Sacred Grains, Poisonous Foods: Rice, Modernity, and Social-Ecological Disembedding in a South Indian Village

Dissertation

zur

Erlangung des akademischen Grades

Doktor der Philosophie

in der Philosophischen Fakultät

der Eberhard Karls Universität Tübingen

vorgelegt von

Heribert Helge Johann Beckmann

aus

Bremen

2022

Gedruckt mit Genehmigung der Philosophischen Fakultät der Eberhard Karls

Universität Tübingen

Dekan: Prof. Dr. Jürgen Leonhardt

Hauptberichterstatterin: Prof. Dr. Gabriele Alex

Mitberichterstatterin: Prof. Dr. Karin Polit

Tag der mündlichen Prüfung: 22.03.2018

Universitätsbibliothek Tübingen, Tobias-lib

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Fig. 1. Statue of a woman carrying harvested paddy on her head at the Kallanai Dam, Tamil Nadu.

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Acknowledgements

Let me begin by extending my deepest gratitude to all my interlocutors, without whom this book would not have seen the light of day. It has, indeed, been a privilege to get to know you and I will always be immensely grateful for your warm hospitality, friendship, patience, and help. I am also particularly grateful to the Panchayat President of Kaveripuram and his extended family for their tremendous and generous support and hospitality. இந்த ஆராய்ச்சியில் பங்கேற்ற உங்கள் அனைவருக்கும் நன்றி தெரிவிக்க விரும்புகிறேன். உங்கள் விருந்தோம்பல், நட்பு, பொறுமை மற்றும் உதவிக்கு நான் எப்போதும் ரொம்ப நன்றியுடைவனாக இருப்பேன்.

I am indebted to my research assistants, Dr. D.T. Chakravarthy, S. Raja, and K. Muruganandam, for their invaluable friendship, guidance, and hard work. Dr. Thomas Malten, S. Chandra, A. Nagajothi, V. Sumathi, S. Sangeetha, V. Rajalakshmi, N. Thenmozhi, K. Prabha, and M. Mangaiyarkarasi have also supported me tremendously, for which I would like to express my utmost gratitude. I further want to thank S. Ananthalakshmi for her friendship and unwavering support.

The SFB 1070 ‘RessourcenKulturen’ at Eberhard Karls University Tübingen has generously provided me with the opportunity to conduct this research and with a stimulating academic environment, for which I am truly grateful. I also want to express my deepest gratitude to my academic supervisor, Prof. Dr. Gabriele Alex, for her invaluable guidance, support, and encouragement.

This research was conducted in cooperation with the Department of Folklore and Culture Studies at Madurai Kamaraj University and with permission from the Government of India, whose issuing of two subsequent research visas allowed me to conduct fieldwork in several stages between 2014 and 2017. I am deeply indebted to Prof. T. Dharmaraj for his strong support and advice throughout the research and to Madurai Kamaraj University for kindly inviting and hosting me as a researcher. Furthermore, I would like to thank Prof. Dr. Karin Polit, Prof. Dr. Steffen Patzold, Prof. Dr. William Sax, Dr. Richard Axelby, Kristie S. Johnson, Prof. Sondra Hausner, Prof. David Parkin, Dr. Vibha Joshi-Parkin, Prof. Harish Naraindas, Prof. V. Sujatha, Dr. Kannan Muthukrishnan, Prof. Dr. Roland Hardenberg, PD Dr. Sabine Klocke-Daffa, and Dr. Jeanne Féaux de la Croix for their timely help, insightful comments, and useful suggestions, which have helped me significantly in improving my work.

I am eternally grateful to my family, who are simply the best, and especially to my late father, Helge, who has motivated and inspired me more than anyone else. To all my friends and colleagues, who have helped me through many difficulties and have made this journey very special, I extend a heartfelt thank you. Finally, I would like to thank my partner, Pallabi, for her unconditional love and unwavering support. I feel truly blessed to have her in my life.

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Notes on Transliteration

The transliteration of Tamil words in this thesis follows the system outlined by Lehmann (1989, xviii), except where indicated through emboldened letters, as showcased below:

Tamil letter	Transliteration
அ	a
ஆ	aa
இ	i
ஈ	ii
உ	u
ஊ	uu
எ	e
ஏ	ee
ஐ	ai
ஒ	o
ஓ	oo
ஔ	au
க	k, **g**
ங	ṅ
ச	c
ஞ	ñ
ட	ṭ, **ḍ**
ண	ṇ
த	t, **d**
ந	n
ப	p, **b**
ம	m
ய	y
ர	r
ல	l
வ	v
ழ	**z**
ள	ḷ
ற	r̲
ன	n̲
ஜ	j
ஷ	ṣ
ஸ	s
ஹ	h

Fig. 2. Transliteration Table for Tamil Letters.

Chapter 1: Introduction

Since Indian independence in 1947, rural India has been undergoing rapid and far-reaching changes. The first decades after independence were characterised by an unprecedented, government-driven wave of 'modernisation' and 'development' efforts (Guha 2008, 206-225). Particularly notable were the changes in agriculture and nutrition associated with the 'Green Revolution' drive to industrialise agriculture and corresponding efforts at improving food security and nutrition with subsidised wheat and rice through the Public Distribution System (PDS). These programmes and measures have deeply transformed the ways in which agriculture is conducted and the social, economic, and ecological relations that surround agricultural production and livelihoods in many places in India. They have further had a stark impact on the quantity and quality of nutritious foods as well as on the kinds of foods available in rural India. While, undoubtedly, a lot of good has come out of these efforts, they have also, from their very inception, been controversially discussed (see for instance Agarwal 1984; Bayliss-Smith/Wanmali 1984; Farmer 1977; Gupta 1998; Hansra/Shukla 1991; Harriss-White 2004; Hazell/Ramasamy 1991; Klatt 1976; Sébastia 2011; Sen 1974; Weber 2011).

While these measures have increased food production and access to food and improved the lives of many people, some of these measures – in connection with the economic deregulation of agriculture – have arguably also contributed to a sense of impending social and ecological crisis among people affected by them (Münster 2015; van de Meerendonk 2020). This perception can partly be seen as fuelled by the clearly visible ecological damage and the increasing ecological difficulties, such as lack of access to irrigation water for farming, degraded soils, falling groundwater tables, and vanishing fauna in many areas subjected to intensive, Green Revolution agriculture. It is also caused by increasing dependence on the vagaries of national and global market prices for cash crops and agricultural inputs and supplies, which have driven many farmers into heavy debt (Kaur Brar 1999; Lerche 2011; Münster 2015; Reddy/Mishra 2009; van de Meerendonk 2020).[1] In addition to this, drastic increases in the incidence of type 2 diabetes, hypertension, coronary heart diseases, and other chronic ailments related to fundamental changes in nutrition and lifestyle have been reported in urban areas, but also in the richer villages of the Southern states (Shetty 2012, S16).

At the same time, political and economic reforms have brought about unprecedented degrees of social mobility, urbanisation, labour migration, and access to formal education in India since the 1990s and 2000s. As a result, rural India has been experiencing a sense of increasing social mobility, as not only the rich but also women and men of more disadvantaged castes and classes strive for education and non-agrarian jobs that take them out of the villages

[1] These and other developments are reported to have caused a wave of farmer suicides across India, the number of suicides among farmers growing by 60% between 1995 and 2005 (Sadanandan 2014, 288-290; Münster 2015; van de Meerendonk 2020).

or improve their social standing within them (Bhagat 2011, 10; Djurfeldt et al. 2008, 57-60; Govinda/Bandyopadhyay 2008, 1-2; D. Gupta 2012; Harriss et al. 2010, 50-54, 61; Kumari 2014; Vikas et al. 2015). The migration of young men and women from villages to cities has been so drastic in some areas, that it has led Dipankar Gupta (2012) to speak of the 'withering' of Indian villages. Simultaneously, the deregulation of the Indian economy in the early 1990s and the establishing of competitive markets as the main vehicles of distributing basic goods and provisions have exposed rural areas to regional, national, and global flows of goods and market dynamics to an unprecedented degree (Ahluwalia 2002; IDFC Rural Development Network 2013). These developments constitute the context for the present study, which is concerned with understanding the ways in which the inhabitants of Kaveripuram,[2] a rice-cultivating village in Thanjavur district in the southern state of Tamil Nadu, act upon and perceive the above and other developments in relation to a resource that has shaped many aspects of their lives for centuries: rice.

In the fertile Kaveri Delta in the north-western part of Thanjavur district, where the research for this study took place, rice plays a major role in every aspect of life. The tropical climate and river-irrigated clay soils in this region are ideally suited for intensive wet-rice cultivation and rice has been the most cultivated crop and most important food resource in the area for almost two millennia.[3] The river Kaveri originates in the neighbouring state of Karnataka and crosses Tamil Nadu from its northwestern border to its eastern coast, where it flows into the Indian Ocean. Shortly before entering Thanjavur district from the West, it is divided into four tributaries at the 'Kallanai,' or 'Grand Anicut,' dam. These tributaries spread out into the deltaic plains of northern Thanjavur. While in other parts of Tamil Nadu – further away from the rivers or at higher altitude – tank irrigation and rain-fed agriculture are more prominent, these four tributaries, in combination with a sophisticated canal irrigation system, have historically allowed for an intensive canal-irrigated agriculture with more than 300 days of cultivation per year and the settlement of a dense population in the deltaic regions (Athreya et al. 1990, 55-56; Planning Commission n.d., 19). Due to the river Kaveri's tributaries and the many smaller channels extending from them, the soils in the Delta consist mainly of alluvium deposits that can be categorised as clay or clay loam soils. These are the soil types most suited for paddy cultivation (Punithavathi et al. 2012, 44; Thiyagarajan/Kalaiyarasi n.d., 3). Thanjavur, which is also known as the 'granary' of South India (Béteille [1965] 1996, 17), has historically sustained large and wealthy societies on the basis of surpluses from paddy[4]

[2] The name 'Kaveripuram' is a pseudonym I have chosen to protect the anonymity of the village and its residents. Such anonymisation of villages is customary in anthropological studies.

[3] Tamil Nadu, located in the very south-east of India with the Indian Ocean at its eastern border, is characterized by a tropical, hot dry to hot moist semi-arid climate. Due to its proximity to the coast, winters and summers are not extreme with temperatures usually remaining above 18 degrees Celsius at the lowest and below 43 degrees Celsius at the highest (Thiyagarajan and Kalaiyarasi n.d., 3; Gajbhiye/Mandal 2000, 3-4).

[4] The word 'paddy' designates rice plants. It also designates rice grains that are still in their husks.

cultivation, and has been supplying other parts of South India and even other countries with its excess rice since the colonial period (van Schendel 1988, 302).

Today, Thanjavur is among Tamil Nadu's primary rice-producing districts as measured in tons of output (Thiyagarajan/Kalaiyarasi n.d., 6). As rice still is the main staple food and one of the most important cash crops today, it is of primary importance for village residents' livelihoods. Paddy and rice further feature in every major religious ritual as embodiments of life, growth, reproduction, and nourishment. Rice and rice meals are offered to deities, ancestors, deceased souls, cows, and other important beings on various occasions. Serving and accepting rice meals is further one of the most important components of all festive events. Caste, class, and gender distinctions and inequalities in the Kaveri Delta are also deeply intertwined with the division of labour in paddy cultivation, in relation to which they have historically developed (see Gough 1981; Menon 1979a, 1979b). Furthermore, since rice is the main staple food and main cultivar, village residents' perception of the local ecology and of the relationship between their bodily health and the environment is fundamentally connected with their perception of the rice they cultivate and consume, which in their view constitutes possibly the main link between their bodies and the environment (Sujatha 2002). In this thesis, I thus use rice as a prism to look at recent changes in society and ecology and how different inhabitants of Kaveripuram as well as different people in the surrounding areas perceive, and act upon, the impacts of these changes.

More specifically, I investigate how changes in the dynamics of rice production, distribution, and consumption brought about by the modernisation and development efforts of the Indian State have affected the ways in which my interlocutors perceive and evaluate rice, the roles that rice plays in different areas of their lives, and the ways in which they interact with and understand their social and ecological environments. As described previously, I mainly focus on the consequences of the 'Green Revolution' measures of the 1970s and 1980s, the economic 'liberalisation' of the 1990s, and the food distribution measures under the 'Public Distribution System' (PDS). However, for the purposes of a broader understanding, I also try to take the consequences of some other important measures of the Indian state into account. I will further provide brief references to important developments that occurred in colonial and pre-colonial times and have significantly shaped the current circumstances.

When I speak of 'modernisation,' I do not imply an understanding of 'modernity' as the progressive opposite of a stagnant 'traditional' other (Latour 2008, 18-19). Neither do I associate modernisation necessarily with the development of better knowledge, technologies, and institutions that universally improve human living conditions (see for instance Rostow 1960; Sachs 2005). Instead, I base my understanding of modernisation and modernity on the view of Giddens' (1990), who identifies a series of historical discontinuities that in his view make 'modern' conditions and ways of living distinct from what preceded them. One of these

discontinuities is the unprecedentedly rapid rate at which people are subjected to pervasive technological, political, socio-economic, and ecological changes. Secondly, these rapid changes occur on unprecedentedly large scales due to the increasing inter-connectedness and interdependence of socio-economic, political, technological, and ecological systems across the globe. Thirdly, there are distinctly new forms of socio-economic and political organisation and collective action, such as nation-states or large-scale, bureaucratic governmental and corporate institutions. Further distinctive aspects of modernity are an almost complete dependence on 'inanimate power sources' – such as fossil fuels – for producing food, clothing, or anything else, and the almost universal commodification of products and work power as associated with capitalism (Giddens 1990, 6).[5]

Indeed, rice production, distribution, and consumption and socio-economic relations in the research area have undergone rapid and deep transformations in recent decades, as they have become increasingly embedded in – and dependent on – large, distant, and spatially distributed networks of governmental and private actors and institutions. These include several governmental agencies and regulations, local government officers and employees, and private companies and merchants, all of whom play a role in the rice economy as well as other areas of life. Furthermore, rice production, distribution, and consumption have become subject to various industrially produced and commercialised agricultural inputs, technologies, and foods. These include different entities and substances, such as 'improved' seeds, mineral fertilisers and other agro-chemicals, or harvesting machines for agriculture as well as rice from elsewhere that is processed and distributed by governmental or private institutions and imported into the area for local consumption. The rice economy thus has become highly dependent on fossil fuels that fuel, for example, the mineral fertilisers, tractors and harvesting machines, lorries for transporting paddy, rice and agricultural inputs, or industrial rice-processing technologies. Furthermore, the relations between different village residents pertaining to various aspects of rice production, distribution, and consumption have significantly been altered under the influence of various development and welfare schemes extended by the state. In this book I investigate and illustrate how all these changes have had

[5] The three most prominent and influential proponents of 'modernisation' theories are Marx, Durkheim, and Weber, each of whom treated modernity mainly in relation to one defining transformation. Marx sees the dynamics of capitalism, that is the creation of national and international markets in which goods and human labour are commodified and where the constant drive for profit and investment opportunities leads tos constant change and expansion, as the motor of modernity (Marx 1969, Marx/Engels 1964; Giddens 1990, 11). For Durkheim, modernity and its rapid pace of change were primarily brought about and characterised by large-scale industrialised production and exploitation of natural resources that went hand in hand with the creation of a complex and ever-adjusting division of labour (Durkheim 2004; Giddens 1990, 11-12). For Weber, the most defining transformation was the 'rationalisation' of human thought and activities through technologies and bureaucratic forms of organisation, but also through adopting scientific forms of knowledge that 'disenchanted' the world, since they were concerned with the technical mastery of life and left no scope for purpose and meaning (Weber 2016; Giddens 1990, 12; Sax/Basu 2015, 3-6). Giddens proposes recognising all these aspects as important for understanding modernity (1990, 12).

a significant impact on how my interlocutors perceive and understand rice, their own bodily constitution and position in society, and the relationship between themselves and their social and ecological environment. I further show how these changes have influenced the ways in which long-standing socio-economic inequalities affect different village residents and the ways in which my interlocutors of different castes, classes, and genders interact with one another in the context of rice production, distribution, and consumption.

The central argument of this book is that the modernisation reforms have led to the 'disembedding' (Giddens 1990) of rice production, distribution, and consumption,[6] as networks of governmental and private actors that span large distances and are, for the most part, unknown to my interlocutors, have come to intervene in, and fundamentally alter, local social-ecological relations. Such actors are, for example, public and private agro-corporations and rice mills, agricultural scientists and research departments, various 'middle-men' (rice traders, harvesting machine owners, government officers, rice shops and vendors), or government institutions that buy paddy from farmers and distribute or sell rice and other goods for consumption to village residents or distribute agricultural subsidies to farmers. Looking at the micro-level of socio-ecological relations and perceptions in and around Kaveripuram, I demonstrate that the interventions of these large networks do not only alter the power relations and socio-economic dynamics involved in the local rice economy, but also have a profound impact on the nature of the rice itself, as well as on the ways in which different people come to interact with and experience – that is 'enact' (Law & Mol 2008) – the rice and the other actors and entities involved in the rice economy. Indeed, I argue that that the 'disembedding' of social-ecological relations has given rise to ontologically distinct modes of 'enacting' paddy and rice as well as other actors and entities involved in the rice economy. I further argue that, while the involvement of these networks has, among other things, undoubtedly led to an increase in food availability, particulary in relation to rice, and has contributed to improving the socio-ecomomic status of poorer people, village residents have also become increasingly alienated from the rice they cultivate and eat, and are facing uncertainty and anxiety in relation to their health and the health of their environment due to the disembedding of social-ecological relations. Additionally, I demonstrate that the socio-economic and political changes resulting from and related to these processes of disembedding have created new contexts in which different village residents enact and understand social inequality – but also equality – between and across different castes and classes differently in relation to rice production and consumption.

Before I introduce the main arguments and topics in more detail, I will briefly discuss how many of the social and ecological features of today's villages in the Kaveri Delta

[6] Disembedding, which Giddens understands as a distinctive feature of 'modernity,' means '... the "lifting out" of social relations from local contexts of interaction and their restructuring across indefinite spans of time-space' (Giddens 1990, 21).

developed historically in relation to wet-rice cultivation and outline the major social-ecological changes that have occurred in Thanjavur and the Kaveri Delta from the first millennium A.D. until today. Having done so, I will introduce the theoretical and analytical approaches on which I draw in this study. I will further briefly summarise the major changes in Kaveripuram's rice economy that are analysed in this study and then introduce the main arguments and observations regarding the consequences of these changes as discussed in the different chapters of this book.

Rice Cultivation in the Kaveri Delta

The social and ecological landscapes in today's Kaveri Delta have been deeply shaped by two millennia[7] of river-irrigated wet-rice cultivation. The earliest time for which considerable written sources exist is the so-called Sangam period, which roughly spans from about 300 B.C. to the 4th century A.D. (Ludden 1985, 15; Narayanan, M. G. S. 1988, 17; Veluthat 2009, 5). In Sangam poetry, the inhabitants of Tamil-speaking South India are distinguished according to one of five environmental regions (*tinai*) in which they live. Each of these regions is reported to have their own characteristic way of life involving distinct sources of livelihood, worship of particular deities, and people with different manners and customs related to the flora, fauna, and environmental conditions in which the inhabitants of these different regions make their living (Ludden 1985, 15; Narayanan, M. G. S. 1988, 19).[8] Out of these five, the inhabitants of the so-called *marudam* regions lived as paddy cultivators in the fertile river deltas.

The Relationship between Rice Cultivation and Social and Ecological Organisation

According to Scott (2009), wet-rice cultivation is highly energy-efficient but also requires constant labour and fixed settlement structures. Furthermore, as all fields will be harvested at similar times and paddy grains can be stored for a long time without spoiling, paddy is easy to assess, collect, and transport for taxation and redistribution purposes, while wet-rice cultivators cannot afford to leave their crops unattended or their irrigation systems unmanaged and are thus easy to assess and govern as well. Wet-rice agriculture thus allows for dense sedentary populations with high degrees of social stratification, state-like structures, and

[7] The earliest evidence of paddy cultivation in Tamil Nadu comes from a pot excavated in Palani taluk, Dindigul district, in 2006 in which two kilograms of paddy dated to the fifth century B.C. were found (Maruthamalai Murugan 2012, 4-5).

[8] There were the hills and forests (*kuṟiñci*). These were inhabited by hunters and gatherers who worshipped the war god *ceeyoon*. In the pastures and thickets (*mullai*) lived pastoralists who prayed to the bucolic god *maayoon*. The parched lands (*paalai*) were known for their fierce fighters and robbers who worshipped the "blood-thirsty' god *koṟṟavai*, while the coastal tracts (*neydal*) were occupied by fishermen who worshipped the sea god *kaḍaloon*. Lastly, the fertile agricultural lands along the river basins were called *marudam*. They were inhabited by agriculturalists who prayed to *veendan*, the god of rain (Veluthat 2009, 24).

military organisation (Scott 2009, ch. 3). Indeed, the inhabitants of *marudam* eventually engaged in a process of war-based expansion into the areas with other forms of subsistence, thereby gradually assimilating their inhabitants and converting more and more areas into irrigated agricultural land (Narayanan 1988, 21; Stein 1984, 73-75).[9] By the 9th century A.D. South India had been divided into vast territories called *maṇḍalam*, each of which was ruled by a different dynasty of kings, whose kingdoms were sustained mainly by paddy cultivation (Ludden 1985, 18). In the Kaveri Delta, the *cooḷa* kingdom (henceforth Chola) reigned from about 850 A.D. with Thanjavur as its capital. The kingdom's prosperity mainly rested on the cultivation of wet rice as a staple crop. Indeed, paddy agriculture provided most of the surplus used to maintain and expand government and the military, mainly through the extraction of agricultural tributes. Irrigation facilities and the area under cultivation were significantly expanded between the 800s and 1100s A.D. along with a bureaucratic, military, and commercial expansion (Gough 1981, 105-107).

Chola rule is intimately tied to the rise of Brahmins as ritual and bureaucratic leaders, who established Brahmanical religious idioms and practices in the cities and villages and became major landholders in the Kaveri Delta. Indeed, the expansion of wet-rice cultivation went hand in hand with the building of Brahmin-controlled temples in villages and the expansion of Brahmanical influence on the villages. Hindu temples, as institutions, were granted large amounts of agricultural land, which was then mostly given to Brahmins for tenancy. Since Brahmins in the Kaveri Delta were ritually prohibited from touching a plough and thus not allowed to engage in cultivation themselves, the latter then sublet these plots to other cultivators. However, the Chola kings also granted a large quantity of lands and villages in the fertile Kaveri Delta directly to different groups of Brahmins. In such 'Brahmadeya' villages, land ownership was often restricted to Brahmin families, who, however, did not cultivate the land themselves. While about one third of villages in the kingdom were ruled by Brahmins, the majority of the villages were administered by Vellalars, a high-ranking caste of land-managing soldiers, scribes, and rich farmers, who similarly did not usually engage physically in cultivation activities themselves. The agricultural land in Chola villages was thus typically owned communally by one or several Brahmin or Vellalar families or kinship communities, who shared the harvest amongst themselves rather than demarcating individual plots (Menon 1979a, 57-59; Gough 1981, 27, 106-113).

[9] This does not mean that the rice cultivating peasants themselves were very powerful. According to Narayanan, for example, peasants living in the fertile river deltas came to be subordinated and governed by so-called *maṟavar* warrior groups during the Sangam period. These groups were dispersed across the less fertile plains and hilly regions of Tamil Nadu but gained ownership over agricultural land and villages by fighting for the kings and eventually settled in the agricultural villages as the peasants' superiors (Narayanan 1988, 20). According to Stein, a recurrent theme in peasant poetry was 'the fear and loathing which men of the hills and dry plains inspired in those of the plains,' the expanding peasant societies of the lowlands had very hostile relationships with the *maṟavar*, who performed raids on peasant villages (Stein 1984, 74-6).

Most of the actual cultivation activities were carried out by communally owned, agricultural slaves (*aḍimai*) under the supervision of their Brahmin or Vellalar owners, or by 'serflike tenants' called Kudiyar who cultivated the lands under share-cropping arrangements (*vaaram*) or rented them as pastures for herding (Gough 1981, 107-8). According to Gough, it is likely that the slaves were mostly drawn from the populations that the kingdom kept conquering during its expansion. Considered 'ritually defiling,' slaves were kept outside of the main villages (*uur*) in separate hamlets (ibid., 106-107). Under Brahmanical influence, these different groups, which were distinguished mainly by their position in the paddy-based economy as slaves, tenants, or landlords, were integrated into an elaborate system of caste distinctions that is still relevant today. Specialised artisan and service castes, such as blacksmiths, barbers, or washers, also formed in relation to the ritual and economic needs of these major caste groups. The service castes, slaves, and tenants received designated shares of the harvested paddy, while the former also received payments in paddy grains for specific services. Money was mainly used by city-dwellers or rich landowners to purchase luxury items in the cities and not common in the villages (Gough 1981, 106-110; Menon 1979b, 17).

As can be seen, the operation and expansion of the Chola kingdom were to a large extent made possible – and shaped by – the expanding wet-rice cultivation. Many defining socio-economic and political patterns that are still influential today – such as the characteristic caste and class systems described by Gough, Menon, and others – were created in relation to this settlement and expansion process. The landscape and ecology in the area were significantly altered and rearranged according to the needs of wet-rice cultivation, too. As early as the second century AD, for instance, the Kallanai dam was erected to artificially divert water from Kaveri River into several channels to improve irrigation in the Delta (Meunier et al. 2015, 105; Gough 1981, 4; Menon 1979b, 15; *fig. 3*). As will be shown, many features of today's landscape and ecology in the research area have been significantly shaped by centuries of continuous, intensive wet-rice cultivation. It is important to note, however, that, while many socio-economic and ecological features stem from the Chola period, significant developments occurred under colonial rule and after Indian independence. In the next two sections, I will briefly describe some of these latter changes.

Developments under Colonial Rule

After the *Chola* kingdom had been conquered by the kingdom of Pandhya from Madurai in 1290, it was reconquered several times by different dynasties, such as the Vijayanagar empire in 1340, Marathan forces in 1674 and the Moghul empire in 1691. During most of this time Thanjavur was thus paying tribute to other kingdoms (Gough 1981, 113-114). Notably, under Marathan rule the intensity of land assessments for revenue extraction increased drastically, leading to the emergence of 'a uniform spirit of independence and resistance among the

landholders,'[10] but also to the rise of a specific class of large, powerful landowners, who represented the less powerful landowners in their respective areas vis-á-vis the state. This powerful landholding elite would remain highly influential during colonial rule (Menon 1979b, 17).

Fig. 3. Water running through the Kallanai dam in 2014.

Between the 1600s and 1700s, European 'Capitalist Merchant Companies' gained a foothold in Thanjavur, being granted shares in land taxes by the rulers and importing horses, gold, silver, weapons, ammunition, and baser metals, while they exported textiles, spices, pearls, drugs, and other items. Local merchants and artisans became increasingly dependent on these companies. The years between 1749 and 1799 constituted a period of war, as French and British companies fought one another, subjugated local rulers, and extracted tribute from the latter (Gough 1981, 115-116).

The British East India Trading Company officially annexed Thanjavur in 1799 and ruled there until 1858, when the British government asserted direct rule over India. Under British colonial rule, several major changes occurred. Revenue extraction was one of the main

[10] Madras District Gazetteers, Tanjore 1906. Madras Government Press, p. 170, cited in Menon 1979b, 17.

objectives of the British administration and villages were therefore burdened with extreme revenue demands. The forms of common landownership prevalent in Thanjavur were therefore gradually converted into a system in which plots were exclusively owned by individuals (Gough 1981, 118-120; Menon 1979b, 17-21). As a result, common village lands, the use of which had been important for agricultural labourers, small cultivators, and other economically deprived village residents, disappeared in the 19th century, as they were either claimed by the government or as private land by landlords (Menon 1979b, 19; van Schendel 1988, 307-309). Around the turn of the 20th century, when the individualisation of landownership had mostly been accomplished, a private market for land developed, as individual families from the landed elite began selling their lands, some of them moving out of the villages to pursue formal education or economic opportunities. Toward the late 19th century and throughout the 20th century, absentee landlordism and the out-migration of rural elites, primarily of Brahmins, to the cities and towns became increasingly common. Socio-economic differentiation between landowners, tenants, and merchants decreased, as some tenants benefitted from profitable fixed tenure agreements (*kuttakai*) with absentee landlords and some of the landed elite sold their lands to tenants and merchants, who thus gradually acquired village lands (van Schendel 1988, 307-309).

Under British rule, slavery was abolished in the mid-19th century. However, facing the loss of common lands and having little assets to move out of their dependence on landlords, the situation of many former slaves remained the same or even worsened. In slavery's stead, the *paṉṉai* system was introduced, in which landless labourers worked as so-called *paṉṉaiyaaḷs* for individual landowners who exclusively commanded over their and their family's labour in return for steady, low wages paid mostly in paddy, often over several generations. While this relationship resembled that of slavery, landowners increasingly tended to shorten *paṉṉai* contracts, thus making the *paṉṉaiyaaḷs*' position insecure, while the latter often did not have the freedom to leave of their own volition, due to their indebtedness to their landowners. On the other hand, *paṉṉaiyaaḷs* also had certain rights, such as building shacks on their landowner's lands for dwelling and cultivating small plots behind their houses for sustenance. They were further entitled to collect and keep the spilled paddy grains on the threshing floor and to receive aid and gifts from their patrons for important ceremonies, such as weddings, and for important festivals, such as the harvesting festival *poṅgal* (Menon 1979b, 22-25).

In 1813, the British Parliament, by removing the exclusive trading rights of the East India Trading Company and introducing specific tariffs, virtually stopped the import of Indian manufactures, especially textiles, into Britain and other parts of Europe and thereby ruined Thanjavur's large weaver population. Subsequently, Thanjavur started importing more and more manufactured goods from Britain. At the same time, the colonial period was marked by

the increasing integration of Thanjavur's agriculture and labour force into international trade relations. Never having exported rice to a significant degree before, Thanjavur was now used by the British to supply their plantations overseas and in South India with rice and indentured labourers, the forceful or deceitful recruitment of poor labourers being facilitated by the abolishment of slavery (Gough 1981, 118-121). According to Gough (1981, 128), from 1850 to 1900, between one fifth and one third of Thanjavur's gross produce in rice was exported for this purpose each year. During this period, rising prices for rice motivated landowners and tenants to increasingly produce for the market and made them more dependent on the latter as well (van Schendel 1988, 304-306). The British period also marked the monetisation of the villages. Tax payments were transformed from grains to money, the increasing involvement of villages in the rice trade brought more cash into the villages, and in the early 20th century *paṉṉaiyaaḷs* started receiving part of their wages in cash (Menon 1979b, 23).

As can be seen, under colonial rule Thanjavur's rice economy underwent several changes that brought it closer to becoming a 'modern,' 'capitalist' economy. Private property in land was introduced and land was increasingly commoditised. Slavery was abolished, but the freed agricultural labourers were often proletarianised, their position becoming increasingly insecure, as landlords could dismiss them and hire other labourers, who were equally dependent on selling their labour. Furthermore, rice and labour were exported, and money made its inroads into the villages, making markets a more important means for earning income and acquiring goods. However, the colonial period also saw additional ecological engineering by the government to increase the area under river-based irrigation. In the 1920s and 1930s, the large Krishna Raja Sagar and Mettur reservoirs upstream on the Kaveri River as well as major canals that partly irrigated the south-western areas of Thanjavur district with water from Kaveri River were built (Meunier et al. 2014, 105; Gough 1981, 4-5). This extension in river-irrigated area led to the distinction between the 'old' Kaveri Delta, which comprises the originally river-irrigated areas of the Delta, and the 'new' Kaveri Delta, the latter term referring to the areas now benefitting from the extended river-irrigation through the canals (Gough 1981, 4-5).

Post-Independence 'Modernisation' Reforms

After independence, India's new government engaged in a strong drive towards modernisation and development, and the National Planning Commission, which had been founded shortly before independence, started introducing ambitious five-year plans for growing different sectors of the Indian economy (Guha 2008, 201-208). A significant part of these efforts was, and had already been towards the end of colonial rule, a desire to 'modernise' and 'improve' agricultural production in order to feed a growing population (Guha 2008, 216-218; Mencher 1974a, 309). In 1960, Thanjavur became the first and only district in Tamil Nadu to participate

in the new ‘Intensive Agricultural District Programme’ (IADP), which from that year onwards was gradually introduced in the seven districts in India deemed most promising for quickly raising yields in staple grains and in 1961 was integrated into the third five-year plan (1961-66). The programme’s main objective was intensifying agricultural production, especially of staple grains, by providing a ‘package’ including improved seed varieties, improved irrigation, increased use of mineral fertilisers, new tools and implements, the extension of credits, pest protection for plants, and other measures. Subsequently production in these districts was found to have risen by 30 percent on average and in 1964 a follow-up programme called ‘Intensive Agricultural Area Programme’ (IAAP), using a revised and less intensive approach, was implemented in 150 districts in India, thereby covering about 20 to 25 percent of India’s cultivated area (TNAU Agritech Portal n.d.).

From the late 1960s until the late 1980s, many fertile parts of rural India, including the Kaveri Delta, were dominated by what has been termed the ‘Green Revolution.’ This was a large-scale programme designed to boost agricultural output and increase the production of important staple crops significantly in order to stabilise food supplies, especially for the poor, without increasing the amount of land under cultivation. It was mainly financed by the United States Agency for International Development (USAID) and the Ford and Rockefeller Foundations (Miller 1977, 192). The tools of choice were newly developed hybrid cultivars, the so-called ‘high-yielding varieties’ (HYVs), of the main staple crops wheat and rice. These were to be cultivated in combination with mineral fertilizers as well as pesticides, herbicides, and other agro-chemical inputs. Furthermore, the extension and improvement of irrigation facilities and the application of new irrigation technologies, such as tube wells, as well as the mechanisation of agriculture were encouraged and, in order to improve the distribution of agricultural produce and increase the commercial income for producers, the Indian government took different measures toward the extension of markets, credits, and storage and procurement facilities (Mencher 1974a, 309-10).[11] In 1965, the Food Corporation of India (FCI) and, in 1972, the Tamil Nadu Civil Supplies Corporation (TNCSC) were founded. While the Food Corporation was initially concerned with buying and selling wheat and rice, it was later expanded to include several other grains and pulses, as well as oil, sugar, and fertilisers. Similarly, the TNCSC traded grains and pulses, oil, salt, cement, and kerosene (Harriss 1984,

[11] The term Green Revolution is usually used by scholars to designate the introduction of so-called high-yielding varieties (HYVs) of mainly wheat and rice, but also increasingly of other crops. Most scholars further include the large-scale use of mineral fertilisers and the introduction of measures and technologies for intensified and controlled irrigation in the definition, since both these developments were part of the package applied. Indeed, these three elements are so vitally connected that scholars have also spoken of the ‘seed-fertiliser revolution’ or the ‘blue revolution.’ Wider definitions of the Green Revolution also include the use of pesticides and other chemical inputs, mechanisation, and the supply of credit, inputs, and extension services (Jirström 1996, 14-16; see Kaur Brar 1999, 129). When I speak of the Green Revolution in this thesis, I refer to this last, most inclusive definition, since all the above-mentioned elements were applied in the Kaveri Delta as part of agricultural intensification efforts and therefore impacted people’s livelihoods.

59). Marketing cooperatives for farmers had been founded in Tamil Nadu in the early 1950s and were followed by the introduction of harvest storage schemes run by the state from 1964 onwards, while state financing schemes to benefit farmers were introduced in 1969 (Harriss 1984, 59). Mineral fertilisers and other inputs needed for the new way of practicing agriculture were stored in and provided to farmers through the facilities belonging to such government-operated institutions (Münster 2007, 61).

The Kaveri Delta was one of the locations where the Green Revolution measures were most comprehensively and intensely introduced. Already by the early 1970s, due to the use of hybrid paddy seeds, a 'massive increase' in facilities improving irrigation, and sufficient rainfall, Tamil Nadu had experienced a 'striking increase in rice production' and thus turned from being a rice-importer in the 1950s to becoming a rice exporting state in the late 1960s (Mencher 1974a, 309, 311). The 1980s saw continuing and significant growth in agricultural production in Tamil Nadu as well as in India as a whole, while growth in rice agriculture slowed down in the 1990s (Bhalla/Singh 2009, 35-36; Harriss-White/Janakarajan 1997, 1470-1473; Janaiah et al. 2005, 5997-5998).

In tandem with the growth of agricultural production, the National and Tamil Nadu Governments made attempts at improving the well-fare of the rural population and reducing rural social inequality. In 1952, the 'Tanjore Tenants and Pannaiyal Protection Act' guaranteed the lessees of land 40%, and after a later modification 60%, of the produce of the land they cultivated. Although this act was not implemented in many cases, it did improve tenants' bargaining position vis-à-vis the landowners (Béteille [1965] 1996, 17-18). In 1970, the Tamil Nadu Government passed an amendment to the previously introduced Land Ceiling Act, which reduced the maximum amount of land to be legally held from 30 to 15 acres per person.[12] Even though it was circumvented by powerful landowners in many places, this act eventually did lead to some redistribution of land and thus benefitted poorer tenants and agricultural labourers (Harriss et al. 2010, 51-52).

In order to protect consumers from food shortages and farmers from price fluctuations, the 'Public Distribution System' (PDS), through which the government purchased staple foods and redistributed them to urban consumers, was founded in India shortly before the end of colonial rule (Harriss 1984, 59; Kattumuri 2011, 11; Tarozzi 2005, 1308). In the 1980s, India extended the PDS on a large scale and amended it to include rural households, so as to increase food security and alleviate poverty. Through this massive programme, rice and wheat as well as other essential commodities were distributed to large parts of the population at heavily subsidised rates through so-called 'ration shops' erected in the villages. Especially the poorer segments of the population came to rely on the subsidised rice, pulses, and other items sold. Since June 2011, Tamil Nadu ration shops provide between 12 and 20kg of rice per

[12] See http://www.landreforms.tn.gov.in/LandReforms.html#Act_3; last consulted 26.05.2014.

month free of charge to virtually every rural household holding a so-called 'ration card.' Furthermore, in 1956 and more extensively in 1982, meal schemes for school children were introduced in Tamil Nadu, providing children in government schools with a free lunch every day (Harriss-White 2004, 52-56; Kattumuri 2011, 11; Khera 2011, 36-41; Tarozzi 2005, 1308-1309). Currently, the government of Tamil Nadu purchases massive amounts of paddy every season to distribute them as free rice to ration card holders. Since October 2002, the purchasing of paddy for the PDS in Tamil Nadu has been carried out solely by the Tamil Nadu Civil Supplies Corporation (TNCSC).[13] According to its official website, the TNCSC runs a large number of 'Direct Purchase Centres' across rural Tamil Nadu in order to ensure that the purchasing of paddy is conducted directly between farmers and TNCSC staff 'without involving any intermediaries.'[14] In Thanjavur district alone there were 82 Direct Purchase Centres during the time of the research.[15]

In relation to these and other agricultural, social, economic, and political modernisation reforms, the socio-economic and political positions of various groups of people in the villages, as well as their relations with one another, changed significantly. In his anthropological study of a village in the Kaveri Delta conducted between 1961 and 1962, for example, Béteille observes and describes a number of important developments, such as the out-migration of members of the Brahmin and wealthier non-Brahmin castes to find education and employment in the cities and towns, the recent introduction of village panchayats as elected institutions governing the villages while at the same time being part of larger political and bureaucratic networks, and the increasing integration of the villages into the relations of a larger market economy. Béteille argues that with such social, economic, and political changes, regional society is transformed from a 'traditional' society based on caste relations to an increasingly 'modern' society where several areas of social life become 'caste-free' and socio-economic status (or 'class') and power become more independent from caste membership. Land is increasingly sold to members of other than the traditionally landowning castes and formal education is also increasingly accessible to members of marginalised castes and classes, as are urban white-collar jobs. Béteille states that 'the introduction of the cash nexus and the development of market mechanisms' have created more differentiated classes of people in Thanjavur, as land and other properties are less likely to remain within the same lineage or caste. Power is also increasingly detached from caste, since with the new elected panchayat institutions, an individual's ability to draw on political support networks from outside the village and establish themselves at the centre of relations of patronage within it becomes more

[13] According to the TNCSC's official website [http://www.tncsc.tn.gov.in/html/proc.htm; last accessed on the 16.11.2016].
[14] ibid.
[15] According to the TNCSC's official website [http://www.tncsc.tn.gov.in/html/dpc.htm#25; last accessed on the 16.11.2016].

important than belonging to reputable high-caste lineages of landholders. As the power of the formerly dominant Brahmins crumbles in the area, the lower-ranking Kallar and Vellalar castes take over most of the land and political power, while members of all castes, including the Dalit[16] castes, increasingly use newly found political and economic opportunities for improving their socio-economic position (Béteille [1965] 1996, 1-9). Béteille interprets these changes as part of a 'modernisation' process, which '… tends to loosen the rigidity of the traditional structure and to provide greater choice to the individual in entering into interpersonal relations which cut across the boundaries of the old, established groups' ([1965] 1996, 6).

Comparing her findings in Tamil villages from the later 1970s to data from her village studies in the 1950s, Gough similarly finds that the Green Revolution and land reform measures have led to changes in land ownership, in that land is increasingly owned by 'rich or middle peasants,' merchants, mill owners, and other people from lower ranking, non-Brahmin castes (Gough 1977, 52-53). However, she also criticises that land ownership is increasingly concentrated among 'a new class of middle-ranking rich farmers,' absentee landownership is on the rise, Dalits have only gained ownership of a marginal portion of lands, tenants are increasingly evicted, and the number of landless, casual labourers has risen starkly in comparison to the 1950s (Gough 1978, 399; Gough 1977, 52-55).

Indeed, important empirical contributions to the debate about the socio-economic and political effects of the Green Revolution in India were village surveys and ethnographic studies of villages that were conducted by social scientists in the 1970s and 1980s (such as Gough 1977; 1978; Harriss 1977a; 1977b; Mencher 1974a; Mencher/Saradamoni 1982; Mencher et al. 1979). These studies, which started in the early 1970s, predominantly focused on areas where Green Revolution technology was thoroughly implemented and sought to analyse how the new technologies and regulations impacted different groups within the local population, mainly focusing on farmers and agricultural labourers (Jirström 1996, 36). One of the earliest ethnographic articles on the Green Revolution in Tamil Nadu was Joan Mencher's contribution in the Economic and Political Weekly from early 1974. Arguing that '[w]*hat is actually happening can often be seen most clearly by observation on the ground and by looking at who is actually doing what – not just by examining aggregate statistics*,' she severely criticises the implementation of the Green Revolution and related land rights legislation (1974a, 309; author's emphasis). According to Mencher, what could be observed on the ground was an increase in '... economic class differences, and (at least covert) inter-group tension' in the areas where rice production had been intensified in the wake of the Green Revolution

[16] In this study, I refer to the so-called 'untouchable' or *aadi dravida* castes as Dalits. Dalit means 'ground down' or 'broken to pieces' in Marathi and Hindi. It refers to the discrimination and violence experienced by so-called 'untouchable' castes. The term is used by many members of these castes as well as by both Dalit and non-Dalit political activists and social scientists to denote a pan-Indian identity for members of these most-marginalised groups (Rao 2008, 11).

(Mencher 1974a, 311). Furthermore, she argued, Tamil Nadu state had taken an approach to intensifying agriculture that targeted 'middle and large landowners' while leaving the political-economic status quo intact and avoiding redistributive measures in the interests of the poor, as the landowners' political power was substantial and the poor 'very divided' (Mencher 1974a, 311). One major critique put forward by Mencher is that while HYV seeds would have greatly contributed to improving especially small farmers' yields and thus their financial situation, there was hardly any possibility for them to acquire the new seeds legally.[17] In relation to redistributive measures, such as the land ceiling act, Mencher found that often land ceiling legislation was circumvented locally, as landowners had plots registered in the names of different relatives or even in the names of servile labourers (Mencher 1974a, 311). While Mencher's and Gough's concerns were shared by others (for instance Kurien 1980), other (and later) studies provided a different picture. Harriss (1977a, 34-35), for example, argued that there was insufficient evidence of an increase in class tensions between landowners and agricultural labourers due to the Green Revolution. In a later study of five villages in the (former) North Arcot district of Tamil Nadu, Harriss (1991) further noted that land ownership among poorer village residents had increased overall in comparison to the early 1970s. He also argued that in most of the villages studied, demand and wages for agricultural labour had increased and working conditions improved, as more employment opportunities outside of agriculture had become available to poorer village residents (Harriss 1991, 61-66). In their study of the agrarian economy in the Kaveri Delta in the Tiruchirappalli District of Tamil Nadu, Athreya et al. (1991, 108-125) similarly found that the number of landless households had gone down and the amount of very large holdings had decreased significantly, both of which they connected to the government's land reforms.

In the early 1990s, India went through sweeping economic reforms that deregulated economic activity and lead to significant industrial growth. In line with these reforms, governmental support programmes providing farmers with HYV seeds, irrigation technologies, and loans with low interest rates were significantly rolled back, farmers now having to procure these items on the open market. Furthermore, farmers' cash crops now had to compete with imports from abroad. Agriculture started to fall into an increasing crisis with farmers being confronted with falling farm-gate prices for cash crops and rising input costs amplified by their dependence on agro-chemical inputs and purchased seeds. Furthermore, cultivators faced soil degradation and falling groundwater levels as consequences of the excessive use of

[17] Agricultural extension officers and other government officials involved in the implementation, according to Mencher, saw the small farmers as unproductive and inefficient and thus not worthwhile targets for the new technologies. While the officers focused on large and medium farmers, these farmers were generally slower to take on the new seeds and cultivated them only on smaller portions of their holdings, as they faced less pressure to intensify cultivation to improve their livelihoods (Mencher 1974a, 317-320).

mineral fertilisers and tube well irrigation.[18] Agricultural growth almost came to a standstill in the 1990s and 2000s, farmers' real per capita income stagnated or even decreased, and many farmers were forced to take credits from private money lenders, thus facing rising levels of debt. These developments also tragically led to a stark increase in farmer suicides across many regions in India (see Lerche 2011, 104-108; Mishra 2007, 3-4; Sadanandan 2014, 288-290; Münster 2015; van de Meerendonk 2020). In the Kaveri Delta, these problems were intensified by increasingly frequent droughts and conflicts over water with the neighbouring state of Karnataka, which controls the supply of water in the Kaveri River upstream of Tamil Nadu.[19] Accordingly, a trend towards increasing diversification of livelihoods among rural peasants and workers and an increasing overlap between rural and urban employment were registered across India in recent years (IDFC Rural Development Network 2013). In 2006, the 'Mahatma Gandhi National Rural Employment Guarantee Act' (MGNREGA) was introduced by the Central Government to tackle growing unemployment and irregular income among agricultural and daily wage labourers in the villages, which had partly been caused by the mechanisation of agriculture. This act guaranteed 100 days of paid work for every adult individual who registered for it, thereby giving poor village residents an additional source of income and making agricultural labourers less dependent on landowners, especially in combination with the land rights and tenancy reforms and the support through the monthly free rice and the free noon meals in schools (see Harriss et al. 2010, 51; Kumari 2014, 163-164, 169). Indeed, Harriss et al. find in their re-study of a previously studied agricultural village

[18] Kaur Brar (1999), in her macro-study of the ecological implications of the Green Revolution in Punjab, found that the ground water table had fallen significantly in many areas of Punjab, as, among other developments, tube wells and other water-intensive irrigation technologies had been established, but rainfall had also decreased in the preceding two decades. Primarily due to 'over reliance on paddy-wheat rotation,' the texture, structure, and fertility of local soils had also changed, soils showing deficiencies in both macro- and micronutrients. The high degree of mono-cropping had further increased crop pests and the now necessary use of pesticides was harmful to the 'soil life,' while nitrogen fertilisers had a polluting effect on the groundwater. Pesticides and fossil fuels used in agriculture further had a negative impact on the air quality in rural areas, an effect that was amplified by the now mechanised post-harvest processing of the grains. These ecological damages had a significant impact on farmers, as costs for fertilisers, irrigation, pesticides, and land reclamation rose and the water scarcity fuelled conflicts over sharing river water (Kaur Brar 1999, 130).

[19] In Tamil Nadu, the groundwater crisis is particularly concerning. In 2007, the Indian Ministry of Water Resources had already classified ground water reserves in 45% of all development blocks in the state as either 'overexploited' or 'in a critical state,' in comparison to an average of 15% across India (Ministry of Water Resources, GoI, referenced in Aubriot 2013, xxxix). According to the Policy Note for 2013-2014 of the Tamil Nadu Agricultural Department, Tamil Nadu is a 'water starved' state, as with an estimated 900 cubic metres of annual per capita availability of water it falls way below the Indian average of 2200 cubic metres per capita (Damodaran 2013, 2). In the agricultural year of 2012-2013, the drought throughout Tamil Nadu was so severe, that the estimated area under rice cultivation (17.36 lakh hectares) and anticipated yields for rice (54.84 lakh metric tonnes) fell way below the targets set by the state government (22 lakh hectares and 86.50 lakh metric tonnes; Damodaran 2013, 13). In the Kaveri Delta, there have been severe irrigation problems due to water shortages for many years now. In 2012, the irrigation water from the Mettur dam was released more than three months late (on the 17th of September, rather than on the date scheduled, the 12th of June) due to lack of water in the reservoir (Damodaran 2013, 7). On the conflict between Tamil Nadu and Karnataka over the Kaveri water, see, for instance, Lakshmana/Gopal 10.01.2018.

in Villupuram District of Tamil Nadu that agricultural wages have risen significantly when compared to the previous study conducted in 1981 (Guhan/Mencher 1983a; 1983b) due to village residents' increasing education and mobility, growing job opportunities outside of agriculture and thus less dependence on agricultural work, and the support of the government schemes described above. They further argue that the situation of Dalits in the village – regarding education, control over assets, and independence from higher-caste landowners – also has significantly improved (Harriss et al. 2010, 55, 59-60).

As can be seen, over the last 60 years villages in the Kaveri Delta, as elsewhere in India, have increasingly been subjected to the influence of large-scale schemes and programmes carried out by governmental institutions as well as to the influence of capitalist merchants and institutions, all of which operate across large distances. The rice economy in the Kaveri Delta has, thus, been thoroughly transformed from a largely self-sufficient system fuelled by organic manure, agricultural labour, animal power, canal irrigation, and self-bred seeds to an industrialised, partially mechanised, and significantly ground-water-irrigated system depending on government institutions and the open market for agricultural inputs and services. Many farmers now sell their paddy harvest to governmental and private buyer institutions, while most village residents now purchase rice for consumption from the market or procure it from the government-operated ration shops. Furthermore, due to various government schemes and regulations as well as new opportunities for education, employment, and business ventures after the economic liberalisation of the 1990s, long-standing socio-economic inequalities in relation to caste and the division of labour in agriculture have progressively become less rigid and upward social mobility is achievable for many more people than it has been even twenty years ago. At the same time, agriculture is in crisis, those farmers without access to tube wells facing severe difficulties to irrigate their crops and being burdened by increasing debt, the situation being so dire that in 2017 Tamil Nadu farmers engaged in a several months-long protest in Delhi, receiving ample media coverage.[20] Throughout this book, I describe and analyse the impacts of these developments in relation to rice in and around the village Kaveripuram, the founding of which probably dates back to Chola times. In the next section, I will outline the theoretical and conceptual approaches that guide this undertaking.

[20] See, for example, Basu 01.08.2017 and TIMESOFINDIA.COM 13.04.2017.

The Enactment of Rice and the Description of Situational Interaction in a Complex, Social-Ecological System

The Rice Economy as a Social-Ecological System

As illustrated previously, Kaveripuram, the village in and around which I conducted most of my research, lies directly on the banks of Kaveri River in one of the primary rice-growing regions in India. It is surrounded by paddy and sugarcane fields and the local ecology has been shaped by centuries of intensive wet-rice cultivation, as have the relationships and interactions between humans and other-than-human actors and entities. The environment surrounding the local villages is arranged into paddy and sugarcane fields separated by bunds and irrigation channels. Various animal, plant, and fungi species inhabit the paddy fields and are subject to human actions in particular ways. Crows, for example, are offered food once a month as a tribute to human ancestors, while crabs and snails are caught and consumed as dietary supplements. Certain plant species are ripped out as weeds, while others, like coconut trees, are deliberately planted along irrigation channels and behind houses. The amount of water that reaches Kaveripuram in the Kaveri River is regulated by several large dams located in today's states of Tamil Nadu and Karnataka, the timing and quantity of water releases being subject to negotiations between farmers and state governments as well as between the two state governments (see, for example, Lakshmana 12.09.2016).

Indeed, many of the ecological conditions and relations that comprise the regional and local systems at hand were modified by the human inhabitants over centuries, as the local ecology was shaped by continuous, expanding, and intensifying rice agriculture. In return, the human inhabitants' social system, the ir understandings of the world, and their ways of interacting with one another and their surroundings have been significantly shaped by their interaction with this eco-system, so that local livelihoods and social relationships, institutions, and identities are closely tied to the ecological processes of paddy cultivation (see Athreya et al. 1990, ch. 3 and 4; Gough 1981; Veluthat 2009; compare Bartelheim et al. 2015; Lansing/Fox 2011; Lansing 1987).[21] As will be shown in the following chapters, changes in the ecology or in the physical qualities of rice in the research area thus feed back into – and have an impact on – human individuals, their bodily health, and their social relationships, while

[21] As illustrated earlier, the division of labour and the distribution of ownership of the means of production in paddy cultivation, for example, are closely tied to caste categories, which have developed over centuries in close relation to the cultivation of paddy (see Gough 1981, Menon 1979a, 1979b, Veluthat 2009; see also Chapters 2 and 8 in this book). However, while paddy cultivation can be seen as having had a significant influence on the formation of caste groups and classes, as well as division of labour between genders, in the area, there is by no means any simple, direct connection between ecological and social processes and relationships. This is especially so, since Thanjavurian villages have historically been shaped by larger political systems for a long time. They were part of kingdoms for hundreds of years, before becoming subject to British colonial exploitation and then part of the post-colonial Indian nation state.

socio-political and technological changes feed back into – and have an effect on – the ecology. When contextualising my interlocutors' narratives about changes in rice production, distribution, and consumption, it is thus impossible to separate social, political, or cultural factors from biological and ecological processes. Due to the insolvable entanglement between humans, agriculture, and environment in the Kaveri Delta, this study conceptualises Kaveripuram, the surrounding areas, and their human and other-than-human inhabitants as parts of a 'social-ecological system' (Gunderson 2008; Holling 2001; Redman et al. 2004).

According to Redman et al., a social-ecological system is 'a coherent system of biophysical and social factors that regularly interact in a resilient, sustained manner' (2004, 163). Such a system comprises several 'critical resources', the use and 'flow' of which 'is regulated by a combination of ecological and social systems' and constitutes a complex, dynamic system characterised by continuous adaptation (ibid., 163). In the case of the area around Kaveripuram, the economy has been based mainly on rice cultivation for more than a millennium. Rice is therefore an absolutely central resource, around the (re-)production of which the system has been revolving, related 'critical resources' thus being paddy seeds, river water, the agricultural soils and the manure that nourishes them, agricultural labourers who attend to the paddy seeds and plants, and various other actors and entities needed for cultivating rice. As a central resource, rice has been a staple food for village residents and a major resource for conducting important rituals. It was further used as currency for centuries. Rice being such a central resource in the system at hand, my interlocutors' perceptions and classifications of social and ecological processes are, as I will argue, significantly related to rice cultivation and consumption, as are the connections they establish between changes in the ecology, changes in the rice, and changes in their bodies. My assumption here is thus that, with the structural changes brought about by the Green Revolution and other modernisation efforts to which the system was subjected over the last decades, the resulting changes and adaptations in the system have also markedly influenced my interlocutors' relationships with rice, each other, and their environment and the knowledge, ideas, and perceptions they hold in relation to them. This raises the question of how to conceptualise and analyse the relationship between the actions, perceptions, and understandings of human beings and the social-ecological systems in which they live.

Enactment and Situational Interaction in an Open Social-Ecological System

In response to recent analytical and theoretical approaches emphasising the importance of praxis, embodiment, materials, materiality, and other-than-human actors and entities for anthropological inquiries (for instance Callon 1986a; Csordas 1994a; Harvey 2013; Ingold 2000; 2011; Jackson 1983; Jackson/Piette 2015; Knappett/Malafouris 2008; Latour 2005; Law 1992; Marchand 2010; Mol 2002), this study starts from the assumption that human

knowledge, concepts, values, and perceptions are 'grounded' in bodily experience and perception and in human beings' bodily involvement and interaction with – and experience of – themselves and other actors and entities (whether those are humans, animals, plants, things, or substances) in concrete situations (Cohen 2010, 194; Csordas 1994a; 1994b; 1993; Ingold 2000, ch. 2; Fodor 1998; Marchand 2010; 2003, 30-31; Ricoeur 1991, 41-42, cited in Csordas 1994b, 11). Based on such situational interaction and experience, we, as human beings, come to make sense of ourselves, others, and our environment in relation to our own bodily sensations and feelings. This means that our ideas and understandings can be expected to vary according to our specific involvement in interactions, social-ecological processes, and institutions, our socio-economic positions, and our past experiences. How someone or something is perceived and how their roles in different contexts are understood by a specific person thus cannot be described by only referring to generalised cultural models of mental structures or to the discursive negotiation of symbolic meaning (for instance Lévi-Strauss 1973; Miller 1987; 1998; see also Hahn 2005). Indeed, following Law and Mol (2008), it is through making a 'perceptible difference' in a particular situation, that a person or an entity, such as rice, becomes manifest or graspable and thus acquires substance and meaning for us.[22] Law and Mol argue that what we understand as the very nature of any entity is brought into being, or 'enacted,' through its interaction with other entities in concrete situations:[23]

> 'Active entities are relationally linked with one another in webs. They make a difference to each other: they make each other be. [...] entities give each other being: [...] they enact each other' (Law and Mol 2008, 58).

In other words, conceptions and meanings of someone or something are enacted through engagement in particular situations shaped by certain constellations of human actors and other beings, things, substances, and environmental conditions. It is, however, important to note that an actor or entity does not have to be physically present to be enacted. When someone or something is described or talked about or even thought about by us, this also constitutes a case of enactment, since also in such a situation, there are specific actors, entities, circumstances, or associations (for example through particular memories) that influence the way someone or something is enacted in speech or thought.

If one actor or entity becomes meaningful through his, her, or its enactment in specific situations, then the other actors and entities involved in these situations can be understood as enacted as meaningful based on their relevant attributes and agency in those situations, too.

[22] According to Law and Mol (2008, 58), every entity that makes a 'perceptible difference' in a situation can be seen as an actor influencing that situation.

[23] Law and Mol (2008, 57-59) argue that how an actor or entity, whether human or not, comes to act or be perceived, what an actor means to another actor, or how an actor is perceived by another actor is dependent on the interaction of these actors within a specific network activated in a specific situation (see Latour's actor-network approach described in the next section of this chapter).

According to Graeber (2001, 58), for example, not only do productive activities, such as the production, distribution, and consumption of rice, entail both engaging with things in praxis and thinking about, planning with, and conceptualising them in an abstract manner (i.e. enacting those things both practically and conceptually). Individual humans further engage in various social relations with other humans to coordinate their productive activities, thereby producing and reproducing social groups as well as rules of behaviour, property regimes, divisions of labour, and so on. It follows that this also includes:

> '... producing the producer as a specific sort of person (seamstress, harem eunuch, movie star, etc.). In cooperating with others, a person defines herself in a certain way – this can be referred to as the "reflexive" element in action. It also usually means being ascribed certain sorts of power or agency, or actually acquiring them' (Graeber 2001, 59).

By producing something in cooperation with others, a person thus partially creates and recognises him- or herself as a certain kind of human – for example an agricultural labourer or a shop owner – who has specific skills as well as certain kinds of agency in relation to other humans, beings, things, and situational circumstances. Thus, rather than existing in some socially or culturally fixed way, all persons, beings, things, social groups, and identities are constantly produced – or enacted – in the pursuit of fulfilling needs through productive activity and the engagement with resources – such as rice – in particular environments. In the process of such activity and in response to the social relations, rules, and identities established in relation to it, new needs, desires, and obligations are created and lead to new or repeated productive activities and engagements with resources. This circular dynamic is repeated over and over again, always in a potentially different way than before (Graeber 2001, 58-59).

As human beings, we thus continuously enact (i.e. produce, maintain, and alter) the resources with which we engage (e.g. rice varieties evolving over many cultivation and selection cycles) as well as the social relations, groups, and identities surrounding our activities and the production, distribution, and consumption of these resources (Bartelheim et al. 2015, 39-41). We further come to understand our own significance and role, as well as those of other humans and other beings and things, within this system of interacting actors and entities. While this is true for human interactions with the resource rice in this case, the same dynamics apply to relationships that we entertain with other species, such as domesticated animals, as well as with environmental elements and forces, such as agricultural soils or water bodies, that are also part of our social-ecological system, are also used as resources, and thus also need (re-)production, maintenance, and alteration efforts. The enactment of actors, entities, and social relations and identities through the engagement with resources, such as rice, is therefore a constant creative process and any social-ecological system is dynamic and in constant flow. It is comprised of many different beings, substances, materials, and processes that interact in complex ways. Moreover, it is an open system in the

sense that the social-ecological and technological processes within it are subject to the dynamics of larger systems that encompass the system in question (such as, for example, climatic systems, nation-wide laws, political structures, and movements, or world-market fluctuations in the prices of goods). As an open system, it can further not be understood without reference to its being made up of smaller open systems, such as households, gardens, or individual organisms that interact with one another (see Graeber 2001, 52-54; Redman et al. 2004, 163). Changes in any of the larger or smaller systems impact parts of the system at hand and thus influence – and become visible in – situations in which resources, actors and entities, identities, relationships, or groups are enacted, such as the situations analysed in this study.

However, as all relevant factors are impossible to describe and the system as a whole remains an abstract idea, it is in the analysis of concrete situations – and how different people act in and describe such situations – that situationally relevant factors and elements of the system can be grasped and influences of larger processes of change can be described in relation to these factors and elements (Latour 2005, 2010; Law and Mol 2008). Two approaches in anthropology seem to be particularly well-suited for conceptualising and describing such situational dynamics within complex and open systems involving human as well as other-than-human entities, and social, ecological, and technological processes. The first is known as 'actor-network theory' or ANT (Callon 1986a; Latour 2005, 2010; Law 1992), while the second approach describes systems as 'meshworks' (Ingold 2011).

Interaction, Perception, and Articulation in Meshworks and Networks

ANT is primarily interested in how technologies or institutions influence the ways in which people interact and how these interactions lead to specific outcomes. Latour, the most famous proponent of ANT, argues that in conventional sociology, social relations tend to be seen as pre-existing and to have an impact on other spheres of society, for example on economic or linguistic processes. However, ANT posits that there is no such thing as 'society' or 'social structure' that is independent of – or external to – a specific situation or process and could thus act as a 'social context.' According to Latour, humans and other-than-human entities – on the contrary – are brought together as social actors by, for example, economic or technological processes, while they and the relations between them at the same time constitute these processes and produce their outcomes. The 'social' is thus not limited to some particularly human domain separated from ecological, linguistic, technological, or economic processes, but consists of all relations that exist – or come into being – between humans, as well as between other beings, things, and substances in specific situations (Callon 1986b, 28-33; Latour 2005, 1-9, 12-13, 21-25; Law 1992, 381-383).

In Latour's view, when analysing any kind of social interaction in this way, no feasible divide between the world of humans – or culture – and the world of other beings and things – or nature – can be drawn. Every action, process, or social setting involves both human and other-than-human entities that play a part in its constitution and outcome. Any real-life situation, in which an action or event – such as cultivating rice – takes place, involves a myriad of different entities that come together and define the specific situation. Each of these entities in turn consists of a myriad of smaller elements. The way a real-life situation unfolds is thus determined by the interaction of many different beings and things that all have agency, in the sense that they influence one another and thereby lead to a certain effect or outcome. Considering this complexity of real-life events, each such event or situation can best be conceptualised as unfolding in a network of different beings and things that act on one another by virtue of their properties (Latour 2005, 14-16, 46-59; Law 1992, 381-384). Each entity within such a network can be imagined as a node in said network. However, any network is an open system in the sense that it is always part of a larger network, in which it can be imagined as one node, while each of the nodes within it is also comprised of a smaller network (Latour 19.02.2010, 5-7; Law 1992, 384-385). When the properties of one or several nodes within a network change, this might thus change the relations between the nodes or even bring (some of) them together in a new network, dissolving old and creating new relations between them. In this regard, ANT resembles other complex or open systems approaches (see Graeber 2001, 52-53).

What distinguishes ANT, is the symmetry principle, according to which humans should not *a priori* be ascribed a privileged role in the outcome of a situation. Rather, investigators should start from the assumption that all beings and things within a network can potentially have equal influence on the situation. They are to initially assume a symmetry between all components of a given network, whether these are a piece of wood, a squirrel, or a human being (Callon 1986a; Latour 2008, 123-128; Law 1992, 381-383). All of them can have agency in a situation and thus be influential. This does not mean that ANT considers humans as no different from a piece of wood, but simply that it should not be automatically assumed that humans are the most important factors in a situation or an outcome and that social scientists should not limit their analysis only to certain kinds of actors from the start (Callon 1986a; Law 1992, 381-383). Indeed, Latour distinguishes 'actors' from 'actants,' stating that the latter are any elements that have an effect within a network, while the former not only have an effect, but are conscious and reflexive and have their own theories and understandings of a situation (Latour 2008, 122-129, 2005, 52-58, 76). Any (human) actor involved in a specific network thus has his or her own explanations and ideas as to which actors and actants are contributing to a situation, how they interact, and how and which kinds of agency they exercise. These explanations and perceptions have to be included in the sociological analysis of networks and

can be seen as being informed by – and thus differ according to – the respective positions of the actors that hold or utter them within the network (2005, 4, 9, 23-25).

While ANT is interested in studying processes and institutions as bringing together and consisting of changing networks of actors and actants that produce specific outcomes, Ingold (2000, 2011) primarily focuses on how to best conceptualise how humans interact with, perceive, and make sense of their environment through making a living within it and maintains that all living beings and all substances and materials have to be understood as intimately connected. To paraphrase Ingold, an actor-network description is reminiscent more of a mechanical blueprint for a machine than of the interweaving and interpenetrating nature of organisms and materials within the real world. According to him, the key flaw of any network-based approach is that beings and things are pictured as separate from the relations between them. In a network, different entities exist isolated from their real-life context as separate dots that are then reconnected by the scientist who establishes relationships between them (Ingold 2011, 70; Knappett 2011, 45-47).

Ingold argues that materials and substances in the real world do not exist as distinct and discrete objects but are engaged in processes of enmeshing and entangling with one another, which is the very reason they exist and we perceive them as we do (Ingold 2011, 91). Paddy plants and the soil in which they are planted, for example, are not distinct objects in a relationship. Rather, they are enmeshed, since the plants grow roots that are both part of the plants and part of the soil. While plants take in water and nutrients from the soil through their roots, water is part of the substance of the plants themselves as well as of the soil. Rather than having a relationship with the 'object' water, the soil differs in texture, consistency, and weight according to its **humidity**. Furthermore, the soil itself is an enmeshment of different substances, such as plant materials, microorganisms, or sand from eroded stones, that over time have become transformed into soil components. In other words, beings and things '*are* their relations,' as they exist by being enmeshed with one another in a meshwork (Ingold 2011, 70, original italics).

Rather than being comprised of networks 'composed mainly of voids' (Latour 2010, 8), the material world in Ingold's view can thus be conceptualised as consisting of a meshwork of media, substances, and surfaces (Ingold 2011, 22; Gibson 1979, referenced in Ingold 2011, 22). Media, such as air or water, make perception and movement possible for organisms. Substances, like soil or wood, on the other hand, are usually more solid and – while we cannot move or see through them – allow us to stand on them or use them for certain purposes. Substances are separated from and connected with media through surfaces that have a certain shape and texture and resist disintegration to a certain degree. Regarding bodily perception, it is mainly these surfaces that we see (as they reflect light) and interact with, for example by touching them (Ingold 2011, 22; Gibson 1979, referenced in Ingold 2011, 22).

This conceptualisation goes along with a different understanding of agency. While in ANT, agency is effect-oriented or, as Ingold (2011, 90) puts it, 'what makes things happen,' for Ingold, action is the attentiveness of movements, or the coordination of 'bodily movement and perception' carried out 'along the lines of the meshwork' (ibid., 92, 94). Non-living entities, such as stones, or 'material media,' such as water or air, are thus not agents but are experienced by living beings in terms of their properties or forces, while agency is limited to living beings capable of learning and developing skills to varying degrees (ibid., 93-94).[24]

These two approaches thus represent very different perspectives on situational interaction in complex systems. However, rather than dismissing one in favour of the other, I intend to juxtapose them, as Knappett (2011) has proposed, to enrich the analysis and description of the enactment of rice and other actors and entities in this study. This is possible, since the two approaches represent different areas and scales of investigation as well as different and complementary perspectives (Knappett 2011, 45-53). ANT tries to explain complex processes as the outcome of the interaction between different actors and actants, focusing on how different human and other-than-human entities come to exercise agency within changing constellations. It uses an abstract and simplified approach, determining and depicting separate actors to illustrate how they interact and which effects they have on one another that lead to a certain outcome. Ingold, on the other hand, tries to evade abstraction as much as possible, focusing on how individual organisms develop, act in, and perceive their environment through their enmeshment with it and how materials are in constant flow and movement (see Knappett 2011, 45-47). While Ingold's approach is reflective of how organisms, things, and substances behave and are perceived in the world from a larger-than-molecular perspective, it is difficult, if not impossible, to describe a 'meshwork' by using language. For instance, as soon as I speak of rice, water, or soil, they are turned into distinct objects that no longer reflect the flow and intermixing of substances in the world. While I thus experience rice, water, and soil as surfaces, media, and substances in a meshwork in which I myself am enmeshed as well, my verbal rendering turns them into bounded and separate entities in an abstract network, as I describe the way they 'interact.' Saying that a paddy sapling with its roots is pulled out of the nursery flooded with water and transplanted into the soil of the flooded main field establishes a network-like assemblage of separate objects (sapling, roots, nursery, water, soil, and main field), the connections between which are established by linking them in a sentence. I can, however, describe my sensations of how I perceive rice, water, and soil in a way that reflects them and myself as part of a meshwork, for example by describing my impressions from working in the fields and pulling out and transplanting paddy saplings. I could write that the water was of a muddy brown and slightly

[24] Agency thus also must be distinguished from intelligence, which Ingold understands as 'a cognitive capacity to work things out in advance…' (Ingold 2011, 93).

grey colour, such that I could not clearly determine where the water ended and the soil started. This was ever more so, as my feet and legs sunk into the soft, sticky, and warm mud. It felt almost like walking through insufficiently cooled pudding. Each sapling was a bundle of long and thin, dark green leaves, the surfaces of which felt slightly itchy in my hands. The dark water that splashed onto my arms and legs dried in the sun and became like plaster on the skin. When pulling the saplings out of the soil I could sense how their small but strong, light-brown roots tore holes into the clayey mass of the soil, as the wet clay, into which they had grown, was so sticky and they had embraced it so tightly that large quantities of it were still hanging between the knots of their roots, sticking onto them, or dripping from their ends.

Even such a description is still a network-like assemblage of different objects enriched only by adjectives referring to perceptible differences in surfaces, media, and substances that I have experienced. The difference is that the first account is a generalised and abstract blueprint of an interaction, while the second one is a subjective narration based on my first-hand, bodily experience at a specific time and place. Even if I added a date and time to the first account, it would still be an assemblage of **facts** I describe, while the second account rather describes beings and things as they occur to me in the way they are enmeshed with one another and become enmeshed with me as well (see Ingold 2011, 154). In its ideal form, a meshwork account would be akin to the unmediated sensual perception and skilled engagement of the narrator with his or her surroundings. Since all language is abstraction, however, this ideal cannot be reached in narration or description. Perceptions and practical knowledge must be simplified in order to be translated into language. Nevertheless, understanding my research as taking place in a meshwork means recognising that all of the observational data I present are abstractions from my subjective perceptions of specific situations in which I was enmeshed as a subject.

When describing networks, on the other hand, I do most likely not feature in what I describe. Instead, I present an account of the ways in which different actors and actants interact in relation to their relevant properties. I further remove everything from the description that does not fit with these facts, including my sensual perceptions, since my aim is to explain something as the outcome of these specific interactions between specific objects. In its ideal version, the network account is thus the explanation for how a certain outcome is brought about through the interaction of the relevant factors, presented as separate objects. This, of course, is also a subjective exercise, since my selection and description of ‘actors’ and ‘actants’ will always be based on my perception of a situation, influenced by my analytical biases, and limited by my lack of knowledge of many of the processes that influence a situation.

It thus seems reasonable to assume that a network is a more abstract, simplified, and reorganised version of a meshwork. This abstraction is not surprising, given that the research

interests of ANT are very different from those of Ingold. While Ingold is interested in how humans perceive and interact with their environment, ANT aims at tracing complex connections and interrelations that can spread across vast distances and to uncover concrete actors and actants that would otherwise be obscured by abstract concepts such as 'power,' 'globalisation,' 'society,' or 'economy' (Latour 2008, 7-9; Law 1992, 380). This kind of analysis and description naturally requires a high degree of abstraction to make sense. Indeed, Knappett shows that a meshwork view is productive on a 'micro-scale,' on which concrete interactions and engagement with materials are brought into focus, while a network perspective is productive when conducting analysis on a more 'zoomed-out scale,' which allows for the recognition of relations and features that could not be recognised from an embodied, on-the-ground perspective. He further argues that a meshwork perspective can illustrate how 'creativity and invention' are embedded in people's situated and embodied engagement with materials, while a network view allows for conceptualising how such creative engagement and inventions become 'innovations' through being converted into more abstract, formalised and generalised knowledge, such as simplified rules or blueprints, that can be shared and applied elsewhere (Knappett 2011, 45-53). Meshworks and networks thus represent different ideal types of articulating knowledge and experiences, on a continuum from storied accounts to factual accounts and perception-based and embodied knowledge to objectified and disembodied knowledge. They further represent different ways of enacting (i.e. engaging with and perceiving) beings, things, and substances (see Knappett 2011, 47-53, 60; Ingold 2011, 156-175).

As will be explained in the following section, I argue in this book that the Green Revolution measures and other governmental initiatives have lead my interlocutors to engage in ontologically distinct modes of 'enacting' rice and other actors and entities (or 'actants') involved in the rice economy that can best be described as a shift from a 'meshwork' to a 'network'-way of engaging with, perceiving, and talking about beings and things. I further argue that the new constellations of actors and entities that have come into being through these interventions can also analytically best be described as 'networks,' while the relations that have remained socially and ecologically embedded in Kaveripuram's rice economy are better described as 'meshworks,' or as parts of what I will call the 'paddy meshwork.' To outline these arguments better, it is first necessary to describe what I refer to as the 'disembedding' of the rice economy. Before I do so in the next section, however, I will briefly clarify some of the terminology I use in this study.

Social, Ecological, and Technological Actors, Entities, and Substances

Throughout this book, I refer to social, ecological, and technological entities and processes. My understanding of the social and ecological here differs from conventional understandings

as well as from Latour's conception of 'social.' Furthermore, while Redman et al. categorise technology as part of the 'social' (2004, 164), I treat the 'technological' as a distinct category, opposing it to some extent to the 'ecological' for descriptive and analytical purposes and because some of my interlocutors made a similar distinction between 'natural' or 'traditional' and 'artificial' substances, processes, beings, and things (see Chapter 6).

I understand the social here as including all those beings, things, and substances that my interlocutors themselves designated as actors and with whom they engaged in lasting relationships of various kinds.[25] Included in this category, other than living human beings, are thus deities, ancestors, and deceased relatives. The category further includes certain animals that were kept, worshipped, or fed on different occasions, certain plants that were cultivated, worshipped, or (wholly or partially) used in rituals, and entities such as the sun, the river Kaveri, the nine planets, or the agricultural soil, who were also worshipped as deities and described by my interlocutors as having an influence on worldly affairs. The relationships entertained with these actors may involve reciprocity (such as with deities granting good yields in return for offerings) or trade (such as between sellers and buyers of cultivated paddy). They may be hierarchical (such as between larger landowners and their attached labourers or between husband and wife) or egalitarian (such as between co-workers in agriculture). They may also become antagonistic, violent, or destructive, such as in case of conflict between different people or social groups or when animals are sacrificed, for example for the Goddess Kaliyamman. Important is that my interlocutors recognised the parties involved as acting entities, interacted with them according to certain **social protocols**, that is norms and standards of behaviour, or reported that such social protocols were observed in relation to them. In this thesis I thus mostly speak of 'actors' to designate human persons or any other beings or entities that my interlocutors described as acting agents and with whom they engaged in decidedly 'social' interaction.

The ecological, on the other hand, designates all the substances, media, and surfaces (Ingold 2011, 22; Gibson 1979) of which actors and entities are constituted and through which they are enmeshed with one another, as well as the bio-physical and chemical components of their interaction. It also refers to those beings, entities, and substances that my interlocutors did not single out as social actors with whom they engage in relationships. Blood or milk, for example, are such substances that – while recognised to have important properties – were not actually socially engaged with. This category also involves entities that featured

[25] Throughout this thesis, I use the past tense for describing events that I have witnessed in 'the field.' This is not to deny that similar dynamics to those I describe can be at play right now. It is, however, intended to remind both myself and the readers that what I describe here are mostly not representative 'facts' independent of time and space, but particular and contingent occurrences (see Ingold 2011, 153-5) that I have observed and in which I have taken part. It is my interpretations of these past occurences, that I weave together with information and statements from my interlocutors, also uttered in specific contexts, into my own, subjective narrative (see Clifford/Marcus 1986).

prominently in everyday or ritual activities but were not socially engaged with or worshipped as such, like betel leaves or vegetables. I include in this category both beings, entities, and substances explicitly recognised or identified by my interlocutors as well as such that were not explicitly mentioned by them but play a role in my understanding of a situation.

The technological involves human-made machines and items or tools, such as tractors, ropes, or weeding machines, with which my interlocutors did not engage socially, either. It also involves entities and substances that my interlocutors designated as artificial or unnatural. Naturally, these distinctions are somewhat pragmatic, and the three categories are not mutually exclusive. Depending on the context, certain kinds of rice could be described as natural and / or artificial by my interlocutors and me, while my interlocutors also recognised – and engaged with – paddy saplings as social beings in some contexts and as ecological beings in others. Indeed, for many actors, entities, or processes no clear or universally valid distinctions between these categories can be drawn. For example, the soil as 'Mother Earth' (*taai buumi*) was worshipped in certain rituals. Fields where cultivation took place could not be entered while wearing shoes out of respect for Mother Earth. Soils in general, however, were not treated as social entities apart from these specific contexts. The same can be said for many substances, beings and items, such as the river Kaveri, water in general, agricultural tools, tractors, small insects, or different food items that were acknowledged and treated as social actors in certain situations – for example in rituals of worship – but not in others (see Nagarajan 2011, 172-173).

Arguments of the Study

The Social and Ecological Disembedding of the Rice Economy: From Cyclical to Linear Rice Economy

According to Giddens, a distinctive feature of modernity is the 'disembedding of social systems,' that is '... the "lifting out" of social relations from local contexts of interaction and their restructuring across indefinite spans of time-space' (1990, 21). An important way in which disembedding takes place, according to Giddens, is the involvement of people and other entities into wide-reaching 'expert systems,' that is '... systems of technical accomplishment or professional expertise that organise large areas of the material and social environments in which we live today' (1990, 27). The first major argument of this study is that, due to the government reforms and programmes discussed previously, the rice economy – that is the cultivation, distribution, and consumption of paddy and rice – in the research area has become increasingly disembedded.

Before and during the initial years of the Green Revolution, cultivators in and around Kaveripuram reportedly used mainly organic manure from cow dung, fallen leaves and twigs,

or food and cloth waste to fertilise their fields. For protection against insects, applications made from neem and other plants were used. All of these substances were organic and locally available. Organic manure was applied before the *31ambia* or *kuruvai* cultivation seasons, but not before *taaḷaḍi* (see Chapter 2 for a description of cultivation seasons). The main source of manure was cow dung. This was available in sufficient quantity, since many households owned cows and the wealthier landowning households also owned oxen, which were used for ploughing the fields. Ploughing was undertaken by male agricultural labourers, who lead the field owners' oxen, which pulled the ploughs, through the fields. Paddy seeds were saved by the farmers, who kept some of the grains from each harvest as seed grains (*vidai nellu*). Paddy was sown, transplanted, harvested, winnowed, parboiled, and husked manually by agricultural labourers, tenants, or owner-cultivators. Weeding was also carried out manually by female agricultural labourers or the wives of tenants or owner-cultivators. Some of the harvested paddy was probably sold to traders from outside Kaveripuram since the time the British had connected Thanjavur to global rice markets. However, significant amounts of paddy were kept from each harvest for farmers' own consumption, as shares to be given to Kaveripuram's large temple and the Brihadishwara Temple in Thanjavur in return for being granted the right to cultivate the local temple lands, and as payments or customary shares for agricultural labourers and service castes. The paddy economy was thus a cyclical process, all labour, manure, seeds, and other resources coming from Kaveripuram and its surroundings, while village residents also mostly ate the rice they received from their own harvests or as payments or shares.

From the late 1960s onwards, however, the organisation of agriculture changed drastically. The new high-yielding rice varieties (HYVs) quickly replaced the formerly cultivated 'land races.' HYVs are closely associated with the use of mineral fertilisers, and the intensified cultivation associated with HYVs further makes the crop more susceptible to pests, insects, and other complications (Jirström 1996, 15-16, 64-65). Therefore, as stated previously, mineral fertilisers as well as chemical pesticides, insecticides, fungicides, and herbicides were promoted by the government and increasingly adopted by farmers. With the ever-increasing use of mineral fertilisers and other agro-chemical inputs, organic manure and other remedies gradually ran out of fashion. At the time of the research, cultivators almost exclusively relied on mineral fertilisers and a variety of other agro-chemical inputs. These substances are produced in factories and distributed by the government or private companies and thus originate from elsewhere in Tamil Nadu, other Indian states, or even from abroad. Village residents have to purchase them in private shops in the nearby towns or acquire them from the local, government-operated 'Farmers' Society.' Similarly, paddy seeds are usually no longer kept by farmers in the area, but regularly purchased anew at the local, government-run agricultural extension office or at private shops in the nearby towns. At the time of the research,

most of the paddy varieties cultivated in the research village originated from the Tamil Nadu Rice Research Institute in Aduthurai, Tamil Nadu.

From the early 1980s onwards, tractors started being used and within a few years most cultivators were reportedly already using tractors for ploughing. Consequently, in the 1990s, farmers started selling their oxen and some of their cows. More recently, power tillers were introduced and became more popular than tractors. At the time of this research, there was not a single bull or ox left in Kaveripuram, while many of the richer families as well as virtually all Brahmin families had also given away their cows. Producing organic manure locally is thus no longer possible. Within the last decade, furthermore, harvesting machines caused manual harvesting to virtually disappear. Agricultural labourers thus gradually lost ploughing and manual harvesting as major sources of employment (compare Kapadia 1995, 208-210).

With the increasing monetisation of regional economic relations under colonial rule and after independence, paddy payments in Kaveripuram were increasingly replaced by cash payments, except for the salary for manual harvesting, which remains to be paid in paddy even today (compare Kapadia 1995, 214-215).[26] The Tamil Nadu Hindu Religious Charity and Endowment Department reportedly also changed the rents to be paid to the temples for cultivating temple land from paddy to money, so that the rice used for ritual and ceremonial purposes at Kaveripuram's large temple now has to be bought from shops, rather than being derived from the paddy shares from cultivated temple lands.

As illustrated previously, since the second World War, but increasingly so since the late 1960s, the government has purchased paddy from farmers to operate its Public Distribution System (PDS). In the 1980s, with the extension of PDS rice to rural areas, so-called ration rice started being distributed at subsidised rates in Kaveripuram's ration shop. After the liberalisation of the Indian economy in the 1990s, private merchants purchasing paddy and private shops selling rice for consumption appeared, too. As illustrated above, farmers now must purchase seeds and mineral fertilisers and other agro-chemical inputs and pay rents for harvesting machines. They have also found it more and more complicated to store, process, and consume paddy for their own consumption. Over the decade preceding the research, almost all cultivators thus gradually started selling their entire paddy harvest and purchasing rice for consumption in the private shops or the ration shop. Due to the loss of paddy wages for manual harvesting after the introduction of harvesting machines, agricultural labourers have also become dependent on procuring rice from shops or relying on ration rice.

[26] While manual harvesting had mostly been replaced by machine harvesting at the time of the research, manual labourers were still needed for harvesting the paddy growing in the corners and on the edges of the fields, since these could not be reached by the harvesting machines. This small amount of manual harvesting work that was still available was still remunerated in paddy, while virtually every other agricultural task was remunerated in money. See Chapters 4, 5 and 8.

As can be seen, a system of agriculture deeply rooted in social-ecological relations that have developed over centuries and that is based on cultivators' first-hand experiences and knowledge of the soils, seeds, manure, and other applications has been transformed into an industrialised system '... characterized by monocropping, mechanization, hybrids, the use of fertilizers and pesticides, and capital intensiveness...' (Scott 1998, 266) within a few decades. This industrialised way of cultivating, processing, distributing, and consuming rice is remote from the cyclical practice described previously. Previously most elements of the cultivation process were derived and reproduced locally, the distribution of rice was mostly organised and took place within and around Kaveripuram, for example in relation to caste and the performance of caste-specific duties and services, and the cultivated rice was consumed locally, too. This cyclical economy has been replaced by a linear movement, wherein paddy seeds are brought into Kaveripuram, fertilised and treated with inputs produced elsewhere, and leave Kaveripuram again as paddy grains, when the harvest is sold. The money gained from selling the paddy or from performing agricultural labour is then spent to purchase rice cultivated and processed elsewhere for consumption. Thus, the paddy now mostly passes through Kaveripuram and the elements involved in its cultivation as well as the rice for consumption have to be continuously procured from outside, too.

In Gidden's terms, the formerly local and embedded processes of rice cultivation, distribution, and consumption have thus been 'lifted out' of local interactions and relations and have instead become part of regional, national, or even international 'expert systems' (Giddens 1990, 27), within which all necessary agricultural inputs as well as the rice consumed by most village residents are produced and processed and across and through which they are distributed to the farmers and village residents. Farm-gate prices for different paddy varieties, prices to be paid for agricultural inputs and services, and the prices of rice for consumption are also determined in these disembedded systems and can usually not be influenced by village residents. The changes brought about by this major transition are mostly what I will be describing and discussing in the following chapters.

Alienation and Abstraction: From Embodied Qualities in Meshworks to Disembodied Properties in Networks

The second major argument of this study is that the disembedding I have described here has had effects on local social-ecological relations and on village residents' perceptions of rice and other actors, entities, and substances that can best be described by juxtaposing the 'meshwork' and 'network' approaches described previously. I accordingly use the terms network and meshwork to describe and highlight differences in the ways in which my interlocutors enacted – that is perceived, related with, or articulated – rice and other actors, entities, substances, or processes in different situations. I especially use these two

approaches to highlight differences in how my interlocutors described and explained the interaction and relations between themselves and other elements. In addition, I use these terms to highlight how the way rice was enacted was impacted by larger political-economic and social-ecological changes and how my interlocutors explained these changes.

Throughout its cultivation process, rice grows and develops in relation to the ecology as well as in relation to human care and management. Ecological, technological, and social processes change the rice's physical constitution. Even after the rice is harvested, it is still transformed by processing as well as storage and cooking, which leave physical traces in and on it. While rice is transformed as it moves from the field through distribution and processing as well as through people's bodies, people are also physically involved in rice cultivation, processing, distribution, and consumption to different degrees. It can thus be assumed that their first-hand experience of these processes is reflected in how my interlocutors talk about and explain the natures and roles of – and the relationships between – rice and the other actors, entities, and substances involved in these processes. Indeed, whenever my interlocutors' engagement with rice was based on direct bodily experience, this was reflected in their narratives about rice. They described different qualities of rice as they perceived them through their senses in various contexts of interaction with rice. Their narratives and explanations were thus related to, for example, their perceptions of the rice's enmeshment with the soil and fertilisers or with their own bodies. My interlocutors referred to different types of rice, for instance, by describing the effects that cooking had on the rice's texture or that ingesting the rice had on their perceived bodily strength, their stomach, or their digestion.[27] I call the qualities my interlocutors used to describe rice in this way 'embodied qualities,' as my interlocutors articulated them based on their physical, in-the-world interaction with – and perception of – rice (see Csordas 1994b, 7-12; Ingold 2011, 22-32). Such embodied qualities were also used by my interlocutors to describe other actors and entities involved in the enactment of rice, including people or agricultural soils. When my interlocutors talked about embodied qualities, for example of rice or of a person, they referred to these qualities as the result of the specific entity's physical constitution of – or modification by – materials and substances present in the local ecology. My interlocutors invoked, so to speak, a 'meshwork' perspective of how such qualities developed in beings and things. My interlocutors further related with and treated rice and other actors and entities as embodying certain qualities and as being the result of social-ecological processes – or the enmeshment of different substances – in many contexts, such as in rituals or during paddy cultivation, as I will show in Chapter 3.

[27] Indeed, perception involves more than obvious sensory organs like eyes or ears. Gibson's theory of the 'haptic system' finds application here. This system refers to the 'sensibility of the individual to the world adjacent to his body by the use of his body' and incorporates 'the whole body, most of its parts, and all of its surface' (Gibson 1966, 97-9 cited in Lyon/Barbalet 1994, 61).

When I refer to my interlocutors' speaking about 'embodied qualities,' I refer to this subjective, relational, and situationally embedded way of perceiving and describing the world. Such a 'meshwork' perspective, as I will show in later chapters, also entails a long-term and cyclical view of humans, rice, and other entities as continuously constituted by – and engaged in – revolving social-ecological processes of the growth, cultivation, end, and renewal of life through the development, transmission, and intake of qualities and substances. The existence of such a 'meshwork' view among Tamil village residents is not a new finding. In his seminal ethnographic study in a Tamil village, Daniel (1984) argues that his interlocutors perceive the world as constituted of qualitatively different substances or 'substance complexes' that exist in more or less disequilibrated states.[28] This includes the bodily substances, which are again comprised of various substances, of humans, of deities, and of animals, plants, and other entities and materials. According to Daniel, the boundaries of beings and entities are imagined and perceived as fluid in 'Tamil' conceptual thinking, their very essence or body substance being understood as continuously subjected to and altered by various substances they ingest or with which they otherwise come in touch and which can have equilibrating or disequilibrating effects on their body substance. Living beings, in this perspective, need to constantly strive towards restoring equilibrium to the substances inside their body to achieve and maintain 'health and well-being' (Daniel 1984: 2-6, 9).[29] Persons, according to Daniel, are thus not perceived as bounded individuals, but their body substance is imagined to be composed of – and susceptible to – many different substances and influences. A healthy child, for example, is not only the result of the compatibility of the male and female substances that mix during its conception, but also the outcome of the intermixing of many other factors and substances, such as, for example, whether the child receives 'the gaze of auspiciously positioned planets' during the time of birth. The village in which a person is born also affects their bodily substance, and thus also their health, their proclivity to encounter certain good or bad events, or their happiness (Daniel 1984: 9-10).[30]

I thus employ a meshwork perspective to describe and analyse my interlocutors' interactions with – and statements about – rice, when these prominently involved the

[28] The substances of which Daniel speaks are to be understood simultaneously as 'compound' or 'composite substances' or 'substance complexes,' since they themselves are understood as composed of several substances (Daniel 1984, 6).

[29] In most of their daily activities, Daniel argues, Tamil village residents are concerned with achieving 'limited' states of equilibrium, mainly through bringing together substances compatible with one another and avoiding the mixing of substances that are less compatible or incompatible with one another. Concerns with compatibility are expressed, for example, by eating only the foods deemed compatible with one's individual body under the present weather conditions, conducting a particular ritual only at a particular time of a specific day of the year, or marrying only a person with compatible qualities according to their horoscope (Daniel 1984: 8).

[30] The house in which they live further affects people's bodily substance and thus needs to be compatible with them. Action (*karmam*) itself is perceived to operate as a substance that mixes with a person's quality substance (*kuṇam*) and thereby alters the person's character or disposition and the balance of substances within the person's body (Daniel 1984: 8-11).

enactment of actors and entities as sharing substances, as being enmeshed with other entities or substances, or as embodying qualities that could be transmitted or could affect other entities. I argue that this 'meshwork' or 'embodied' perspective and way of relating mainly occur in situations that still contain elements of the circular and locally embedded rice economy that existed previously and are still embedded in local social-ecological relations.

In Chapter 3, I argue that rice and paddy within the social-ecological relations of Kaveripuram were valued and perceived by my interlocutors as embodying and transmitting desired qualities and auspicious blessings and as connecting my interlocutors with various important social actors, such as deities, ancestors, and important relatives. I argue that when my interlocutors talked about or discussed these embodied qualities, they referred to referred to them as physical or perceivable qualities and/or to these qualities' being the result of the enmeshment of different substances. Indeed, I illustrate that my interlocutors perceived and talked about the rice's embodied qualities as partly inherent in the rice and partly constituted through its enmeshment with the soil and the substances ingested by the latter as well as through its enmeshment with, for example, sunlight and water; but also as constituted through the influence of deities and planets. I further show that my interlocutors in and around Kaveripuram not only treated, used, and spoke about rice in this manner but also treated and perceived humans, deities, ancestors, animals, plants, and other actors and entities in ways that corresponded with a situated and embodied 'meshwork' view or with Daniel's (1984) depiction of Tamil village residents' understanding of beings and things as constituted of different substances with different qualities or characters. I also describe how through their interaction with rice in different situations – that is during cultivation, when consuming rice, when using rice as a ritual item, or when offering rice to others at ritual or festive occasions – my interlocutors enacted and experienced both the rice's and their own roles and embodied qualities, for instance in relation to gender roles, in certain ways (see Graeber 2001, 59). Drawing on several important studies that emphasise the significance of 'auspiciousness' in the lives of Hindu village residents in India (Carman/Apffel-Marglin 1985; Raheja 1988; Srinivas [1952] 2003; Tingey 1993), I show that my interlocutors enacted rice as developing and possessing desired and auspicious embodied qualities, such as the capacity for growth and multiplication or the capacity to nourish. They also used rice in rituals to embody qualities desired in women, men, and children but also in paddy saplings and households – such as healthy development, fertility, multiplication, usefulness, the capacity for care, or prosperity – and to transfer auspicious blessings from important actors, such as deities, ancestors, or human ritual participants, to those on behalf of whom the rituals were conducted .[31] The

[31] In his ethnographic study in a Tamil village, Pandian (2009) also shows how his interlocutors draw parallels between or equate the qualities of human beings and the qualities of their physical environment including plants and animals. While they, according to Pandian, understand working the land simultaneously as working the self, Pandian's interlocutors also draw parallels between good qualities

nutritious and desired qualities of rice further made offering rice meals one of the primary means of showing devotion, care, and respect to deities, ancestors, and deceased family members, and for honoring and respecting important relatives.

I call the complex of social-ecological relations and interactions described in this chapter the 'paddy meshwork,' as within it, paddy and rice as well as humans and other actors and entities were often perceived, treated, and described by my interlocutors as constituted of flowing substances and embodying different transmittable qualities (Daniel 1984; Marriott 1976a). I argue that the ongoing cultivation and transmission of embodied qualities in relation to the processes of growth, reproduction, and renewal in the paddy meshwork was enacted by my interlocutors as cyclical and as embodying the continuity and ongoing development and cultivation of life. As such, this 'meshwork' way of perceiving and relating can be seen as intimately related to the cyclical and organic way of conducting agriculture before the Green Revolution.

I use a network view, on the other hand, to describe and analyse interactions that involved the enactment of actors and actants mainly in terms of abstract functions or properties. Indeed, there were many situations, in which my interlocutors did not directly engage with rice but received their knowledge about it through descriptions by others or in which the actual enmeshment of rice was not of great importance to them or they did not know it through first-hand experience. In such contexts, my interlocutors treated and talked about the rice more as an object with fixed properties, like a certain price, weight, percentage of humidity, or brand name. Here, the criteria used to describe and evaluate the rice were not posed as relational, enmeshed, or based on experience, but as 'objective' facts or abstract categories that were objective precisely because they had been abstracted from real-life perception. I refer to these as 'disembodied properties,' since they were enacted as objective and authoritative properties precisely by being framed in terms not open to bodily perception, such as percentages, monetary value, brand names, or kilograms.[32] As I will show in this book, such abstract – or disembodied – properties were enacted by my interlocutors mainly in situations that were significantly influenced by actors or entities from outside Kaveripuram that were connected with – or a part of – larger governmental or private networks. These networks involved actors and actants spread over large distances, many of which were not known to or not directly perceivable for my interlocutors. I thus argue that the latter kind of enactment mainly occurred when disembedded relations and networks spread out over large distances were involved. In such situations, it was not the embodied qualities or enmeshment of these

of saplings and good qualities of human children or between the perceived character traits of certain animals, such as bulls or monkeys, and what they understand to be their own inherent dispositions (Pandian 2009: 11-12, 17-19, 139-140).

[32] The two kinds of perception and articulation I describe in this chapter are, of course, ideal types that are intertwined in real-life situations.

actors and entities that were relevant or enacted, but their specific functions, specific effects, specific interests, specific measurements, or specific prices within particular constellations of actors and entities. These situations of enactment usually had a definitive, short-term outcome and were not treated or perceived by my interlocutors as continuous, circular, or long-term processes. For such situations, I argue, it is thus useful to assume a 'network' perspective, since both the ways in which my interlocutors enacted the actors and actants involved and the ways in which I as a researcher can describe and analyse these interactions fit with a 'network' approach. This latter, 'disembodied' or 'network' way of relating and describing, I argue, is to a significant extent related to the modernisation reforms and the 'disembedding' of the rice economy as previously described. It is further intimately related to alienation, both from the rice and from the other actors and entities involved in these networks.

Marx argues that a fundamental feature of capitalism is alienation, meaning the separation of human beings from their own work, the products of their work, their fellow humans, and from the very capacities that make them human (Marx/Engels 1978, 133-134; Ollman 1971, 133-134, 137). For the purposes of this thesis, the first two of these features will be taken into consideration. According to Marx, human beings – in so far as they are workers – are separated from their own productive capacities, their labour, as the latter becomes a commodity they sell to capitalists. Selling their own labour, they no longer have command over how and for what they use it. Labour in capitalism is therefore 'external to the worker' and 'does not belong to his [sic] essential being' (Marx [1844] 1959, 72, cited in Ollman 1971, 137; Ollman 1971, 137-141). Workers are further separated from the products of their labour in that they cannot command over the things they produce, and the work they put into producing them is not recognisable as their own. They cannot use the products they make '... to keep alive or to engage in further productive activity' (Ollman 1971, 142-144). Since these products are distributed as commodities through market exchange, the consumers of the products in question also remain separated from – and do not know anything about – the producers or the conditions of production. Standing between producers and consumers who do not meet or know each other, it is then the commodities themselves with which consumers engage in social relations and to which they attribute agency. Most individuals in a capitalist society completely depend on the market for satisfying their basic needs, as they do not have command over resources to produce things for their own consumption. The things they need thus come to exercise control over them and make them dependent on market forces and relations and processes of production with which they have no direct relationships, and which are alien to them. At the same time, the workers who produce the commodities as well as the employers of these workers are equally dependent on these market forces, as the goods' they produce or own are sold through the market and they also need to purchase what they need for survival through the market from the money they receive for their labour or their goods.

Their fate thus depends on the demands of consumers alien to them and they experience these demands through the capacity of their own or their employer's products to generate more or less money (Ollman 1971, 145-147). According to Marx, as their relations of production and / or the market dynamics constituting their prices are unknown, the commodities themselves come to be perceived as 'the source of value and profit' and are attributed agency, while the relations that have produced them vanish from consideration. Marx calls this phenomenon 'commodity fetishism' (Taussig 2010, 27). In this 'capitalist' logic, actors and entities thus become what Marx calls 'abstractions.' Ollman describes the usage of the term 'abstraction' by Marx as follows:

> 'At its simplest, 'abstraction' refers to the type of purity that is achieved in emptiness. Its opposite is a set of meaningful particulars by which people know something to be one of a kind. Given that these particulars involve internal relations with other factors, any factor is recognised as one of kind to the degree that the social whole finds expression in it. It is because we do not grasp the ways in which the social whole is present in any factor (which is to say, the full range of its particular qualities in their internal relations) that this factor seems to be independent of the social whole, that it becomes an 'abstraction'. As an abstraction, what is unique about it (which – again – is the particular ways in which it is linked to others, conceived as part of what it is) is lost sight of behind its superficial similarities with other abstractions. And it is on the basis of these similarities, generalised as classes of one sort or another, that alienated men set out to understand their world. In this manner is intelligence misdirected into classification' (Ollman 1971, 134).

In other words, entities previously perceived as enmeshed are abstracted, because they are separated from their social-ecological relations of production and thus come to stand alone as separate, detached objects that exist independent of their relations. In Chapter 4, I illustrate several ways in which paddy as a commodity was alienated from its producers and turned into such an 'abstraction' through 'disembedding' during cultivation and, most importantly, when the paddy was purchased by private paddy merchants or by the government-run TNCSC. This alienation happened, I argue, because the processes of paddy cultivation and of the determination of the paddy's value (or price) were subjected to the influence of large-scale 'expert networks' disembedded from local relations and processes (Giddens 1990, 21-27). While Marx, Tsing (2013), and others see alienation as a prominent feature of capitalism, a convincing case can be made for it being a feature of modernity in more general terms. As I will demonstrate in Chapter 4, the selling of paddy to the government-operated TNCSC or the purchasing of inputs from government-operated institutions involved alienation just as transactions with private paddy merchants and shops did.[33]

[33] Similarly, as I will show in Chapters 5 and 6, consumers were alienated from the rice purchasable for consumption in private rice shops and produced by capitalist companies but also from the industrially produced and bureaucratically managed rice that was distributed for free in government ration shops.

In Chapter 4, I argue that, when it was sold, paddy was transformed from a social entity enmeshed in the paddy meshwork into an abstract commodity detached from the social-ecological relations of its production through what Tsing (2013) calls 'alienation assessment,' that is the abstraction of the paddy's quantity and quality and their conversion into monetary value. These abstract numbers were disconnected from embodied perception and thus constituted 'disembodied properties.' The paddy's embodied qualities were converted into abstract, 'symbolic tokens,'[34] such as its weight, quality grade, percentage of humidity, or monetary value, that were detached from the social-ecological relations of production. I therefore argue that farmers were alienated from the paddy they cultivated as they sold the paddy and the latter was transformed into an abstraction and removed from Kaveripuram. I further argue that the enactment of these disembodied properties happened in disembedded networks constituted by actors and actants connected across large distances. These were locally represented by various actors, such as government officials and private paddy brokers, as well as by various actants, such as government-issued machines for measuring the paddy's humidity or scales for weighing the paddy. I argue that these latter actors and actants were primarily relevant for farmers as connecting them with the buyer institutions and as factors in determining the paddy's quality, quantity, and monetary value, while their embodied qualities were not important and thus not emphasised by my interlocutors, either.

However, I also show that, due to the industrialised nature of contemporary agriculture, farmers were in need of networks of brokers to supply them with disembedded, industrially produced inputs and technological services at every stage of the cultivation process. They further had to negotiate the demands of rice consumers unknown to them, which influenced the prices for different paddy varieties, with the environmental conditions in the paddy meshwork, so as to minimise their losses and maximise their profits. I thus argue that farmers were in part already alienated from the paddy **during** its cultivation and before attempting to sell the harvest, as they constantly had to draw on outside networks and engage in negotiating costs with brokers, calculating expenses, and making cultivation choices in relation to these networks, many actors and actants in which they did not know directly. This led them to enact the paddy as an abstract entity even before the harvest.

Alienated Rice and Substances: Changes in the Perception of Rice, Body, and Environment

In Chapters 5 and 6, I describe my interlocutors' perceptions of the rice they purchased for consumption and of the rice they cultivated using mineral fertilisers and other purchased agro-

[34] According to Giddens, another way in which 'disembedding' takes place is through the creation of 'symbolic tokens,' such as modern money, that are '… media of interchange which can be 'passed around' without regard to the specific characteristics of individuals or groups that handle them at any particular juncture' (1990, 22).

chemical inputs. I show that, since the purchased rice and the agricultural inputs were produced and processed in disembedded networks, my interlocutors were alienated from them. I then illustrate in detail how this alienation affected my interlocutors' perceptions and evaluations of the rice they consumed, their own bodies, village society and ecology, and the institutions from outside Kaveripuram they encountered in their engagement with rice.

According to Giddens, a consequence of the disembedding of formerly embedded processes, like rice production, and the involvement of 'expert systems' in them, as described in Chapter 4, is that many people have at best a rudimentary understanding of the inner workings or the production processes of the technologies and goods they use or consume. Neither do most people have a firm grasp on the knowledge and expertise that underlie the design and production of such technologies or goods. They are thus required to trust and have faith in the 'authenticity of the expert knowledge' as well as in the good nature of the technologies and goods that they use and consume. Indeed, trust is vital for the functioning of such systems. This trust, first and foremost, is not trust in individual people, but in 'abstract capacities' (Giddens 1990, 27-36). The paddy's conversion into a commodity described in Chapter 4, for instance, was based on implicit trust in, for example, the correctness and proper functioning of the humidity measuring machine and the scales that were used to assess and weigh the paddy as well as in the 'expert' knowledge and procedures according to which these devices were constructed. Furthermore, it required farmers to trust in the validity and usefulness of the 'symbolic tokens' of money they received in exchange for their paddy (Giddens 1990, 22-26). Neither the technologies involved, nor the processes by which money is produced, circulated, and acquires, maintains, or changes its value and validity were thoroughly transparent or graspable for the actors involved in the process of purchasing paddy. The same was true for most village residents' knowledge and understanding of the structure and workings of the governmental and private institutions and networks involved in the rice economy. All these technologies, tokens, and institutions to varying degrees remained 'black boxes' for them (and for me as a researcher to a large extent, too). Latour (1987) has coined the concept of the 'black box' in Science and Technology Studies. According to Latour:[35]

> 'The word black box is used by cyberneticians whenever a piece of machinery or a set of commands is too complex. In its place they draw a little box about which they need to know nothing but its input and output. […] no matter how controversial their history, how complex their inner workings, how large the commercial or academic networks that hold them in place, only their input and output count' (Latour 1987, 2-3).

[35] This passage was cited by Yates-Doerr (2015, 56) who uses it to explain her concept of 'nutritional black-boxing' that is based on Latour (1987). The idea of the black boxing of paddy here is based on her use of Latour's concept black box.

As Latour explains here, a black box is a box drawn around processes that are too complex to be understood easily by those who make use of them. Once the black box has been drawn, there is no need to understand the complicated going-ons inside the box. It is simply accepted as something that influences or structures the nature and outcomes of the situation in question.

In Chapter 5, I discuss the consequences of the disembedding of rice production and processing and the resulting alienation of my interlocutors from the rice they consumed. I argue that the rice my interlocutors procured from private shops or the government ration shop constituted a black box (Latour 1987) and was 'disembodied' for most of them, since they did not have sufficient or reliable knowledge of how the rice was processed, which cultivar it was, or where and under which circumstances it was cultivated. Indeed, I argue that, contrary to the rice cultivated in the village, my interlocutors mainly used abstract and disembodied categories, such as prices or generic names, to refer to and distinguish different kinds of rice in the shops. Given that most people consumed mostly rice from their own village until about 10 years ago, their present reliance on alienated rice presented a significant change for them. I show that my interlocutors 'reembodied' the rice by speaking about it in terms of its embodied qualities perceivable during preparation and consumption and that most of them lauded the quality of the finer rice available in shops and benefitted from the free rice at the ration shop. However, I also argue that many of them felt a sense of unease regarding the alienated nature of the black-boxed rice they consumed. This unease both gave rise to and was further fuelled by rumours and theories regarding the production conditions of the shop and ration rice and the potential negative effects they might have on people's bodies. I describe and analyse my interlocutors' reactions to and narratives concerning the alienated nature of the disembodied rice with which they were confronted, arguing that these narratives and concerns both reflected a need to understand and explain the rice's constitution through imagining its enmeshment with various substances (that is imagining it through a 'meshwork' perspective) and fear and suspicion that resulted from not knowing this enmeshment first-hand.

Chapter 6 is concerned with my interlocutors' perceptions of the use of mineral fertilisers and other agro-chemical inputs, substances that were alien and black-boxed for most of them, in paddy cultivation. I describe and analyse how the presence of these substances featured in my interlocutors' perceptions of the constitution of the rice they cultivated and consumed, of their own bodily constitution, and of the health of society and ecology at large. I show that my interlocutors perceived the rice they consumed as devoid of nutritious essence and infested with poison, qualities for which they held the mineral fertilisers and other agro-chemicals responsible and which they saw as weakening their bodies and making them sick. My interlocutors named this perceived change in the constitution of their staple food and their bodies as the prime cause for the increasing prevalence of chronic, non-

communicable diseases, such as type 2-diabetes or hypertension. Drawing on Sujatha's (2002) work on Tamil village residents' perception of the relationship between food, bodily health, and environment, and on the meshwork view described in Chapter 3, I argue that my interlocutors' explanatory focus on these agro-chemical substances as causing chronic, non-communicable diseases has to be understood in relation to the social-ecological system of which they are a part and is further related to their increasing alienation from and loss of control over the process of paddy cultivation. I further briefly discuss the implications of these developments for my interlocutors' more general evaluations of the large modernisation process of which they were a part and for how they increasingly enacted millets and also whole-grain wheat flower as healthier and purer alternatives to what they considered to be poisonous and unhealthy rice.

From Caste to Class: Changes in the Enactment of Social Inequality in Rice Cultivation and Consumption

The last two ethnographic chapters of this thesis are concerned with changes in how my interlocutors enacted and experienced caste, class,[36] and gender distinctions in relation to paddy agriculture and rice consumption.

Socio-political and economic relations and changes in rural Tamil Nadu as well as in other parts of India have been under regular and intensive anthropological investigation from the 1950s onwards. Indeed, Thanjavur and other areas of Tamil Nadu have been the location for many important village studies and ethnographies since the 1950s (for instance Béteille [1965] 1996; Daniel 1984; Gough 1981; Kapadia 1995; Mines 2005; Moffatt 1979; Münster 2007).[37] One topic that has stood out in most of these accounts is social or 'institutionalised

[36] Depending on the context, I use the term 'class' in this book either to refer to 'a category of persons occupying a specific position in the system of production' (Béteille [1965] 1996, 4) or to mean a category of individuals facing similar 'conditions of existence,' similar levels of wealth and access to formal education and occupations, and similar socialisation and manners (Bourdieu 1984, 14, 23, 101, 113-24, 169-175).

[37] This study has been highly influenced by and has greatly benefitted from many of the village studies that have been carried out by anthropologists and sociologists in South India since shortly after Indian independence. The aforementioned studies – as well as other important village studies – are thus cited and drawn on consistently throughout this book. Village studies became popular among anthropologists in India in the 1950s. The format of these studies allowed for transferring established anthropological methods and conceptual frameworks developed in the investigation of relatively small and isolated groups of people to the investigation of the Indian 'civilisation.' Similar to the former groups of people, individual Indian villages could be approached as relatively bounded, small social units in which 'kinship,' 'rituals,' and 'social structure' could be observed on a micro-level suited to anthropological methods and thinking. From these (micro-level) observations, generalisations about the 'great civilisation' of India could then be made based on the existing anthropological toolkit and theories (Mathur 2000, 92, drawing on Cohn 1987 and Srinivas 1997). Highly influential in the growth and promotion of anthropological village studies was Marriott, who set out the task of investigating Indian villages to '... contribute to an understanding of the greater culture and society...' of India (Marriott 1955, 171, cited in Mathur 2000, 91). Marriott's 'Chicago School' of anthropologists produced some of the most important village-based anthropological studies conducted in India (for instance Daniel 1984;

inequality,' that is 'structured inequality between categories of individuals that are systematically created, reproduced, legitimated by sets of ideas, and relatively stable' (Hurst et al. 2017, 4).[38] Béteille's ([1965] 1996) seminal study of a village in the Kaveri Delta, for example, is concerned with changing patterns of social stratification, in particular with changing caste, class, and power relations between village residents. According to Béteille, the village '... may be viewed as a point at which social, economic, and political forces operating over a much wider field meet and intersect' and studying a village thus allows for the analysis of how changes in these forces affect and change the relations between particular individuals as well as between categories or groups of people ([1965] 1996, 2-3).

Similary, Gough (1981), in her study of two villages in Thanjavur District, analyses and compares changing class and caste relations within the villages and contextualises them within larger changes across Thanjavur District, Tamil Nadu State, and India. Gough sees the villages as part of a historically grown system of production and thus as embedded in economic and political relations and processes that extend way beyond the confines of individual villages and partially even beyond the Indian Nation State.[39] She posits that the contemporary conditions in the villages, as she describes them, are the result of pre-colonial as well as colonial and post-colonial changes in economic and political relations (Gough 1981, 407-416). In these two seminal studies, a village is first and foremost understood as an arena of caste, class, and power relations organised in relation to or even determined by a historically grown division of labour and mode of production centred on paddy agriculture. It is furthermore a central stage for observing the changes brought about by the colonial period and the ambitious modernisation agenda of independent India.

In her highly influential study of a village in the Thiruchirappalli District of Tamil Nadu, Kapadia (1995) introduces gender and critical feminist approaches into the analysis of rural life in the Kaveri Delta. She bases her study on the assumption that all description and analysis is necessarily partial and positional, since every human being both experiences and frames reality differently, and is furthermore embedded in relations of domination and resistance (Kapadia 1995: 5-7, drawing on Alcoff 1988, Hawkesworth 1989, and Scott 1988). She further posits, again based on critical feminist insights, that gender, caste, and class identities and roles are not somehow already there and simply expressed or acted upon by different persons,

Raheja 1988; Sax 2002 to name a few) and he influenced other conductors of important village studies, such as Moffatt (1979).

[38] In British accounts from the early colonial period, the Kaveri Delta is already mentioned as home to 'the most unequal possession of land in the southern region' of India (Menon 1979b, 16). Reports from 1800 until today mention single landlords or landlord lineages who own several thousand acres of agricultural land, sometimes distributed across different taluks, while the majority of agrarian households are landless or only own up to a few acres of agricultural land (Gough 1981, 36-55; Menon 1979b, 16).

[39] Gough (1981) retraces in detail how different people's current caste and class positions in the villages and towns of Thanjavur district have developed mainly in relation to the expansion of paddy agriculture before the colonial period and then to transformations that occurred during the colonial period.

but are actively constructed, negotiated, and reinterpreted in the interaction of different people through practices and discourses. However, different roles and identities also overlap, so that an individual's gender-related practices and experiences, for example, can be dissimilar from those of a person belonging to the same gender but a different caste or class. The same is true for the other two categories (Kapadia 1995, 6-8). Assuming that '*struggles over resources and labour are simultaneously struggles over socially constructed meanings, definitions, and identities*' (Hart 1991: 95, cited in Kapadia 1995: 7, Kapadia's emphasis), Kapadia approaches the village as a place in which to understand struggles over such 'cultural representations' within and between different castes, classes, and genders in day-to-day and ritual contexts. Doing so, she places special emphasis on the experiences and discourses of Pallar female agricultural labourers, Pallars being an important Dalit caste in Tamil Nadu, whose traditional occupation is agricultural labour (1995: 6-8; see Chapter 2). Kapadia thus also approaches the village as an arena for the analysis of caste, class, and gender relations, a major difference in her approach being, apart from the addition of gender, that she views these categories as constructed and negotiated by her interlocutors through thought, speech, and actions in particular contexts and situations. She thus pictures these categories and their meanings and implications as negotiated and strategically used as well as understood and articulated differently by different persons based on their respective socio-economic positions and their personal experiences, circumstances, and intentions (see e.g. Kapadia 1995, 166).

Similarly, Mines (2005) and Münster (2007) in their respective village studies show how socio-political, economic, and ritual hierarchies, ranks, and privileges and the corresponding caste, class, and gender identities are enacted and negotiated differently in different contexts and situations. Mines describes, for instance, how power, status, and rank are reaffirmed but also challenged and renegotiated in temple rituals, while Münster, among other things, demonstrates how village residents draw on different discourses when enacting caste and how caste status and identities can be enacted very differently depending on the context.

Finally, Pandian (2009), in his ethnography of a village in the Cumbum Valley of Tamil Nadu focuses on how colonial and post-colonial policies and developments have influenced the ways in which village residents belonging to one caste, the Piramalai Kallars, perceive – and try to change – themselves in the context of historically grown inequalities and historic and current discourses of savagery versus civilisation in relation to agriculture.[40] Pandian

[40] Pandian argues that the current, post-colonial struggle of the Kallars to develop themselves and their agricultural fields is rooted in a historically shaped discursive regime of self-improvement through agricultural work that is particular to the Primalai Kallar caste and fueled by ideas both from colonial and pre-colonial times about the civilisatory potential and moral virtues of agriculture in opposition to the alleged savagery of the warriors of the dry and less hospitable upland plains. He narrates how the whole caste had been branded a 'criminal tribe' by the British in 1918, which lead to a variety of repressive, reformative, and 'civilisatory' measures being forced upon them, an important part of the reformative measures being the attempt to 'civilize' the Kallars by turning them into full-fletched

shows that for his interlocutors, the experience of remaking the rough and dry landscape around them into fertile, orderly plots is directly related to and synonymous with overcoming what they perceive as their own savage, undisciplined, and criminal nature. This perception, he argues, is grounded in the continuous and violent reformation efforts carried out by colonial officials against the Piramalai Kallars as well as in the treatment of the Kallars by members of other castes, which have lead the Piramalai Kallars to understand themselves as savage by 'nature' and in need of moral betterment (Pandian 2009: 17-23, 106-111).[41]

All these studies demonstrate the continued importance of caste, gender, and class distinctions in village life. However, as can be seen, there has been a shift in analysis from approaching caste and class categories – and the related differences in entitlements, opportunities, and respect afforded to people – as objectively given to studying how these categories – now including gender – are socially constructed and negotiated (or enacted) in specific ways by different actors in different contexts and situations. I, too, purse this latter focus in Chapters 7 and 8, which look at the enactment and experience of caste, gender, and class as part of my interlocutors' engagement in the rice economy. Similar to what has been described in the aforementioned and many other detailed studies, caste, class, and gender as categories of institutional inequality influenced – and where enacted in – many social interactions in Kaveripuram. How a person was treated by others, how a person's behaviour was judged, whether they were likely to own or have access to land for cultivation, what profession and income they had, to which resources, social spaces, and gatherings they had access, and what kind of education they had, was – albeit less starkly than before – to some extent related to the caste (*jaadi* or *caadi*) to which they belonged (see Béteille [1965] 1996; Gough 1952; Harriss et al. 2010; Mines 2005; Münster 2007; see Chapter 2). All of the above variables further depended just as much or even more on the gender of a person, that is whether someone was considered a 'man' (*aambaḷa*) or 'woman' (*pombaḷa*). In addition, how much and which work a person was expected to perform in the household, how freely a person could move within and outside the village, which work a person could perform outside the household, and what salary was paid to a person also significantly depended on the person's gender (see Kapadia 1995; Mencher/Saradamoni 1982). Other than caste and gender categories, which my interlocutors explicitly used to categorise people and from which a person could not escape, 'class' categories were much more variable and vaguer. My

agriculturalists. However, he also shows that, even before colonial rule, Kallars had a reputation for being robbers and were regarded by many people as the antithesis of the moral order of the 'lowland cultivators,' who in today's Tamil Nadu are still deemed by many to be the embodiment of civilisation and morality (Pandian 2009, 2-11).

[41] For Pandian, the cultivation exercised by the Kallars is '… both an operation on the land and an operation on the self, as a struggle with the imagined 'nature' of the heart as well as with the material nature of the soil' (2009, 19).

interlocutors made distinctions according to the wealth and prosperity of a family.[42] They applied these across caste categories based on the material wealth of a household, given that there were poorer and wealthier families amongst every caste (see Chapter 2). On the other hand, they also distinguished between categories such as landowners and agricultural labourers, that is between classes in the sense of their role in the agricultural relations of production. These latter labels were also still to a large extent caste-related.[43]

In Chapter 2, I provide a brief introduction to the concept of caste and its relationship with class from an anthropological perspective. I further introduce Kaveripuram's major caste groups and describe recent changes in their roles and positions in the rice economy and the village as well as changes in their relations with one another. I show that ownership of the means of production in paddy agriculture was increasingly distributed across members of all castes and that Dalit agricultural labourers had significantly emancipated themselves over the last decades, many of them having left agricultural labour for government jobs or private employment, while others had acquired lands of their own. Furthermore, the young generation of village residents from all castes increasingly left agriculture and the village behind to seek higher education or employment in the cities and towns. This climate of increasing social mobility and the uncertain future of agriculture and village society significantly influenced the relations between different groups of village residents involved in rice cultivation, distribution, and consumption, as I will argue in Chapter 8.

Drawing on Bourdieu's concept of 'distinction' (1984), in Chapter 7, I discuss changes in the enactment of caste and class distinctions in rice consumption. I show that my interlocutors distinguished between castes that consumed parboiled rice and such that consumed raw rice. Members of these two groups were said to be physiologically different, because they engaged in different forms of work and physical activity and in non-vegetarian or vegetarian diets respectively. My interlocutors thus described the bodies of each group to be compatible with the embodied qualities of only one of these two different kinds of rice, again employing a meshwork or embodied quality perspective. I contrast this long-standing bodily caste distinction based on embodied qualities and anchored in the paddy meshwork with newly emergent class distinctions expressed through the consumption of different kinds of alienated rice available at private shops or at the ration shop. Given that this rice was available to everyone who could pay for it or produce their ration card, caste or land possession did not play a role in access to these kinds of rice. I argue that this availability of disembedded kinds

[42] The most common distinctions were the labels 'rich person' (*paṇakkaarar*) and 'poor' (*eezai*), or their equivalents 'those with wealth' (*vaacedi uḷḷavaaṅga*) and 'those without wealth' (*vaacedi illadavaaṅga*).
[43] The word '*mudalaaḷi*,' derived from the word *mudal* (capital), was used to refer to landowners, but most people, especially agricultural labourers, used the more neutral English term 'owner.' Agricultural labourers were called by a variety of designations, such as *veelaikkaarar* or *veelaikkaaraṉ* (worker), the English terms 'labour' or 'labours,' derogatory terms such as *kuuḷi aaḷ* (daily wage man), or as *veelaiyaaḷ* or *aaḷ* (workman; man or manpower, referring to both men and women).

of rice created a universal measure for socio-economic status both within and across caste groups, as families from different castes distinguished themselves – and were distinguished – from other families based on the price of the rice they could afford to consume daily and could offer to guests at important rituals and festive events. However, beyond the enactment and experience of social status through purchasing power, I argue that due to the vast difference in embodied qualities between ration rice and shop rice, the regular consumers of ration rice also physically experienced their relative poverty through the taste, smell, and texture of the rice they consumed as well as through the excessive manual cleaning required by and the long cooking duration of the ration rice. The regular consumers of shop rice, on the other hand, I argue, similarly experienced their relative wealth and material success through their perception of the embodied qualities of the rice they consumed.

Chapter 8 is dedicated to changes in how my interlocutors enacted and experienced caste, gender, and class distinctions through their bodily engagement and social interactions in paddy agriculture. I show that while my interlocutors experienced their respective caste and class positions through their activities and roles in paddy agriculture and could be distinguished on the basis of these, caste discrimination based on physical segregation and the engagement in disrespectful and commanding versus deferential and obedient behaviour had disappeared to some extent, as farmers and agricultural labourers of different castes engaged in more egalitarian and amicable behaviour towards one another in places related to paddy cultivation, such as the fields or the tea shop next to them. I relate these developments to changes in the distribution of the means of production and to the influence of government schemes and larger socio-economic and demographic developments influencing the state of agriculture in Kaveripuram. I also embed these findings in the relevant literature concerning adherence to or the questioning and challenging of caste norms in the context of work, but also in the village context (for example Parry 1999a; 1999b; Strümpell 2008; Deliège 1999; Gorringe 2005; Gough 1981; Kapadia 1995; Moffatt 1979; Münster 2007). I further show that my interlocutors enacted and experienced gender distinctions through differential bodily engagement in paddy agriculture and describe gender-based inequality in the remuneration of agricultural labour in paddy agriculture, comparing my description with Kapadia's (1995) accounts of the same phenomena. I show that, while agriculture had become moderately 'caste-free' (Béteille [1965] 1996, 5; see also Parry 1999a; 1999b; Strümpell 2008), the gender distinctions and inequalities I describe had not changed significantly when compared to Kapadia's (1995) observations from more than two decades earlier.

An the end of this book, in Chapter 9, I provide a summary of the ethnographic content and the study's arguments in relation to common threads running through this study, such as meshworks and networks, abstraction and alienation, bodily experience and perception, changes in my interlocutors' perception of the relationship between rice, their bodies, and their

environment, and changes in the enactment of social distinctions and inequality. I further discuss the implications of the dynamics presented here in relation to current issues and developments and provide a brief outlook.

Before delving into the ethnographic chapters, in the next chapter I will outline the research methodology and describe Kaveripuram and its surroundings in more detail, giving an overview of its location, population, and agricultural landscape and practices.

Chapter 2: The Research Site

In this chapter, I describe this study's methodology and briefly introduce and provide an overview of Kaveripuram and its population. I further provide a very brief explanation of the concept of 'caste,' as understood in anthropology, and an overview of caste in the Kaveri Delta based on ethnographic literature. I then introduce the four main caste groups in Kaveripuram and their changing relationship with paddy agriculture as well as their changing socio-political and economic roles and relations with one another in more detail. I further briefly describe the physical outline of Kaveripuram in relation to the settlement of different castes as well as to the production, distribution, and consumption of rice. Finally, I introduce the agricultural situation in Kaveripuram, illustrating the changing relationship between different land and soil types, different irrigation sources, and paddy and sugarcane cultivation. I further describe the different seasons and cultivation durations for paddy and sugarcane in and around Kaveripuram.

Research Methodology

I conducted the research with the help of three research assistants, Dr. D.T. Chakravarthy, S. Raja, and K. Muruganandam. Chakravarthy worked with me mainly in the initial period of the research and Muruganandam accompanied me in the subsequent stages of fieldwork. Throughout the research period, I was further fortunate to work continuously with Raja, with whom I also shared accommodation for most of the fieldwork. The research was mainly based on open and semi-structured interviews and participant observation, that is on generating qualitative data (see Bernard 2006, chs. 9 and 13; 1994; Häuser-Schäublin 2008; Schlehe 2008).

Participant observation was conducted throughout the duration of the research. I – either accompanied by one of my research assistants or on my own – observed and took part in different activities in paddy, sugarcane, and banana cultivation as well as in the various rituals of worship or of showing respect and gratitude that accompanied the different steps of paddy cultivation. I also accompanied my interlocutors during the selling, parboiling, and milling of paddy, as well as during the buying, preparing, and consuming of rice for and during everyday meals. I, furthermore, attended many different religious rituals and festive events, which involved paddy and rice and were conducted at different family homes or in various temples in and outside of Kaveripuram. Among these were life-stage rituals, such as weddings, death rituals, or ear-piercing and head-shaving ceremonies. They further included rituals and festivities conducted at certain times of the year, like the Hindu festival Diwali, the thanksgiving festival *poṅgal*, or the annual animal sacrifice for the Goddess Kaliyamman. I also attended ceremonies conducted by or on behalf of specific persons, families, lineages, or caste groups. Participant observation not only allowed for crucial insights into the

organisation and execution of these tasks, situations, and events, but also enabled me to note down questions about them, which I would later ask various people (see Bernard 1994, 140-142). For these purposes, I made extensive fieldnotes during and after participating in events and everyday situations, noting down my observations, impressions, and questions, while also documenting many situations through photos and videos.

My research assistants and I conducted semi-structured interviews with many different village residents, mostly with male and female agricultural labourers and with paddy and sugarcane farmers. We further interviewed other people involved in the rice economy, such as government officials, religious specialists, paddy traders and millers, fertiliser and rice shop owners, a harvesting machine operator, and others.

My research assistants and I also visited different rice-related institutions and conducted interviews with the actors working in these institutions. Among these were institutions of the Tamil Nadu Civil Supplies Corporation (TNCSC), the ration shop, and the local agricultural extension office, which – among other tasks – provides seeds and new agricultural knowledge to farmers and reports to the government on the local agricultural situation. Interviews were usually conducted with one or two and sometimes with more interlocutors present. While most of the more elaborate interviews were audio-recorded, I recorded several long as well as many shorter interviews and conversations in my notebook. My research assistants Dr. D.T. Chakravarthy, S. Raja, and K. Muruganandam helped me with the analysis of interviews and fieldnotes in the field. Furthermore, throughout the time I stayed in Germany in between research periods, they helped me with translating difficult words and phrases and discussed ideas with me on the phone. This book is thus the result of a collaborative effort that was significantly shaped by the hard work, expertise, ideas, and suggestions of Chakravarthy, Raja, and Muruganandam. The main body of this book is based on the non-representative, qualitative data generated and analysed in the ways I have outlined here.

In addition to these qualitative inquiries, Muruganandam, Raja, and I developed a household survey questionnaire to gain a better understanding of the distribution of land holdings, access to education, jobs and professions, and migration patterns across different families and caste groups in Kaveripuram. The survey, which was carried out between October and December 2015, covered a random sample of 114 households across all settlement areas of Kaveripuram (see Bernard 2006, ch. 10; Pauli 2008; Sökefeld 2008 and Weller 1998 for descriptions and discussions of ethnographic census questionnaires, structured interviews, and structured interview questionnaires).

Having taken up my post as a PHD researcher in the collaborative research centre (SFB) 1070 ‘ResourceCultures’ at Tübingen University in October 2013, I conducted my first visit to Tamil Nadu between January and March 2014. Since the research was carried out in

collaboration with the Department of Folklore and Culture Studies at Madurai Kamaraj University (MKU), I mostly stayed at the MKU main campus in Madurai to practice Tamil with my Tamil instructor S. Raja. During this time, my research assistant and translator Dr. D.T. Chakravarthy and I visited Thanjavur district three times to organise the main research and make first, exploratory inquiries. On the second day of our first visit to the Kaveri Delta, as we drove through a village, we saw a few agricultural labourers packing up paddy saplings in bunches in a paddy field on the side of the road. We stopped to make inquiries and learned that the field belonged to the panchayat president[44] of Kaveripuram. We were fortunate to meet the president, who received us very warmly and invited us to witness his first transplantation of paddy saplings in the new year, which took place on the next day. Subsequently, we quickly got to know people from various groups within Kaveripuram and, with generous support from the panchayat president, began to conduct research there.

Chakravarthy and I began our main fieldwork in Kaveripuram in early June 2014. My initial plan was to carry out research in and around Kaveripuram for a whole year – until mid-2015 – to experience a full agricultural cycle and witness all agricultural operations, rituals, seasons, and ecological conditions. I further intended to revisit Kaveripuram in early 2016 for one or two months to talk my provisional 'findings' through with my interlocutors and my assistants, fill in knowledge gaps, and gather follow-up information. Eventually, I did carry out research in and around Kaveripuram for about twelve months in total but conducted the research in different phases, due to several developments I had not factored into my initial research design.

I had originally intended to work with Chakravarthy, who is a brilliant research assistant and translator, throughout the research. Unfortunately, due to unforeseeable circumstances, we had to stop working together after the summer of 2014. Not being able to find another translator, I asked my Tamil instructor S. Raja to be my research assistant, who from then on worked with me through most of the research. Since he does not speak much English, I had to focus more intensively on learning Tamil than I had intended. The first half of the research was thus more difficult, since I was barely able to understand even the simplest statements made by my interlocutors and Raja had to break down almost everything they told us into bits of Tamil that I could follow. However, these unexpected difficulties eventually became advantageous. Raja proved to be an excellent research assistant. Furthermore, I eventually learned to speak fluent Tamil and, in the process, gained a deeper and more immediate rapport with my interlocutors. I am deeply grateful for how warmly Chakravarthy, Raja, and I were received and invited by almost everyone we met during this time and how patiently and

[44] A panchayat is a village-level, democratically elected executive body, some of the main tasks of which are the implementation of government-sponsored development projects in the village it represents as well as the maintenance and development of the village's infrastructure (see Münster 2007, 79, 85).

supportively my interlocutors responded to my attempts at asking questions and engaging in conversations.

Nevertheless, due to my lack of Tamil skills, my resulting feeling of inadequacy when communicating with my interlocutors, and my inability to cope with the large amount of impressions and input I received in Kaveripuram, I felt very overwhelmed and highly stressed. In consultation with my supervisor, I thus decided to cut my stay short and leave India by the end of January 2015 with the intention of returning for a more focused, second research period.

In late 2014, I began conducting longer and more complex interviews in Tamil with Raja's help. I also had the opportunity to work with K. Muruganandam, who, being a wonderful research assistant and translator, provided me with invaluable assistance. While conducting many interviews with Raja's help in Tamil, I relied on Muruganandam's help to interview people who used more specialised and official vocabulary, such as government officials or temple priests, and to conduct more complex and in-depth interviews with farmers and agricultural labourers. I eventually realised that my Tamil had become much better and I gradually started conducting longer and more complex interviews on my own, too. By the end of January 2015, I left Kaveripuram feeling more confident.

After having been fortunate enough to spent August and September 2015 at the Jawaharlal Nehru University (JNU) in Delhi, coding data and discussing my research with esteemed professors and fellow students,[45] I returned to Tamil Nadu for the second research period from October until December 2015. Having benefitted greatly from my time in Germany and at JNU, I was able to conduct this second period with much more focus and confidence. Many of the interviews referenced in this book stem from this second period, during which I felt yet more comfortable conducting interviews in Tamil and Raja, Muruganandam, and I had become a very productive team. During November and December 2015, we visited many government and private institutions, such as rice mills, rice shops, TNCSC institutions, the local agricultural extension office, and seed and fertiliser shops, and interviewed various actors relevant for the paddy economy other than farmers and agricultural labourers in and around Kaveripuram. We were almost always received in a very friendly and supportive manner and I am deeply grateful to our interlocutors in these varied institutions. Shortly before Christmas 2015, I left India again.

Despite my advances in speaking and understanding Tamil, during the coding and analysis of the data, I identified more than 600 words or phrases in interview transcripts and fieldnotes that I did not understand and was not able to find in the dictionary, either. In September and October 2016, I was therefore fortunate to return to Tamil Nadu again for three

[45] I am very grateful to the 'Literary Cultures of the Global South' teams at Tübingen University and at JNU, who enabled me to visit JNU for two months, and to the German Academic Exchange Service (DAAD), who generously financed my stay at JNU.

weeks to go through interview transcripts and notes with Muruganandam and Raja and discuss my interlocutors' statements with them in depth. That time, I only visited Kaveripuram for a single day during which Muruganandam and I met as many friends and acquaintances as possible, cought up on recent events, and conducted one interview with a new interlocutor.

Finally, in March and April 2017, I was able to return to India again for five weeks, about two of which I spent in and around Kaveripuram. During this time, Muruganandam and I conducted follow-up interviews and discussions with many of our main interlocutors as well as with some new acquaintances.

Kaveripuram: The Village

Kaveripuram was situated in the wet rice cultivating region of the 'old' Kaveri Delta (see Gough 1981, 4-5) close to the banks of Kaveri River. It was located to the north of Kaveri River and had an estimated population of about 1500[46] people, with men slightly outnumbering women. My interlocutors were generally Hindus, some of them being atheists or agnostics; and some had converted to Christianity. As Kaveripuram was situated in the river-irrigated Kaveri Delta, it offered excellent conditions for intensive wet-rice and sugarcane agriculture and was surrounded by agricultural lands of different kinds on all sides. The introduction of marketing and irrigation facilities for sugarcane since the 1980s had led to a rapid increase in the area under sugarcane cultivation. Due to its profitability, sugarcane had even slightly exceeded paddy as the most cultivated crop. Sugarcane was cultivated on about 45% of the area under cultivation associated with Kaveripuram, while paddy followed closely with about 40%. The remaining cultivable land was mainly used for growing coconut trees, vegetables like brinjals (aubergines) and chillies, and bananas. In addition, a significant number of farmers had converted their elevated agricultural lands into brick kilns, of which there were more than 20 in the area.

In the region, paddy was mostly cultivated at some distance from the riverbed, the elevated banks and lands situated in immediate proximity to the river being used more for sugarcane cultivation or for cultivating trees, vegetables, pulses, flowers, or vines. Cultivators planted, for example, teak, coconut, and mango trees, black gram, sesame, chillies, maize, eucalyptus and bamboo trees, bananas, cucumbers, aubergines, okra, and rose and jasmine flowers. In some areas, farmers also grew *poṅgal karumbu*, a darker coloured variety of sugarcane that is exclusively used during the thanksgiving festival *poṅgal* (see Chapter 3). Farther away from the river, betel vines were also cultivated. On elevated lands, paddy could be seen as a rotation crop for sugarcane.

[46] Any numbers provided in this chapter are generously rounded to preserve the anonymity of the village and its residents.

Many residents of Kaveripuram regularly visited other villages and towns for shopping groceries and buying provisions. Vegetable and spice vendors, fish vendors, butcher shops, mechanics who attended to motorbikes, doctors, liquor stores, and other shops and services were available in nearby villages or in the closest towns. The towns, as well as some villages, were also host to small restaurants selling rice meals (*caappaaḍu*), rice pancakes (*doocai*) and rice cakes (*iḍli*) made from rice and black gram flour, *parooṭṭaas* (small, sturdy pancakes made from refined wheat flour), and other food items. The government offices of the 'Agricultural Extension Officer' (*virivaakka ppaṇiyaḷaar*) and the 'Farmers' Society' (*toḍakka veeḷaaṇmai kuuṭṭuṟavu kaḍaṉ caṅgam*) responsible for Kaveripuram and several other villages were also located in nearby villages, as was the nearest government-operated Direct Purchasing Centre, where rice from the farmers of the region was purchased by the Tamil Nadu Civil Supplies Corporation (TNCSC) for the state's Public Distribution System (PDS; see Chapters 1 and 4).

Most inhabitants of Kaveripuram made a living from agriculture. However, land ownership and tenure were highly concentrated, leaving most households landless or with only small plots of cultivable land under their command. The dominant profession in Kaveripuram was agricultural labour, with an estimated 40 to 45% of the working population engaging in agricultural daily wage labour. However, an estimated 35% of the working population engaged in remunerative activities outside of agriculture, which highlights the increasing importance of employment outside of agriculture in rural Tamil Nadu, especially since the economic deregulation of the 1990s (Harriss-White/Janakarajan 1997, 1474-1476). Based on interviews, fieldnotes, and the results of the household survey, it can be estimated that only about 35 to 40% of households in the village owned or commanded over cultivable land other than small gardens next to their houses, most households thus being landless.[47]

Size of holding	Below 1 acre	From 1 acre to below 2 acres	From 2 acres to below 3 acres	From 3 acres to below 5 acres	From 5 acres to below 7 acres	From 7 acres to below 10 acres
Number of holdings	16	13	5	7	5	3

Fig. 4. Number and Size of Landholdings among Surveyed Households.

[47] Out of the 114 households surveyed in the household survey, only 49 owned – or commanded over – cultivable land, which means that only about 43% of surveyed households had access to cultivable lands. Furthermore, 59% of these holdings were of less than 2 acres (*fig. 4*).

Among the households surveyed in the household survey, the number of family members[48] who at the time were enrolled in schools, colleges, or universities or were undergoing job trainings amounted to 21%. This high number of students indicates that great stress was put on education and job training by my interlocutors. Indeed, according to the survey, 15% of family members had received a higher education degree or were in the process of pursuing one,[49] while another 20% had finished 10th or 12th standard or were about to do so in 2015.

It is, furthermore, important to mention that among the younger generation there was a strong trend of leaving agriculture. This becomes very clear when analysing occupational data from the survey only for the children of household heads and the former's spouses and children, that is the younger generations. Among this group, reportedly only 5% engaged in agricultural daily wage labour, while 20% were employed by private or governmental actors, 6% were self-employed or performed cleaning and housework for other people, and 41% attended school or other educational institutions. There was, furthermore, an equally clear trend of leaving the village altogether among the above-mentioned group, either for employment or for education. While, according to the household survey, 18% of the population resided in villages, towns, or cities other than Kaveripuram, among the above-mentioned, younger people, this number was 30%.

Castes, Classes, and Landownership

The Kaveri Delta is known for its particularly rigid forms of caste discrimination and segregation, as well as the persistence of highly unequal access to land and other resources based on caste affiliation (Athreya et al. 1990, 95-125; Béteille [1965] 1996, 185-225, Menon 1979b, 16). Before progressing to describing the social and spatial organisation of Kaveripuram, it is thus necessary to provide a quick overview of how caste has been explained in the anthropological literature and how caste in the Kaveri Delta has been described in seminal ethnographies. After that, I will move on to introducing the four major castes of Kaveripuram and illustrating their changing relationship with paddy agriculture as well as their changing social, economic and political positions in relation to one another.

On the Concept of Caste

Caste divisions are usually described in the academic literature as based on a hereditary economic and / or ritual division of labour. Castes are reported to be ranked in relation to one

[48] Family members asked about in the household survey included the household head and his or her spouse, the male household head's parents (since marriage in Kaveripuram was generally patrilocal), and the household heads' children, regardless of whether they lived in the household or resided elsewhere. In addition, any other person living in the household, such as a child's child or a child's spouse or a household head's sibling, were also included in the survey, if applicable.

[49] I have included diploma courses for participation in which completing the 11th and 12th year of school was not required in this category as well.

another according to the degree to which their hereditary tasks involve dealing with ritually polluting substances. Such substances include, for example, all human bodily fluids and everything that is dead or cooked, the most polluting and 'lowest' tasks being funeral-related tasks, the removal of human excrements, the removal of cow carcasses, or the manufacturing of leather (see Gough 1981, 17-20; Moffatt 1979, 27-31, referring to Dumont 1970). However, ranking also takes place according to the ritual and economic centrality of different castes. While Brahmins, for example, are said to be high-ranking due to their predominantly being (pure) vegetarians and abstaining from many polluting activities, other castes are high-ranking due to their power and command over economic and ritual resources, and thus their 'centrality,' rather than their purity (Raheja 1988, 24-36). The 'lowest' castes are those that conduct the most polluting tasks and are economically dependent on the higher castes. Some of these castes are treated by other castes as 'untouchable,' they are considered so polluting that they cannot be touched or allowed to drink from common village wells (Moffatt 1979, 3, 27-31). Castes are usually endogamous groups and there are often strong sanctions against the inter-marriage of members of different castes. It has also been shown that village residents often do not accept cooked food, water, and several other substances from persons they consider to be of 'lower' caste status than themselves, either because they want to abstain from the pollution that these members of less pure castes allegedly transfer into these substances by preparing or handling them or because they feel that accepting them puts them in a submissive position towards those who ought to be of lower status (Béteille 2012, 38-40; Dumont 1970; Gough 1981, 17-20; Mines 2005, 94-96; Münster 2007, 55-64; Srinivas [1952] 2003, 26-31).[50]

Caste in the Kaveri Delta

Several anthropologists have reported that people in the Kaveri Delta and adjacent areas most commonly categorise the many existing different castes into three overarching categories: Brahmins, non-Brahmins, and 'untouchable' *aadi dravidas* or Harijans (Gough 1952, 531; Béteille [1965] 1996, 13-17). This threefold division was still applied by village residents when I carried out my research. However, the terms *aadi dravida* and Harijan were hardly used anymore. The most commonly used term for castes from this group was 'SC,' which is the abbreviation of 'Scheduled Caste,' a category used by the government of India to designate castes scheduled for special reservations and schemes (compare Gorringe 2005, 20-21;

[50] In his seminal ethnographic study of the South Indian caste of the 'Coorgs,' Srinivas shows that the Coorgs differentiate themselves – and are differentiated by others – from the members of other castes by observing different taboos and kinds of behaviour, such as not marrying members of other castes, not accepting certain food and drink items from members of castes they consider less ritually pure than themselves, and not coming into contact with the castes designated 'untouchable' due to their perceived high degree of ritual pollution (Srinivas [1952] 2003, 23-44, 55-68; Radcliffe-Brown 1952, vii-xi, foreword in Srinivas [1952] 2003).

Mines 2005, 15; Münster 2007, 168-169). In this book, I refer to the castes that fall into this category as Dalits. Dalit literally means 'ground down' or 'broken to pieces' in Marathi and Hindi. The term refers to the common experience of discrimination and violence of so-called 'untouchable' castes and is used by many members of these castes as well as by both Dalit and non-Dalit political activists and social scientists to refer to such highly marginalised groups all over India (Rao 2008, 11). In contrast to the use of the umbrella category 'SC' for the different Dalit castes, my interlocutors generally referred to the castes that fell into the vast category 'non-Brahmin' by their individual caste names and also clearly distinguished these individual castes from one another. Only rarely were the relevant government categories, such as 'BC' (short for so-called 'Backward Classes') or 'OBC' for 'Other Backward Classes' used to refer to non-Brahmin castes in general. Brahmins were generally referred to as 'Brahmins' or by the designation *aiyar*.

As elsewhere in mainland India, caste groups in Tamil Nadu are reported to be ranked mainly according to their degree of ritual purity or pollution and / or socio-economic dominance or centrality. Brahmins in the region are known to be vegetarians, as are some of the most powerful groups of the non-Brahmin caste called Vellalars (Gough 1981, 29-34; Münster 2007, 156-166), while the other non-Brahmin castes are mostly non-vegetarian. Most Brahmin village residents avoid accepting cooked food, water, or other drinks, such as coffee or tea, from non-Brahmins for fear of pollution, while both Brahmins and non-Brahmins avoid accepting cooked food, water, or any other substances perceived as susceptible to pollution from Dalits and also mostly avoid touching members of Dalit castes. Dalits castes were – and usually still are – forced to reside in settlements outside of the village boundaries at some distance from the streets of the Brahmin and non-Brahmin castes (Gough 1981, 17-20; Harriss et al. 2010, 48; Münster 2007, Chapters 4 and 5).

As stated in Chapter 1, caste divisions in the Kaveri Delta are intimately tied to the division of labour and the distribution of the ownership of the means of production in paddy agriculture. It is important to note that the socio-economic status of particular caste groups in the Delta is significantly related to their historic possession of cultivable land, and that, conversely, an individual's chances of gaining access to cultivable land or benefitting from agricultural innovations are directly related to his or her caste affiliation (Gough 1981, 36-55; Harriss et al. 2010, 51-53). Until the first decades of the twentieth century, the land in most villages in the Kaveri Delta was owned by Brahmins or Vellalars, a high-ranking non-Brahmin caste. Other non-Brahmin castes, such as Padaiyaccis, Muppanars, or Konars would often cultivate the land of the aforementioned high-ranking castes as tenants or work for them as agricultural labourers. The major Dalit castes, such as Paraiyars and Pallars, mainly worked as agricultural labourers for Brahmin or non-Brahmin landowners (Gough 1981, 27-33; see Chapter 1). Paraiyars were further obliged to perform certain caste-based services (*tozil*)

related to death, inauspiciousness, and high ritual pollution for the 'higher' castes, such as playing drums made from cow skin to announce good or bad ritual occasions, tending cremation grounds, or removing and eating the cadavers of deceased cows from the main village (Moffatt 1979, 111-118). Paraiyars are thus generally regarded to be of lower status than Pallars in the Kaveri Delta, with some Pallars even stating that they would not eat food in Paraiyar houses (Münster 2007, 188-189). As stated in Chapter 1, the ancestors of today's Dalits in the Kaveri Delta were often owned and treated by higher castes as slaves until the abolishment of slavery under British rule, after which many of them continued to work for particular landowners as attached labourers (*paṉṉaiyaaḷs*). Münster describes that various kinds of *paṉṉaiyaaḷ* arrangements were still common in the village in the Kaveri Delta in which he conducted his study in the early 2000s. However, *paṉṉaiyaaḷs* were no longer overwhelmingly recruited from Dalit castes but a significant number of them belonged to non-Brahmin castes as well (Münster 2007, 104-111). There were four main caste groups in Kaveripuram, whom I will briefly introduce in the following sections.

Brahmins and Muppanars

Kaveripuram likely dates back to the Chola period. According to several interlocutors, the ownership of or control over most land in Kaveripuram had historically been concentrated among a few Brahmin families, who either owned the lands or acted as share-cropping tenants of the lands belonging to the large temple[51] in Kaveripuram, giving a share of each harvest from these lands to the temple.[52] The Brahmin landowners had the land cultivated by Dalit and non-Brahmin agricultural labourers, while some non-Brahmins and Dalits cultivated land as tenants of Brahmin landlords (compare Athreya et al. 1990, 22-27; Gough 1952, 531). Until the first half of the twentieth century, most of the village lands belonged to – or were cultivated under the supervision of – Brahmins. At the time of the research, however, the numerically and political-economically dominant caste in Kaveripuram were the Muppanars, a middle-ranking, non-vegetarian caste classified as BC by the government.

Indeed, the larger region was known to have a significant Muppanar population and was home to some very successful, wealthy, and powerful Muppanar families. Gough (1981, 29-30) describes the Muppanar caste as a caste of 'cultivators and former soldiers,' as well as shepherds, many of whom historically cultivated land as tenants of Vellalar landlords.[53] At the time of Gough's field research in the 1950s, Muppanars could also be found working as

[51] In order to better maintain the anonymity of the village and its inhabitants, the name and designation of the temple have been anonymised.
[52] Temple lands are cultivated according to fixed rent tenure (*kuttakai*), meaning that cultivators have to give a fixed share of the average harvest to the temple as rent (Kapadia 1995, 184; Münster 2007, 100).
[53] According to Gough, Muppanars served as foot soldiers under the Marathan rulers (1981, 30; see Chapter 1).

attached labourers (*veelaikkaaraṉ*) for larger landowners. Due to their caste status, they ranked higher than attached labourers from Dalit castes (*paṉṉaiyaal*), performed partly different tasks, and enjoyed certain privileges (Gough 1981, 51-52). My interlocutors generally placed Muppanars on a similar caste-level as Kallars or Padaiyacchis, with whom the former also shared a reputation of being a strong and intimidating caste. In day-to-day village life and at village events, Muppanars were the most visible caste in Kaveripuram. They also constituted the largest caste group in the village, probably accounting for more than half its population. Most of the agricultural land in Kaveripuram was also owned by Muppanar families. Indeed, several Muppanar families in and around Kaveripuram were known to be wealthy and powerful and owned and cultivated significant amounts of land.[54] However, it can be estimated that only about 40% to 45% of the Muppanar households in Kaveripuram owned or rented land for cultivation (49% among surveyed Muppanar households owned or rented land).[55] The majority of Muppanar families in Kaveripuram did not possess land, a significant number of these families being quite poor. Many of these latter Muppanar families engaged in agricultural or other kinds of daily wage labour, such as construction work, or other regular, low-paid work like working in jaggery manufacturing.

According to one of my Muppanar interlocutors, who had made it his task to study the village's past and who helped me tremendously by sharing some of his knowledge with me, some Muppanars already held significant amounts of land in Kaveripuram around the beginning of the 20th century. However, more general shifts in the possession of agricultural land seem to have started toward the end of the colonial period, when the Brahmins began to leave the village to receive formal education and find work in the cities. This trend accelerated in the last half century, as the new, urban-educated generation of Brahmins left the villages behind for good, while Muppanars and other castes increasingly emancipated themselves politically and socio-economically. Indeed, the introduction of land rights legislation (see Chapter 1), increasing anti-Brahmin sentiment, and a lack of Brahmin heirs willing to take over the management of cultivation encouraged Brahmin families to sell off more and more of their lands to members of other castes.

At the time of the research, most Brahmins below retirement age had migrated to big cities all over South India (compare Kapadia 1995, 15), or even to the US or Singapore, for employment and only visited the village for certain important religious or festive occasions. Some Brahmins had moved back to Kaveripuram after their retirement. The former prosperity

[54] Accordingly, the larger categories of landholdership in the household survey (*fig. 4*) are, from 3 acres upwards to 10 acres, dominated or even exclusively occupied by Muppanar households.
[55] The household survey included 59 Muppanar, 13 Paraiyar, 13 Pallar, 3 Hindu Kuravar (*indu kuṟavar*), 7 Brahmin, 5 Padaiyacci, 3 Nayakkar, 2 Mudaliyar, 2 Kammalar, and 2 vegetarian Vellalar households as well as one Maruttuvar, one Cettiyar, one Nadar, one Icai Vellalar and one Vanniyar household. The households were randomly chosen, often according to who was at home and could make time for the survey.

of the Brahmin community was still evident in the large, aesthetic houses that mostly characterised the Brahmin Street. The Brahmins still constituted the wealthiest and highest-educated group among the village residents, especially considering their wealthy and successful urban-dwelling family members and relatives. Among the seven Brahmin households surveyed, 37% of family members engaged in white collar employment with private employers or had done so before their retirement. Another 10% engaged – or had engaged before retirement – in white-collar or blue-collar work at government institutions, while another 47% of family members were housewives. Among the surveyed Muppanar households, in comparison, 15% of family members were employed – or had been employed before retirement – in private or public sector white-collar or blue-collar jobs. Among the seven Brahmin households surveyed, 40% of family members possessed a higher education degree, an additional 30% had passed 10th standard, and an additional 17% had passed 12th standard, while among the surveyed Muppanar households, 17% of family members possessed or were pursuing degrees in higher education, while another 17% had completed 10th standard or were currently enrolled in 10th or 11th standard and an additional 6% had finished or were currently enrolled in 12th standard.

Nevertheless, the remaining Brahmins' relevance in village matters had decreased significantly over the last few decades. No Brahmin household in Kaveripuram owned cultivable lands anymore, apart from large gardens in their backyards, and none of them was engaged in paddy or sugarcane cultivation. Furthermore, while some Brahmin families residing in the street still commanded over large amounts of wealth in comparison to the other village residents, some other Brahmin families who had stayed behind in the village had become relatively impoverished.[56] Their street being physically separated from the road and the other caste's settlements by the large temple and by trees, bushes, fields, and gardens, the Brahmin population remained mostly invisible in everyday village life. The Brahmin women rarely, if at all, left the confines of their settlements for other parts of Kaveripuram and neither did the men, apart from the few times I saw one or two of them make small purchases at the petty store on the road. Whenever Brahmins moved through other parts of the village, the other village residents did not observe any of the submissive gestures they might have been obliged to perform several decades ago, like bowing down, averting their gaze, or maintaining a considerable physical distance.

Dalit Castes: Pallars and Paraiyars

The members of the Paraiyar and Pallar castes, both Dalit castes, together made up an estimated 25% of Kaveripuram's population. Both castes had customarily worked as

[56] A Brahmin woman in her fifties, for example, stated that her father-in-law's land had gradually been sold off due to financial needs, such as for the marriages of her husband's sisters.

agricultural labourers for local landowners. At the time of the research, however, while agricultural labour was still the main source of income for most Pallars and Paraiyars aged thirty and above, all younger men and almost all younger women from these castes did not engage in agricultural labour at all. Instead, virtually all Dalit children and many of the young Dalit men and women went to schools and colleges every day, while some young men and women had left Kaveripuram for employment in urban areas across Tamil Nadu. This movement out of agriculture and the village and into colleges and jobs, even if they were low paying, likely reflected the desire of young Dalits to be independent from landowners and to leave caste discrimination behind (see Gorringe 2005; D. Gupta 2012). While the young generation tried to leave the village – or at least agricultural labour – behind, previous generations had also pursued various paths to self-emancipation. Indeed, over the last century, and particularly the last decades, many Dalits had moved out of attached labour relationships, acquired formal education and employment outside of agriculture, become economically more independent from landowners, acquired agricultural land or other means of production, and emancipated themselves from many forms of discrimination (see Chapter 8). Indeed, several families among both Pallars and Paraiyars had succeeded in acquiring significant amounts of land over the last decades (see Chapter 8).

Almost two thirds of Pallars owned or commanded over cultivable lands. Most of these lands, however, were temple lands. One of the big Brahmin landowners had distributed 50 *kuzi* (1/6 of an acre)[57] of temple lands each to about 20 families who were the descendants of his former attached agricultural labourers. Not all of them had accepted the gift and some of them had reportedly given their shares in the temple land to their relatives instead, so that some families had received 100, 150, or even 200 *kuzi* of temple land (up to 2/3 of an acre). As a result, more than 15 families in the Pallar Street cultivated temple plots sized between 50 and 200 *kuzi*. An estimated 20% of Pallar households in Kaveripuram owned or commanded over lands sized one acre or more, with at least 3 families owning or commanding over plots sized between 3 and below 5 acres (see Chapter 8).

The members of the Paraiyar caste were overwhelmingly landless, roughly two thirds of them not owning or commanding over cultivable lands. About half the landholdings among Paraiyars were also sized below one acre, with less than 10 households owning or commanding over lands sized between 1 and 5 acres, the largest landholding household owning 3 acres of land and sharecropping an additional 2 acres of temple land. Additionally, two Paraiyar families from one of the neighbouring villages possessed significant land holdings in Kaveripuram (see Chapter 8).

[57] In the area, the most common units for measuring land were *kuzi*, *maa*, and acre. 100 *kuzi* are one *maa* and three *maa* equal one acre. One acre thus equals 300 *kuzi*.

The results of the household survey reflect the ongoing significance of agricultural daily wage labour among the two Dalit castes. While, according to the household survey, Muppanars had a lower rate of agricultural daily wage labourers with 20% (27% of those who were not small children and not enrolled in educational institutions), among Pallars and Paraiyars, 51% (68%) and 37% (50%) engaged in agricultural labour. However, many Dalits, especially Paraiyars, had taken on employment in government jobs outside of the village and entirely withdrawn themselves and their families from agricultural labour or any other ties of dependency with landowners. The adult children of several Dalit agricultural labourers had succeeded in acquiring well-paid jobs in cities or towns and many of them had moved out of Kaveripuram. Economically, many of the Pallar and Paraiyar families were thus not worse off than many of the less endowed Muppanar families in Kaveripuram. Indeed, some of the former were relatively well-to-do in comparison. Among the surveyed Muppanar, Pallar, and Paraiyar households, Paraiyars had the highest percentage of respondents employed in private and public sector work with 18% (24%), while Pallars had the lowest with 11% (15%) among these three castes. This illustrates how more people from the Paraiyar caste tried leaving agricultural labour behind than from the Pallar caste, more people among the latter proudly engaging in agricultural labour and in cultivating their plots.

While achieved through political and socio-economic struggles, the emancipation of Dalits had most likely also been aided by several government schemes and acts passed over the last half century (see Chapters 1 and 8). Even though the Pallars and Paraiyars had emancipated themselves significantly from the higher castes over the last decades, caste discrimination was still practised in many contexts (see Chapter 8). Nevertheless, the socio-economic status of Pallars and Paraiyars in Kaveripuram can be said to have changed significantly when compared with older ethnographies of similar villages in the Kaveri Delta and other hubs of wet-rice cultivation in Tamil Nadu (see, for example, Athreya et al. 1990; Béteille [1965] 1996; Gough 1981; Harriss et al. 2010; Kapadia 1995; Mencher 1974a; Münster 2007; Moffatt 1979).

The Settlement Structure

Kaveripuram bore close resemblance to an Indian village in the traditional anthropological sense,[58] in that caste settlements were characteristically segregated in different streets and the Dalit castes occupied settlements that were spatially segregated from the main village, where the other castes resided.[59] The main village (*uur* or *uuru*) had been built around a large temple and contained the Brahmin Street as well as the residential streets of the non-Brahmin

[58] The outline and structure of Kaveripuram and its various caste settlements (as described here and illustrated in *fig. 5*) have been significantly altered to preserve the village's anonymity.
[59] Compare the settlement structure and its relation to caste as described, for example, by Béteille ([1965] 1996), Gough (1981), Harriss et al. (2010, 48); Moffatt (1979), or Münster (2007).

castes, while the Dalit settlements of the Pallar and Paraiyar castes were located across the road that ran through the village, in some distance from the *uur*. The main village and the Dalit settlements were all surrounded by paddy and sugarcane fields. There were also several elevated gardens that contained bananas, sugarcane, and coconut and teak trees, mostly south of Kaveripuram along the banks of Kaveri River.

The Brahmin street was located directly to the south of the large temple and continued eastward parallel to the Kaveri River. The western entrance of the street was marked by a small Ganesh temple, which was used by the Brahmins of Kaveripuram. The street was testament to a wealthy past. Several houses in the street showcased the wooden pillars and roofed verandas typical of houses built in the nineteenth and early twentieth centuries for well-situated landowning families. Each of these houses featured a large, rectangular hall for storing paddy bags, a large backyard garden, and a backdoor for lower-caste servants to approach the house. While some of these houses were still very well-maintained, others had fallen slightly out of shape. Towards the eastern end of the street, several smaller houses were occupied by members of high-ranking non-Brahmin castes, including *kammaaḷars*, a vegetarian artisan caste of blacksmiths and carpenters (see Gough 1981, 20),[60] vegetarian (*caiva*) *veḷḷaaḷars*, a *mudaliar*[61] household, and two Muppanar families.

Kaveripuram was home to two separate non-Brahmin settlement areas. Firstly, Muppanars as well as the members of the other non-Brahmin castes of Kaveripuram lived on three parallel streets east of the large temple, the northern-most of which was at the same time the road that ran through the village. Along both sides of the road, different families operated tea shops and one small grocery shop between residential houses. The easternmost tea shop, which was closest to the paddy fields north of the village, was the preferred location for farmers and agricultural labourers to take a break, consume tea and snacks, and chat with one another. It was run by a non-Brahmin family, who also lived in the same house. Kaveripuram's barber shop, which was also home to the barber, or *maruttuvar*, and his family, was also located on the road. While the residents of these three non-Brahmin Streets overwhelmingly belonged to the Muppanar Caste, several houses were inhabited by *paḍaiyaacci* families. Gough describes Padaiyaccis as a middle-ranking caste of tenants and owner-cultivators who are known to have served as foot soldiers for the Chola Kingdom (Gough 1981, 30). Muppanars and Padaiyaccis in Kaveripuram shared temples, ate in each other's houses, and held a common village council. However, even though one of my Muppanar friends living in the street was married to a Padaiyacci woman from the same street, marriages between the two castes were said to be an exception. There were further at least

[60] The male members of these households still worked as carpenters, but mainly outside of the village.
[61] Mudaliars were formerly weavers (Gough 1981, 19).

three houses belonging to members of the *naaḍaar* and *nayakkar* castes[62] in this part of Kaveripuram, and at least one household each of Mudaliyars, *ceṭṭiyars,*[63] *vaṉṉiyars*,[64] and *icai veḷḷaaḷars*.[65] The three parallel non-Brahmin streets were also home to several temples, one of which was a large temple dedicated to the village goddess Kaliyamman, which was located on the middle street.

There was a second non-Brahmin settlement area west of the large temple, which was exclusively occupied by Muppanar residents. It contained one row of houses along the road and a smaller street with another row of houses behind them. There were wealthy and powerful Muppanar families in both of the non-Brahmin settlement areas. However, the western settlement was home to most of the wealthy and powerful Muppanar families. The houses of the wealthier families tended to be bigger than the other houses, several of them being quite large. A few of these houses featured small courtyards encompassed by large brick walls and iron gates, creating an almost semi-urban impression, and some houses also had second floors or featured marble tiles inside. During the main research in 2014 and 2015, Raja and I stayed for rent in a large house that was located at the fringes of the western non-Brahmin area and belonged to a wealthy and well-respected Muppanar entrepreneur and landowner, who generously provided us with this opportunity.

The Pallar settlement was separated from the higher castes' settlements by the road and was directly surrounded by paddy fields in the west, north and east. From the main village, the buildings in the Pallar Street were hidden from view by coconut trees and the buildings along the road. The Pallar residential area was comprised of three streets, which were connected to one another in the shape of an 'S.' At the northern-most, western end of the 'S,' one could find a big temple dedicated to Kaliyamman, to the northwest of which there was a small Pecchiyamman shrine facing the fields.

A significant distance away to the northwest lay the Paraiyar Settlement. The Paraiyars lived in a settlement that was remote from the main village, about a hundred metres north of the road, reachable only through a narrow path and otherwise surrounded by an ocean of paddy fields and hidden from view by the many coconut trees that grew along the edges of their settlement. The settlement comprised two parallel streets. In the southern street, two families of *ambaṭṭars* (barbers)[66] resided in the two western-most houses.

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[62] These castes are known as 'coconut growers and tappers of palm wine' (Gough 1981, 31). However, none of the households continued this line of work.

[63] There were several different groups of Cettiyars in the area, some of whom were traditionally traders, while others were traditionally weavers or owners of oil presses.

[64] Gough (1981, 30) describes Vanniyars as a caste of agricultural tenants and owner-cultivators related to, but a little bit lower in status than, Padaiyaccis.

[65] Icai Vellalars are a caste of trumpet players. The word *icai* means music in Tamil.

[66] There are different castes known as 'Ambattars.' According to Gough (1981, 22, 24), the 'Ambattars' of the non-Dalit castes did not serve Paraiyars and Pallars as barbers. Probably in response to that, she argues, the latter castes had designated small subcastes within their own castes to perform the functions of barber and washerman for them. Unlike the other barbers, the members of these subcastes

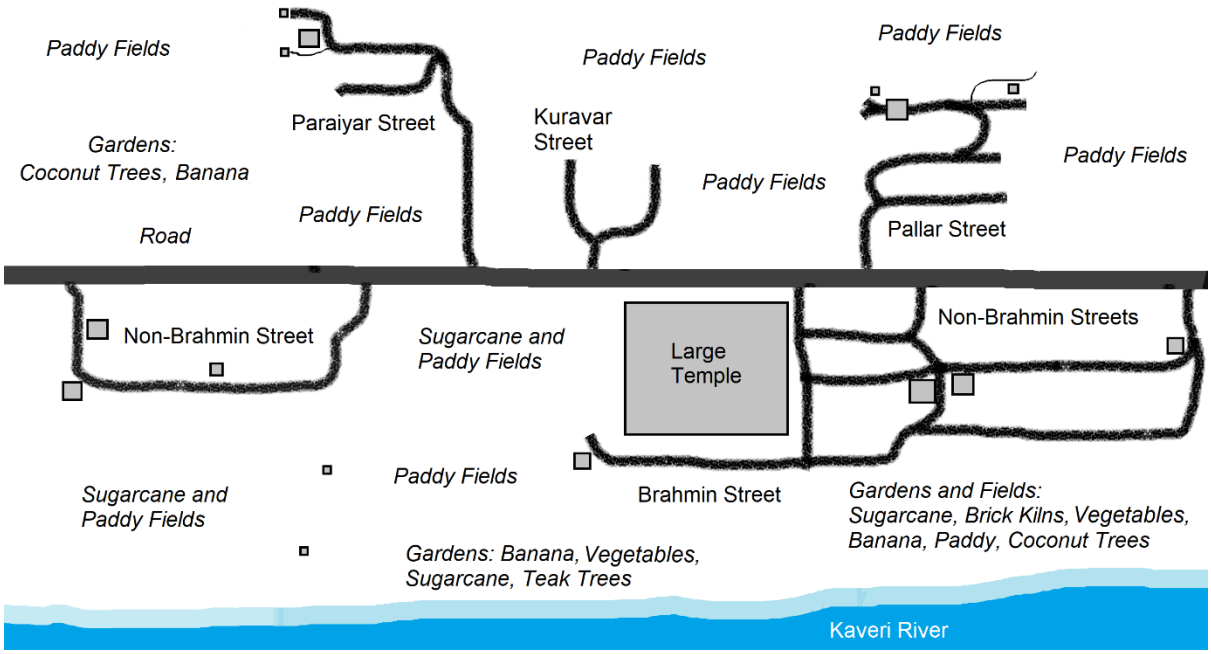

Fig. 5. Map of Kaveripuram, indicating caste streets, temples, and shrines (indicated as grey blocks), and fields, gardens, and brick kilns.

One of these two houses was home to the *veṭṭiyaaṉ,* whose caste-based hereditary task (*tozil*) it was to perform services in relation to death ceremonies and cremation grounds for the Muppanars and Paraiyars of Kaveripuram (see Moffatt 1979, 187-212 and Münster 2007, 195-205 for detailed descriptions of the *veṭṭiyaaṉ*'s position and tasks). He did not, however, offer his services to the Pallars, who relied on a ritual specialist from another village. Except for the *veṭṭiyaaṉ*, the Paraiyars in Kaveripuram had stopped providing any polluting or inauspicious hereditary services (*tozil*) generally associated with their caste to the other castes. They did, for instance, no longer play the drums at functions or remove bovine cadavers from public places (see Moffatt 1979, 111-118; Münster 2007, 195-197). Most houses in the northern Paraiyar Street were larger and older than those in the southern street, the latter mostly exhibiting the layout typical of houses built with the support of government housing schemes. The caste group's own temple dedicated to the Goddess Kaliyamman was located at the western end of the northern street. Behind the temple, there was a small shrine dedicated to Pecchiyamman, which bordered the fields.

East of the Paraiyar Settlement, there was another settlement comprised of two streets. Members of different castes had settled there only quite recently. The western street was occupied mainly by members of the *kuṟavar* caste, a Dalit caste, who had lived close to a nearby town before and had recently relocated to this street. About half of the 20 or so houses there, however, were empty, as their inhabitants had again relocated elsewhere to perform different kinds of daily wage labour. The eastern street was home to members of the

were also mainly agricultural labourers and thus, she states, not recognised as separate from Paraiyars and Pallars by the other castes.

Paraiyar and Pallar castes who had been granted plots there and had thus moved out of their respective settlement areas. Having introduced Kaveripuram and its major caste groups, I will now describe the important changes in agricultural cultivation, soil usage, and irrigation patterns in and around Kaveripuram that occurred together with the changes in paddy cultivation outlined in Chapter 1.

Changes in Soil Use, Cultivation Patterns, Irrigation, and Cropping Seasons

Agriculture in and around Kaveripuram was fuelled by the Kaveri River and a web of ever-smaller channels emanating from it. The lands directly at the northern banks of the Kaveri River were too high for submersion through channels, the land either being used to cultivate dryland crops or trees or irrigated with pump sets. The low paddy fields farther away from the banks were connected with the river through various main channels, which were regulated through sluices managed by the Public Works Department. These paddy fields were levelled in such a way as to become lower and lower towards the north and east, so that water from the channels could reach every field. How significantly cultivation patterns were influenced by access to water became apparent when one went across the Kaveri to the southwest. There, where lands were dryer, maize, different commercial flowers, different vegetables (like aubergines and lady's finger), bananas, and sugarcane could be found on the fields, while paddy was almost non-existent.

Indeed, the main criterion for distinguishing different kinds of plots was their access to irrigation. Those lands low enough to be flooded by river water and thus suited for rice cultivation were classified as *nañcai* or 'good land' while those that were too high to be river-irrigated and thus unsuitable for rice cultivation were called *puñcai* ('thorny land'). The latter lands had previously been used for cultivating vegetables or dry land cereals, such as certain kinds of millet or gram. They had been irrigated by rainwater or using manually operated wells. *Puñcai* lands had further been used as threshing floors for (manually) harvested paddy. Such lands used as threshing floors were called *tiḍal*. Of Kaveripuram's total agricultural lands, almost 80% were officially classified as *nañcai* and the remaining 20% as *puñcai* lands.[67]

At the time of the research, vegetables or millets were no longer cultivated on *puñcai* lands. Instead, many of the wealthier landowners exclusively cultivated sugarcane on these lands, as this cash crop afforded them with the highest profits. According to my interlocutors, sugarcane cultivation in the area had increased dramatically with the advent of motor pump sets in the 1970s and 1980s and had replaced the dry land crops and vegetables cultivated on the elevated land before. Vegetables were now only available in the markets and shops, as were millets and pulses, all of which were imported from drier areas. Furthermore, since the

[67] The actual amount of cultivated *puñcai* lands can be expected to be lower due to the recent conversion of *puñcai* lands into brick kilns. Furthermore, due to the availability of ground-water irrigation technologies, many *puñcai* lands could be used for cultivating water-intensive crops, too.

advent of harvesting machines, *tiḍals* had no longer been needed as threshing floors. Many smaller and less wealthy landholders had thus converted their *puñcai* lands into brick kilns, 'harvesting' the clay soil to create bricks and sell them.[68]

The soils in the immediate vicinity of the river, south of the settlements, were light brown in colour and sandy with a low clay content, while a few hundred metres to the north of the river, across the road, the soil was greyish brown and had a high clay and lower sand content, thus being well suited for paddy cultivation. Farmers accordingly distinguished between *maṇaccaaru* (sandy soil) and *kaḷimaṇṇu* (clay soil). The former was predominantly used for sugarcane cultivation, while the latter was used mainly for cultivating paddy. According to farmers, sugarcane grew much better and its yields were much higher in the sandy soil, while paddy grew better in the clay soil. In fact, farmers often stated that paddy was the only thing that grew in the clay soil fields, as many of them were too low and thus too prone to flooding for any other crop to survive. The main area for paddy cultivation thus lay to the north of the road and around, in between, and beyond the Pallar and Paraiyar settlements. Bananas were cultivated on some of the more elevated clay soil fields and gardens as well as in sandy soil. Sugarcane was only rarely cultivated on elevated clay soil fields, as the yield was unsatisfactory. However, on the elevated, sandy lands adjacent to the river, sugarcane was practically the only crop planted. Paddy was not cultivated in the sandy soil as a main crop. It was, however, used as a rotation crop for sugarcane in the lower sandy soil fields.

With about 1020mm of mean annual rainfall, Thanjavur district falls into the category of 'medium and high rainfall region' exceeding the average normal rainfall of 925mm for Tamil Nadu. However, most of the rainfall happens during the time of the North East Monsoon between October and December (Planning Commission n.d., 20; Thiyagarajan/Kalaiyarasi n.d., 4), which is preceded by the South West Monsoon in the months of June and September, while during the rest of the year it might not rain for months at a time. Thus, since the medium to hot temperatures allow for agricultural cultivation almost year-round, the availability of water is the most crucial determinant for agricultural activities in the region (Athreya et al. 1990, 56-57). Accordingly, in and around Kaveripuram, paddy was normally planted in two seasons – the first being called *kuruvai* and the second *taaḷaḍi* – that corresponded with the timings of the South West and the North East Monsoon respectively. The sowing of paddy seeds for *kuruvai* started as early as mid-May and could last until early July, mostly depending on the time a particular farmer could be sure to have access to sufficient water. For *kuruvai*, cultivators planted paddy varieties that took between 90 and 120 days to mature. Harvesting thus set in around mid-September and went on for about six weeks (see Punithavathi et al. 2012, 46-47, for an overview of the cultivation seasons of different crops in Thanjavur district). It was customary among farmers planting *kuruvai* crops to leave a small area of their fields

[68] In 2015 bricks were sold for 5 INR per piece.

empty and use it to plant and nurse new paddy saplings even before the *kuruvai* harvest was over (see detailed description of the cultivation process in Chapter 3). This would allow them to transplant the *taaḷaḍi* paddy sooner. The sowing for *taaḷaḍi* started at the earliest in the second half of August and was ideally over before the second half of October, when the heavier rains were supposed to set in. For *taaḷaḍi*, cultivators planted rice varieties that needed 120 to 140 days to mature. The *taaḷaḍi* harvest thus happened anytime between January and March. A single paddy crop per year was called *cambaa*. Farmers who were not willing or not able to cultivate *kuruvai* paddy cultivated *cambaa* paddy. *Cambaa* cultivation usually started around the same time or slightly earlier as *taaḷaḍi* and lasted about as long or longer, as cultivators planted varieties that could take up to 160 days until they were ready for harvesting (compare Punithavathi et al. 2012, 46-47).

Despite the adjustment of cultivation to the Monsoon periods, the biggest problem farmers faced was securing the irrigation of their crops. In recent years, farmers had been facing more frequent droughts while the availability of water in Kaveri River had also decreased and become more irregular. Apart from insufficient rainfall, this latter problem was related to the ongoing dispute over the Kaveri water between the states of Tamil Nadu and Karnataka (see Chapters 1 and 4). Due to the unpredictable timing of the release of water in the Kaveri River through the opening of the dams, the dates of sowing for all seasons varied widely, depending on whether or not farmers were able to support their crops by tube well irrigation or had to wait until they were certain that there would be sufficient river water to sustain the crop. Indeed, over the decade preceding the research, those farmers who could afford it had erected tube wells even in the low, river-irrigated paddy fields (see Chapters 4 and 8). Compared to the neighbouring village in the west, the fields to the north and south of Kaveripuram thus had very good access to tube wells and farmers used them intensively for *kuruvai* and increasingly also for *taaḷaḍi* and *cambaa*. The high amount of dependence on tube wells, however, had already seriously impacted the groundwater level. Several farmers reported to have drilled deeper shafts for tube wells recently, since the old wells had not been deep enough anymore.[69] Some farmers, who possessed tube wells of sufficient depth and were not worried about the degradation of their soil, cultivated a third season of paddy as well, which was entirely reliant on tube well irrigation. This season had only come about with the Green Revolution and did not have a proper Tamil name. It was often referred to as *muuṉaan bookam* (third season) and lasted from after the *taaḷaḍi* harvest until May or June. The rice varieties planted for this season were usually the same as those planted for *kuruvai.*

Sugarcane cultivation usually began in the dry months between February and May, since the small canes cultivated in the lower fields would otherwise run the risk of dying from

[69] Tube wells were mostly referred to as *booru*, from the English ‘bore well,’ while motor pumps were called *mooṭṭar* or *pamp seṭṭu*.

flooding. The canes took between 10 to 12 months until harvesting. Afterwards, a second cultivation period was carried out in eight to ten months. Farmers agreed that the best prices for sugarcane could be achieved shortly before Diwali (celebrated in late October or early November) and *poṅgal* (mid-January). Many farmers thus tried to time their harvests shortly before either of these events. After two sugarcane harvests, usually one crop of *taaḷaḍi* paddy was cultivated as a rotation crop, before this cropping pattern was started anew.

As can be seen, the intensive use of groundwater irrigation, a massive increase in sugarcane cultivation, the vanishing of vegetables, millets, pulses, and grams, a decrease in elevated land, and the introduction of a third paddy cultivation season were some of the major changes in cultivation patterns and land and water use that had occurred in Kaveripuram.

Chapter 3: Rice and the Cultivation of Life in the Paddy Meshwork

In this chapter, I describe how my interlocutors enacted paddy and rice in different contexts within the social-ecological relations of Kaveripuram, particularly how they related and engaged with and described paddy and rice as crops growing in the fields, as a staple food and household item, and as a ritual offering and ritual item. I further illustrate how my interlocutors used rice as a major means of expressing love, care, devotion, and respect and of maintaining relationships with valued social actors. I argue that my interlocutors treated paddy and rice as playing a fundamental role in 'the cultivation of life' (Marriott 1976b, 194), meaning the development and sustenance of their bodies, the raising of children, the cultivation of the family and household, and the continuation of the patrilineage.

I hold that in all these contexts, paddy and rice became meaningful for my interlocutors mainly by virtue of the qualities they embodied, such as the capacity to multiply and to give life to new rice plants, the capacity to grow and prosper, containing the nutritious 'essence' necessary for nourishing humans and other beings, or the quality of being useful without spoiling. I show that my interlocutors enacted these 'embodied qualities' (see Chapter 1) as partly inherent in the paddy grains, but also as constituted to a large extent by the paddy's enmeshment with various substances and its being physically influenced by various social-ecological actors and entities and cosmological actors throughout its cultivation process. I thus speak here of the 'paddy meshwork' (see Chapter 1). This way of perceiving entities as embodying qualities and as being constituted and continuously influenced by different substances is coherent with what Marriott (1976a) and Daniel (1984) describe as an 'Indian' or 'Tamil' perspective on the world as constituted of different intermixing substances, the meanings of which are part of their physical constitution.

Drawing on these approaches, I argue that rice as part of the 'cultivation of life' was experienced and treated by my interlocutors as a physical carrier of life and life essence. Embodying the capacity to multiply and grow and to nourish humans and other life, while having themselves been raised and nourished by humans and the soil, paddy and rice were enacted as auspicious embodiments of the continuity of life and the meshwork within which life takes place. I further argue that, for my interlocutors, rice was a major means for connecting different actors, engaging in relationships with them, and transferring auspicious blessings between them. I also show how, through their engagement with paddy and rice and other actors and entities in the paddy meshwork, my interlocutors not only came to enact the rice as an important and meaningful entity but also came to enact themselves and the other actors and entities involved in particular situations as embodying certain qualities and performing

specific roles, for example in relation to their gender (compare Graeber 2001, 58-59; Law & Mol 2008; see Chapter 1).[70]

I begin the chapter by outlining approaches by different scholars regarding what they understand as culturally specific perceptions, among different groups of people in India, of the world as constituted of different inter-mixing substances that are prominently connected through different forms of ingesting and transmitting substances. I then introduce the concept of auspiciousness (Carman/Apffel-Marglin 1985; Raheja 1988; Srinivas [1952] 2003; Tingey 1993) and outline its vital importance for understanding my interlocutors' perceptions of the social-ecological processes I discuss in this chapter. After that I describe how my interlocutors enacted and perceived rice – and other actors and entities involved in their engagement with it – in different situations. I depict my interlocutors' engagement with rice during its cultivation and during its use as a staple food and I illustrate their enactment of rice as a ritual offering and a ritual item used in cultivation and life-stage rituals. Furthermore, I will describe the important role of rice for the cultivation of the family and household and for the maintenance of relationships with important social actors.

The Inter-mixing of Substances and the Importance of Auspiciousness

According to Marriott, in 'Indian thought,' the nature or essence of a person or any other entity is not perceived as fixed or contained within said person or entity but as the fluid product of a whole variety of different substance particles that constitute – and circulate through – all material entities. The essence or character of any person or entity is thus to some extent subject to altercation, since any person or entity changes their composition when ingesting different substances, for example through food intake. Furthermore, he posits that substances in 'Indian' perception are not different from their meaning or 'code' but are simultaneously physical substance and idea or meaning, which means that – in this perception – actions, norms, and symbolic meanings are not separable from – and indeed exist as – physical substances. He thus speaks of 'substance-code' (Marriott 1976a, 109-111). Similarly, Daniel (1984, 2-11; see Chapter 1) argues that Tamil village residents understand themselves and the world around them as constituted of different intermixing substances possessing different qualities or characters. In this view, different entities – such as human bodies or rice plants and grains – are not strictly bounded or contain an entirely unchanging essence but exchange

[70] What I state here about the importance of paddy and rice, can, of course, also be argued for various other beings, things, and substances, which were also regularly used in rituals, considered very important, and enacted as embedded in meshworks and as embodying various auspicious or otherwise important qualities. Since I conducted the research and analysis and wrote this study with a focus on rice, the depictions here, unfortunately, have a somewhat narrow focus on paddy and rice. The idea here is not to create the (wrong) impression that everything revolves around rice, but to show that rice is very important in the contexts described here and to illustrate how it was enacted and used by my interlocutors and how it was embedded in the reproduction and cultivation of various (social) bodies, relationships, and identities (see Chapter 1; Bartelheim et al. 2015, 39-41).

substances and thereby influence each other, such that their qualities and characters are to a significant extent constituted through their involvement with various substances and with each other.

One of the main ways of ingesting substance-code is through the intake of food (Marriott 1976a, 111). Indeed, the idea that bodies are transformed by – and partly constituted of – what they take in has been identified as prominent in rural Tamil Nadu (see Daniel 1984; Sujatha 2002), as has the notion that the 'intake' of the right substances is not just essential for human beings and animals to live and engage in physical activities but also for other beings and things including – among others – deities, ancestors, plants, the soil, and even motored vehicles, for all of which some form of 'intake' is seen as essential for being healthy or functional (see Sujatha 2002, 85).[71] Similarly, according to Zimmermann (Zimmermann 1982, 242, cited in Apffel-Marglin 1987, 31), in Ayurvedic understanding, both agricultural land and the human body are engaged in parallel and interlinked processes of irrigating/feeding and draining/being depleted. All these authors' findings point toward the tremendous importance of the relation between food and body - or, more broadly, of the intake of substances – in the described perception. As we shall see, the concepts outlined here also apply to my interlocutors' perceptions of their own bodies and the social-ecological system of which they are a part.

As we shall further see, relationships of feeding and nourishing (and the highlighting of their importance for the reproduction and continuity of life) were a central feature of my interlocutors interaction with – and enactment of – other people, rice, and other actors and entities in the paddy meshwork, especially in ritual contexts. Indeed, similar to what Apffel-Marglin (1987) describes in her study of rural Odisha, the growth, reproduction, and continuity of life – such as embodied in the cultivation and harvesting of paddy but also in the birth and raising of children or the continuity of the male lineage – were enacted by my interlocutors as embedded in cosmological relations of feeding, nourishing, caring, and blessing, within which deities and deceased ancestors played vital roles. Apffel-Marglin states that socio-political, environmental, and bodily processes converge for her interlocutors,[72] who understand all of these as part of one cosmological chain of being, in which food lies at the root of all being and all human activity:

[71] Sujatha, for example, quotes one of her interlocutors as stating 'Can you eat little and lift more? So is the earth. **Only if you feed it with manure** will it lift the yield high? (sic)' (Sujatha 2002, 85; my emphasis).

[72] According to Apffel-Marglin, for her interlocutors, there exists a perceived '... continuity between agricultural processes, bodily processes and socio-political processes. The person is integral to a natural environment and to a social environment. The individual is not viewed – as in the West – pitted against nature in an effort to conquer and dominate it, nor in opposition to society. In this system of thought, the person's very being derives from its integration into nature, society and cosmos' (1987, 29).

> ‘The chain of being in the universe is the production and consumption of food through repeated transformative processing from the cooking in the earth by the sun and by water to the kitchen fires and cooking water. But all the kitchen fires are also sacrificial fires and all food is first offered to the deities. The food will be truly nourishing and sustaining of health, well-being and happiness only through the blessings of the gods. The gods, being sustained through human food offerings, in return shower blessings on humans’ (Apffel-Marglin 1987, 32).

Such blessings are received by humans through the food that is first offered to the deities and then – bestowed with the deities’ blessings, which are necessary to ensure human sustenance, prosperity and happiness – consumed by humans as ritual offerings (*prasaada*, or in Tamil, *prasaadam*; Pinkney 2008, 6). Thus:

> ‘The foodchain forms a complete cycle in which the deities play a linch-pin role. From the earth rises the sap into the plants, harvested and variously processed by humans who offer it to the gods who inhale the food’s fragrance. At this end point of a continuously ascending and progressively refining process from the earth to the heavens, the food begins a downward path as the left-over of the gods, eaten by humans, who are sustained and whose bodies drain themselves of the impure left-overs – the non-incorporated or non-used parts of the food, i.e., feces, urine, sweat – which returns to the earth’ (Apffel-Marglin 1987, 32-33).

These insights fully apply to the ways in which my interlocutors established and maintained relationships with important actors (such as deities) and enacted the transferring or receiving of qualities (such as blessings bestowed onto ritual food offerings) between various actors and entities. An important concept pertaining to these actions and perceptions is that of ‘auspiciousness.’ As many studies have shown to be the case for Hindus in various places across India, the continuing pursuit of auspiciousness also occupied a central place in my interlocutors’ activities (Carman/Apffel-Marglin 1985; Marriott 1976b, 194; Raheja 1988; Srinivas [1952] 2003).[73]

The Importance of Auspiciousness

For Hindus, auspiciousness is ‘the divine blessing which makes life itself possible’ (Tingey 1993, 55). Auspiciousness is – and brings about – ‘fertility, prosperity, health and happiness,’ whereas its opposite, inauspiciousness, manifests itself in misfortunes like disease, infertility, or crop failure. According to Carman, auspiciousness can be understood as designating

[73] Indeed, my observations from Kaveripuram do not concur with Dumont’s (1970) assertion that purity and pollution are the defining values of Hindu society. Ritual purity seemed to become important for most of my interlocutors only when they conducted rituals in which they worshipped deities or ancestors, that is when ritual purity was required of them and of the spaces in which they conducted the rituals as a precondition for the ritual to be successful (compare Carman/Luke 1968, 32; Khare 1976, 157, cited in Apffel-Marglin 1985a, 2). Pollution mostly seemed to matter to my interlocutors when they had to follow pollution-related restrictions, such as after a birth or death in their family or patrilineage or when avoiding entering the houses of ‘lower’ castes. What was, however, of absolutely central importance, was auspiciousness (see Raheja 1988).

'"Good Luck" or well-being in the present temporal world [as] symbolized in the wedding […], in married women whose husbands are living, in the king or prince…' and as pertaining to the 'pursuit and enjoyment of wealth and power' and the 'satisfaction of physical desires' (1985, 114). Auspiciousness is coterminous with – and considered vital for – the growth, continuity, and renewal of life and '… bringing about or maintaining the well-being of persons, families, houses, and the village as a whole' (Raheja 1988, 37; Apffel-Marglin 1985b, 79-81).

All rituals accompanying the passage of a person from one life-stage into another, and thus this person's development, are considered auspicious occasions. Weddings represent the most prominent and most celebrated auspicious occasion, given that they initiate and represent the union between man and woman from which healthy children are to arise (Carman 1985, 114; Srinivas [1952] 2003, 69). Srinivas describes that for his interlocutors, auspiciousness is so important and the securing of auspiciousness so intimately tied to life-stage rituals, that all auspicious life-stage rituals, especially weddings, are referred to by using the word 'auspicious' (*maṅgala*; Srinivas [1952] 2003, 69). Indeed, various studies, such as those of Srinivas ([1952] 2003)[74] in rural South India, Raheja (1988) in rural North India, or Tingey (1993) in Nepal, have argued that maintaining or securing auspiciousness and avoiding or preventing inauspiciousness through various ritual acts are absolutely vital and crucial concerns for their Hindu interlocutors, while, according to Carman and Luke (Carman/Luke 1986, 32, as cited in Apffel-Marglin 1985a, 2), '… the auspicious state […] is the quintessence of normal life in society…' among South Indian Hindus.

In the Hindu ritual calender, there are specific astronomically 'auspicious' and 'inauspicious' times for carrying out important activities and important activities should always be begun at specific auspicious times in order to be successful (Raheja 1988, 38; Srinivas [1952] 2003, 74-79, 108-111). Different months of the year, different phases in the moon cycle, different days of the week, different particular days, and different hours during different days are all understood to have auspicious or inauspicious effects on important activities and events according to the positions of the nine planets of Hindu astrology, which include the sun and the moon. However, whether a certain time is auspicious and inauspicious, also depends on the type of activity or event in question. An inauspicious time for carrying out one type of activity could be auspicious for carrying out another. Any ritual for securing auspiciousness for a particular event or activity thus needs to be conducted at a particular auspicious date and

[74] Srinivas identifies the concepts of auspiciousness and inauspiciousness as well as those of purity and pollution as playing an absolutely central role in village social relations and ritual endeavours. He categorises auspiciousness and ritual purity under the term 'good-sacred' and their opposites under them term 'bad-sacred,' auspiciousness and purity being highly valued and given great importance, while inauspiciousness and impurity are to be avoided (Srinivas [1952] 2003, 69).

time and involves the worship of particular deities in a particular order (see Raheja 1988, 38-60; Tingey 1993, 55).[75]

According to Srinivas, his interlocutors from the South Indian Coorg Caste are involved in different social groups or systems, the first and most prominent being the patrilineal joint family or *okka*, with the members of whom a Coorg has the strongest ties and the well-being of whom is of crucial importance for him or her, as is the continuity of their patrilineage. Every joint family has their own daily rituals, holds rituals on specific occasions, and carries out rites of passage for its members, such as for births, weddings, or deaths (Srinivas [1952] 2003, 44-68). Similarly, the main social and ritual unit in Kaveripuram was the family or household, which usually contained a nuclear family, consisting of husband, wife, and children, and potentially the husband's parents. It sometimes also included the wife and children of an adult son, or a sibling of the husband. The main concern of almost every ritual of worship conducted by my interlocutors was the well-being or auspiciousness of their family or household, the securing of auspicious qualities in members of the family, or the bestowing of such qualities upon them through the blessings of deities, ancestors, or other beings. Auspiciousness and auspicious qualities were to be secured through rituals of worship at every auspicious life-stage celebration, that is all life-stage events except for funerals.[76] Furthermore, the ritual securing of auspiciousness when beginning an important undertaking was highly important for my interlocutors. Any beginning of an important undertaking was thus preceded or accompanied by rituals of worship conducted at a time found to be auspicious for the undertaking in question. The first time an activity was undertaken – such as the birth of a woman's first child or the first sowing or transplantation of the year's first paddy crop – was considered especially important and involved the most elaborate rituals.

Auspicious qualities were all those which were associated with growth, fertility, and reproduction, that is with the growth and development of life as well as its continuity through reproduction. This included the procreation of married couples and the raising of healthy and able children, but also the multiplication and growth of crops or money. In general, the growth of the wealth or success of a household was considered auspicious. Everything contributing to the former or to the health and well-being of humans and other beings, such as the dedicated care of a wife or mother, was auspicious, too. Success in education or professional

[75] Every Hindu household in Kaveripuram possessed one or several calendars indicating the auspicious times for every day as well as whether a given day as such was particularly well-suited for carrying out marriages or other important activities. While my interlocutors used the calendars to select auspicious times for sowing their paddy and other activities, the dates for very important events, such as weddings, were determined with the help of specialists, such as Brahmin or Tiruvalluvar priests (compare Raheja 1988, 39-42).

[76] My interlocutors generally considered death ceremonies inauspicious and incompatible with auspicious occasions.

life was also seen as auspicious (see Nagarajan 2007, 100-103).[77] My interlocutors usually referred to being in an auspicious state or to auspicious events, persons, or forces as *nallaa* or *nalladu* ('good' or 'the good'), while the inauspicious was called *keṭṭa* or *keṭṭadu* ('bad' or 'the bad'). Declining wealth or harvests, failure to reproduce due to infertility or other causes, disease, being unsuccessful in career or education, or any other kind of misfortune or affliction were considered inauspicious, as were premature deaths (see Tingey 1993, 55, 68).

Knowing that auspiciousness and well-being were the aims of most rituals of worship and many day-to-day activities, is important for understanding the significance and role of rice in the lives of my interlocutors, as I will show in this chapter.

Cultivating Paddy

Paddy cultivation started with the ploughing of the earth and the subsequent sowing of the paddy seeds in a small corner of the paddy field, in which the paddy saplings were initially to be raised.[78] For sowing, paddy seeds were filled into steel buckets and carried into the field by male agricultural labourers, who threw handfuls of paddy seeds into the field, where they developed into small saplings. Sowing was usually carried out in the morning, after the seeds had been soaked in water overnight to encourage germination.

After about 30 to 35 days, the saplings were transplanted into the main field. The transplantation process consisted of two steps. First, the saplings had to be pulled out of the soil. This activity was called *naattu paṟikka* (sapling removal) and was performed by male agricultural labourers of the Paraiyar and Pallar castes (see Chapter 8). The men sat down with one foot and one knee on the ground. They made a fist around the saplings, pulling them out of the ground sapling by sapling, alternating between both hands. When they had assembled enough saplings in their hands to make one bundle (*muḍi*), they wrapped one sapling around the others, tying its leaves into a knot. Bundles were thrown to the side of the field, where they were later tied into large bunches (*kaṭṭu*) using ropes. Each bunch would be lifted up by two male agricultural labourers, one of them helping the other to lift the bunch up onto his head in order to carry it to the field designated for transplantation.

The transplantation (*naḍavu*) of the saplings into the main field was exclusively done by women from the Pallar and Paraiyar castes (see Chapter 8) on the same or the next day as the sapling removal. The women worked bowing down and using their thumb, index and middle finger to put the saplings into the mud (*ceeṟu*). Each sapling was planted about 15cm

[77] The importance of auspiciousness was so great that when a person was part of an auspicious occasion or event, such as a wedding, the first transplantation of paddy, or the starting of a new business, this person would not attend death ceremonies of more distant relatives or other inauspicious events right before or during the activity, so as not to endanger the auspicious event in question. As was explained to me early on in the research, not attending a death ceremony due to being involved in an auspicious activity was a legitimate choice.

[78] While this is called a 'nursery' in English, my interlocutors simply referred to it as 'saplings' in the plural (*naattaṅga*).

next to the other in the left and right direction. It was common practice for women to use a rope (*kayiṟu*) to transplant the saplings in even rows (*fig. 6*).[79] Before transplantation, the main field was flooded for about two days to then be ploughed and levelled with a power tiller on the morning of the transplantation, after which male agricultural labourers used their large hoes (*maṇveṭṭi*, colloquially *mambutti*) to level remaining uneven spots and build strong bunds out of mud around the field before the women started transplanting.

Fig. 6. Saplings freshly transplanted using the 'one row' technique.

Cultivating Embodied Qualities

After the transplantation of the saplings, the paddy fields needed to be cleaned of weeds two times, once around the 15th and once around the 30th day following the transplantation. This was usually done by female agricultural labourers who walked through the fields and ripped out the unwanted plants by hand. Herbicides were applied subsequently by a male agricultural

[79] This could be done in two different ways. In 'eight feet' (*eṭṭaḍi*) plantation, two women standing on the bunds of opposite sides of the field moved along with the transplanting women, spanning a rope across the field every eight feet. The transplanters left a 20 cm gap along the rope every time it was spanned, while transplanting saplings all around them in the remaining space. These gaps, which occurred every eight feet, could later be used to walk through the fields and apply fertilisers or spray the plants with insecticides or other chemicals without stepping on the plants. A more recent introduction was the 'one row' or *ottaip patti* technique, where the rope was spanned roughly every one foot, so that straight and even rows of two saplings per foot were planted by all women. With this technique, there was more space between the individual saplings, thus requiring less saplings for the same area.

labourer each time, in order to prevent the weeds from growing back quickly.[80] Paddy needed regular irrigation and most farmers in the area kept their fields constantly flooded at a level of about 5 cm, mainly to prevent weeds from growing. However, at specific times during the cultivation process, such as during the early nursery stage and right before the harvest, the fields had to be left unirrigated for some time.[81] The crops also needed to be protected from grazing animals, such as cows and goats, which would otherwise eat a significant amount of the paddy grains.[82] Furthermore, the paddy plants had to be checked regularly for signs of pests, insects, or fungi, so that the correct pesticides, insecticides or fungicides could be applied in time to prevent major damage to the plants. Landowners, owner-cultivators, and agricultural labourers emphasised that they had to nourish the paddy plants properly in order to induce their proper development. Thus, most importantly, the right fertilisers had to be applied at the right times. There were fixed times when fertilisers needed to be applied, such as right before or on the day of transplantation and right after each subsequent weeding as well.

Many farmers visited their fields every morning – or paid a trusted agricultural labourer to do it for them – to check on the water level and the constitution of the plants. Cultivators[83] would touch and feel the leaves, compare the plants' colours, carefully look for signs of insects and pests, assess the quantity of weeds, check the bunds of the fields, and perform other checks. Indeed, cultivators assessed the plants' health and determined the accuracy of the plants' developmental progress by regularly checking on and meticulously observing changes in certain embodied qualities of the plants, such as their height, thickness, foliar strength, colour, or texture.[84] For example, as my interlocutors explained, certain insects or pests could be recognised by the paddy leaves' turning yellow, while, whether the paddy was ready for harvesting could reportedly be assessed by its acquiring a golden colour, but also by whether the grains were still milky when crushed or not. Based on their assessment of the plants'

[80] Other than the removal and transplantation of the saplings, which was exclusively carried out by Dalits, weeding and the application of herbicides and other agro-chemicals were also carried out by members of non-Brahmin castes, as were other tasks such as sowing, levelling, or manual harvesting (see Chapter 8).

[81] One farmer, for example, stated that after sowing, the fields had to dry for one week, then be lightly irrigated until – from the 15th day onwards – they would be fully irrigated. When the paddy plants turned golden, he stated, one had to stop irrigating.

[82] Once I witnessed Pallar female labourers rip off the upper half of the paddy saplings' leaves during transplantation. It was explained to me that this was done to prevent small birds from causing damage to the young paddy crops by sitting on them.

[83] I use the term cultivators in this chapter to designate the persons who assessed the plants' health and development and organised or carried out their cultivation. This includes agricultural labourers working for landowners, landowners (or persons who leased or sharecropped fields) who cultivated paddy themselves (owner cultivators) and landowners who checked on the plants themselves or took part in some agricultural activities, while hiring agricultural labourers to perform most or all of the agricultural work for them.

[84] My interlocutors referred to the crop's growth (*vaḷarcci*) as the main criterion for judging the developmental progress of the plants. Growth could mean advances in height as well as in thickness or robustness.

growth and health through checking for the plants' development of these various embodied qualities, cultivators decided whether they had to intervene and, for example, use more of a certain fertiliser or apply an insecticide. I call these qualities embodied, because they were physically present in the plants and sensually perceived by my interlocutors. Indeed, cultivators' sensual perception of the plants was focused on these qualities, the cultivation of paddy thus also being a cultivation of – or an attempt to develop – certain embodied qualities in the paddy (see Chapter 1). In conversations about their paddy, my interlocutors referred to these qualities, explaining them as the result of different ecological processes and as indicative of the plants' health as well as of whether the plants had reached a certain stage of development or not.

In conversations, cultivators also referred to the sun, river and bore well water, rain, wind, insects, fungi, pests, birds, fertilisers, and other actors and entities in terms of their perceivable effects on the paddy plants' embodied qualities. One farmer, for example, stated that when the husks in the paddy plants' ears became thick, as if they were 'pregnant,' one should not stop irrigating the paddy or the milk that could be found inside the husks would spoil and no grains would develop from it. The cultivation duration and the quality and quantity of certain substances contained in the soil were also considered to have an impact on the embodied qualities of the plants and grains. For instance, the rice cultivated in *kuruvai* was often said to have less taste and nutritional value, since, because of the shorter cultivation duration, it could not mature sufficiently. How quickly the paddy saplings were transplanted after they had been removed from the soil was seen as influencing the paddy's development positively or negatively. Paddy cultivated using organic manure rather than mineral fertiliser was generally said to possess much more nutritional value and taste (see Chapter 6), while some people claimed that the local soils contained a high quantity of nutritious essence and thus led to the plants' producing bigger grains (see Chapter 5). Furthermore, the sun and the planets of the solar system were perceived to have auspicious or inauspicious influences on certain undertakings in paddy cultivation, which, in turn, could positively or negatively impact the development and constitution of the plants and grains and the harvest.[85] My interlocutors' perception of the paddy plants and the other actors, entities, and substances involved in cultivation can thus be described as a meshwork perspective, since they described physical qualities of the paddy based on their sensual perception of them and understood them as resulting from the paddy's enmeshment with other substances or 'substance-code' and as

[85] For the first sowing, transplanting, and harvesting of paddy, the right days had to be observed. Sunday was considered the birthday of paddy (*nellu piṟanda naal*). Killing, that is harvesting, paddy on a Sunday was thus taboo, whereas Sunday was a very auspicious day for beginning to sow or transplant paddy. On Tuesdays and Saturdays, on the other hand, cultivators did not carry out their first sowing or transplantation of the cultivation season, as these days were considered inauspicious for the growth of the paddy. These days, however, were considered auspicious for the first harvesting of paddy, especially Saturdays.

being physically influenced by cosmological actors (see Chapter 1; Daniel 1984; Ingold 2011; Marriott 1976a).

Roles and Qualities Related to Growing, Feeding and Caring

Out of all the influences on the growth and health of the paddy plants and on their development of the desired embodied qualities, my interlocutors particularly stressed the importance of organic 'essence' (*cattu*) or strength (*tembu*, *cakti*, *balam*), which they saw as vital for plants, just as food is vital for humans (compare Dewan 2019, 99; Sujatha 2002, 85). According to my interlocutors, the saplings and plants derived essence from the soil. They stressed that the soil needed to be given fertiliser in order to have enough essence or strength to nourish and strengthen the paddy plants, so that they would grow and develop the right characteristics.

Cultivators explained to me that the different kinds of fertiliser available were categorised according to three different kinds of *cattu* ('essence') that were necessary for the plants to develop certain qualities and capacities at different stages in their developmental process. The first of these was 'grain essence' (*maṇi ccattu*), the name of which referred to the development of the grains inside the ears of the paddy plants, but which was also important for the development of the plants' roots. Common commercially available fertiliser mixtures associated with this essence were 'complex' and 'D.A.P.'. These were generally first applied during the transplantation of the saplings, often together with urea. About 15 to 20 days after the transplantation, together with the first weeding, *tazai ccattu*, which can be translated as 'foliar essence,' needed to be applied for the growth of the plants. The fertiliser used for this was urea. Cultivators stated that urea made plants grow in height and develop a stark green colour, but did not contribute to their developing thickness or strength.[86] Another 15 to 20 days later, preferably with the second weeding, 'ash essence' (*caambal ccattu*) was given to the plants to make them stronger and more resistant against sunlight, drought and insects. For this occasion, potash was used in combination with urea. According to cultivators, when potash was given to the plants, they would grow stronger (*azuttamaa*), but their vertical growth would be slow. According to a Muppanar farmer, up to another 20 days later 'grain essence' could be applied again to support the development of the grains. Cultivators were very concerned with the development of healthy grains in sufficient quantity in each ear and checked upon it with great care. Once the grains had developed, no more chemicals were to be applied.

As can be seen, the perception of the paddy plants by the cultivators was based on the latter's involvement in a relationship of care with the paddy plants and on how the plants

[86] A Paraiyar farmer, for example, told me that it usually took five to six days after urea was applied for the plants to ingest it and show a response, for example by taking a big step in growth, but also by becoming greener. This very process, according to his experience, could attract insects and make it necessary to spray the plants with insecticides.

physically responded to their actions. The paddy saplings and plants were talked about and treated as growing and developing organisms that needed to be taken care of. Since '…to care about something, or for somebody, is inevitably to create relation' (Puig de la Bellacasa, M. 2012, 198), this care-based relationship between cultivators and paddy was reflected in how some of them described their relationship with the paddy saplings.

In several conversations and interviews I conducted with agricultural labourers and farmers, they compared cultivating paddy saplings to raising children and the life of a plant to the life of animals and humans. A Padaiyacci priest and a Padaiyacci farmer, for example, likened the process of ploughing the fields and sowing the seeds to a marriage, since the seeds and the soil were joined and new life was created. When the seeds germinated and extended their roots into the soil, they explained, new paddy seedlings were conceived and would develop like an embryo. Several people explained that paddy saplings, like all grains, were a life (*uyir*) and thus had to be protected and nourished like a child. Being like children, paddy saplings had to be treated accordingly by showing them care, devotion, and respect. Several older agricultural labourers told me that when they were young they would throw a couple of sapling bundles around the landowner walking on the bund of the paddy field, thereby entrapping him. Since it was unthinkable to step on helpless children, the landowner reportedly had to pay them money for them to release him out of this trap.

The soil, which, in union with the seeds, gave birth to and nurtured the paddy plants, was worshipped as the mother of the saplings. Paddy fields, like all kinds of fields or gardens, were only to be entered barefoot, as stepping on the soil with sandals would mean kicking and disrespecting Mother Earth (*taai buumi*). According to a married couple of senior agricultural labourers from the Pallar Street, the relationship between themselves and paddy involved not only the nurturing, but also the creation of life, both of them stating that they created, took care of, and raised the saplings, which they compared to children.

Based on their physical interaction and relationship with the paddy plants, my interlocutors thus enacted both themselves and the paddy plants in a certain way, as parents and children (see Chapter 1; Graeber 2001, 58-59). The paddy saplings were children, because they needed to be conceived, protected, fed, and cared for in order to live and develop their embodied qualities of growing and producing offspring themselves. Similar to very young human children, they were seen as delicate, not able to survive without protection and care, and very susceptible to the wrong or right diet. The cultivators were parents, because they provided the paddy with food in the form of nutrients from the soil by planting the seeds and saplings in the soil and by applying fertilisers to it. They gave the paddy life by sowing it and they raised it to develop into a proper being through their attentive care and protection. It is important to note my first interlocutor's emphasis on 'feeding' children and paddy plants. As illustrated previously, notions of intake and feeding have been shown to be

highly important in rural Tamil Nadu (see Sujatha 2002, 85; Trawick Egnor 1978, 164-165). The chemical fertilisers introduced since the 1960s had been integrated into this logic of intake, the three kinds of essence to which cultivators referred corresponding to the three basic components of mineral fertiliser regimes.[87] As illustrated so far, paddy saplings were enacted as beings that needed to be fed and cared for, the developmental progress of which cultivators assessed by checking on their development of certain embodied qualities. However, the desired embodied qualities were not only brought about through feeding and caring for the saplings but were also the subject of different rituals of worship, or pujas.[88]

Cultivation Rituals: Social-Ecological and Cosmological Actors and Influences

Cultivators showed gratitude to and asked for blessings from deities and other actors and entities involved in the cultivation through several rituals of worship undertaken at different stages before, during, and after the cultivation process. Such rituals were undertaken in a similar manner by almost every cultivator in order to ask for the bountiful, healthy, and undisturbed growth of the paddy and thus a good yield. Two of these rituals were especially elaborate and important: the transplantation puja, which was conducted on the day of the first transplantation of the year,[89] and *tai poṅgal*, the thanksgiving to the sun after the harvest on the first day of the Tamil month *tai* (15th of January).

The Transplantation Puja

It was 9.30am on a hot day in the second half of June 2014. The South-West monsoon had just arrived, marking the beginning of the *kuruvai* cropping season. Raja and I went to the fields to watch the paddy transplantation of a Muppanar landowner with whom I had become acquainted. It was the first transplantation for him that year. After venturing about 150 metres into the fields, we arrived at the right place and proceeded to stand and wait on the bund next to the Northeast or 'Saturn Corner' (*caṉi muulai*) of the field where the ritual preceding the first transplantation was to be conducted. The paddy saplings had already been lumped together

[87] The terms for the three essences used by my interlocutors are also used in agricultural publications in Tamil, from which they most likely derived. The three essences correspond to the three basic macro-nutrients provided by chemical fertilisers, nitrogen (*tazai ccattu*), potassium (*cambal ccattu*) and phosphorus (*maṇi ccattu*), also known as NPK. Gupta (1998, 154-160), in his ethnographic study in rural Uttar Pradesh, shows that the agricultural knowledge of his interlocutors was composed of elements drawn from various knowledge systems and his interlocutors' knowledge of and experience with HYVs, agro-chemical inputs, and other recently introduced elements was integrated by them into what he calls the 'humoral agronomy' developed and applied by his interlocutors.

[88] Puja means the ritual worship of a deity (Münster 2007, 228).

[89] Since the new year of the Tamil calendar starts with the beginning of the month *cittirai* around the 15th of April, the first transplantation puja usually took place during the *kuruvai* or *cambaa* season, that is between June and October (see Chapter 2). However, some cultivators conducted another puja for the first transplantation of the *taaḷaḍi* season as well, while one cultivator told Raja and me once that he had performed the puja for the third season shortly after new year and thus did not perform one for *kuruvai*.

in one big pile in the middle of the field, which was already flooded with water. The same had been done in the adjacent fields belonging to the same owner. While a few agricultural labourers were picking up loose grass that had been uprooted by the power tiller, the senior male agricultural labourer, a thin but muscular man in his 60s wearing a lunghi (*kayli*) around his waist and a towel (*tuṇḍu*) wrapped around his head, started wading towards us. He put a big, freshly cut banana leaf on the newly created bund in the Saturn Corner and started arranging the ritual items, while the owner, standing next to him, lit two pieces of coir (coconut fibre) with a match. Apart from them and two other male agricultural labourers, the female agricultural labourers who would later carry out the paddy transplantation were present. The senior male agricultural labourer proceeded to place the ritual items onto the banana leaf. All the while he kept struggling with the latter, which – due to the strong wind – kept folding backwards, until he fixated it on the ground with a heavy bunch of bananas that was one of the ritual items. Simultaneously, an older female agricultural labourer built a cone-shaped figurine out of clay soil, rolling it between her hands and applying water from the field to it, and placed it on the bund next to the banana leaf. Another woman plucked a blade of *a̲rukam* grass (*cynodon dactylon*), folded it, and gave it to the first woman who twisted it into the mud figurine she had built. She proceeded to apply a dot of turmeric paste and vermilion powder (*kumkumam*) onto the figurine with her right index and middle fingers. The senior male agricultural labourer meanwhile incinerated a pack of incense sticks (*vaatti*) with the burning coir and put some betel leaves (*vettelai*) from a plastic packet on the banana leaf. He then added some areca nuts (*paakku*) on top of them. He also placed some *avul* (puffed rice flakes) and *kaappu arici* (sugared raw rice) on the banana leaf.

One of the senior female agricultural labourers present now carried three big bundles of paddy saplings from the middle of the field to the Saturn corner, placing them into the water in front of the banana leaf. The first woman now applied turmeric and vermilion dots to each of the sapling bundles, while the field's owner smashed pieces of camphor (*cuuḍam*) with a coconut. At the same time, a younger female agricultural labourer opened a plastic bag containing a long garland of jasmine flowers, cut off two small strips from the latter with a knife, and wrapped one strip around the neck of the clay figurine and put the other on top of the three sapling bundles. She then handed the bag to the other female agricultural labourers, who were standing on the bund, so that each one of them could weave a flower garland into their hair. The fieldowner went on to put the camphor into the flames of the burning coir, as did the senior male agricultural labourer and the other two male agricultural labourers present. The senior male agricultural labourer then sacrificed a coconut by holding it into the camphor smoke, cutting it in half, and spilling the water. The two coconut halves were then put on the banana leaf with the white sides up. He sacrificed a second coconut the same way. A moment of prayer, carried out by all people present, followed, during which he reignited the incense

sticks and stuck them into a banana, which he put next to the clay figurine. Then everyone started moving. The three women who had taken part in preparing the ritual now dissolved the three sapling bundles that had been included in the puja, and two of them started transplanting these saplings in the Saturn corner. Before transplanting the first sapling, the first woman moved the saplings in her hands towards her head in a gesture of respect. The second older woman carried one of the bundles to another older male agricultural labourer, who was standing in the middle of the field, and dipped it briefly into the water above his feet for him to bless the saplings, upon which he also raised his hands and put his fingertips together, thereby showing respect to the saplings. She then did the same to the senior male agricultural labourer who had conducted the puja. She went to another senior female labourer to get her blessings for the saplings as well, before starting to transplant the saplings. Each time she sought someone's blessing for the saplings, she raised them briefly in front of her chest afterwards thereby also receiving the goodwill and blessings of the three older agricultural labourers. The senior male agricultural labourer now distributed the puffed rice flakes and the sugared raw rice (*kaappu arici*) as ritual offerings (*prasaadam*) to everyone present. Everyone further applied turmeric and vermilion to their own foreheads. The main offering was the *kaappu arici*, which was served with a large steel spoon from a big pot into the participants' right hands.

A similar ritual was performed by most cultivators for their first transplantation of each year's first cropping season. Such rituals were always performed during the auspicious time (*nallaa neeram*) of an auspicious day. The puja was usually conducted by either the farmer himself or his oldest and most trusted agricultural labourer, asking for the blessing of his crops. While either one of these people was usually a man, respected married women could also perform the puja in case there was no man to do it.[90]

The first deity to be worshipped in the ritual was Ganesh. Ganesh, who in any auspicious rite of worship was worshipped first to secure the success of the ritual, was usually sculpted out of turmeric, for example in two wedding rituals I attended.[91] For the transplantation puja, my interlocutors explained, Ganesh was made out of soil (*ceeṟu*) from the field, since this soil – as *taai buumi* (Mother Earth) – was to nurture and take good care of the saplings until they were harvested. Several interlocutors explained that they thought about Mother Earth while performing the ritual. Having worshipped and received the blessings of Ganesh (and Mother Earth) for the undertaking, different deities could now be worshipped to bless the saplings, the purpose of the ritual being to make sure that the saplings would grow well, remain healthy, and provide a good yield ('*nellu nallaa vaḷaranum*'). Different interlocutors said they worshipped different deities for this purpose. However, the most common answer

[90] My research assistants and I witnessed this several times in the fields of Pallar cultivators.
[91] Turmeric, having anti-inflammatory qualities, was reportedly supposed to ward of anything bad that could interfere with the success of the undertaking.

was that they worshipped the sun (*suuriyaṉ*), whose activity was said to make the growth of the crops possible.

The women who planted the saplings during the ritual were usually older married women who had children and whose husbands were still alive (*cumaṅgali*; see Alex 2016, 114; Daniel 1984, 117). The desired embodied qualities attributed to them – of being fertile and nurturing, being mothers, and taking good care of their husband and children – made them the most appropriate persons to touch the saplings and bless their union with the soil from which fertile, strong, and healthy paddy plants should derive.[92] As 'mothers' of the paddy saplings they were further in the position to bless the saplings and to have the saplings blessed by the senior male agricultural labourers present, who provided their 'fatherly' blessings.[93] A very important aspect of the ritual was presenting ritual food offerings (*naiveettiyam*) to the deities and subsequently distributing food offerings blessed by the deities (*prasaadam*) to the human ritual participants. By ingesting these offerings, ritual participants could ingest the auspicious divine essence bestowed into the food by the deities (see Pinkney 2008, 6). However, this particular food was reported to have another effect as well. For the transplantation puja, the offering of choice was a mix of uncooked raw rice (*paccai arici*), jaggery (*vellaam*), sesame (*eḷḷu*), grated coconut (*teṅgai*), and *yellow dhal* (*kaḍalai paruppu* or *poṭṭu kaḍalai*). This was called *cakra arici* (sugar rice) or *kaappu arici* (protection rice). My interlocutors explained that this rice was given to the people present, because it would make them happy with its sweet and saturating qualities. Having a full stomach, they would be grateful and have no negative feelings that might affect the paddy saplings. Being happy and grateful, they would also work well.[94]

In this ritual, all the worshipped actors and entities were enacted as social beings who contributed to the process of successful paddy cultivation and who were thus worshipped and thought about. The (future) development of the qualities desired for the paddy saplings was enacted in the ritual as the outcome of the enmeshment of the saplings' inherent capacity to grow with the qualities or auspicious agency of the other actors present in the ritual, whose blessings were invoked. The other agricultural rituals – for the first ploughing, the first sowing, and the first harvesting – involved a similar enactment of the paddy's development as the

[92] According to a Brahmin former landowner, widows or childless women should thus not be allowed at the transplantation ritual at all, their presence being considered inauspicious. However, in the transplantation rituals of Muppanar and Dalit cultivators that I witnessed, this rule was not followed.

[93] The interpration that the blessings given by the agricultural labourers are „motherly" and „fatherly" blessings is my own a posteriori interpretation of the ritual. Unfortunately, I did not discuss this with my interlocutors.

[94] Another pragmatic explanation was that they would be able to work well, because the food contained much rice and sugar while at the same time not being heavy in the stomach and not needing to be consumed in large quantities. According to a Brahmin interlocutor, the sesame would eliminate the hunger, the sugar would provide energy, and the raw rice (*paccai arici*) consumed in small quantities would prevent stomach problems. It was also very cheap to prepare, which was important when giving food to many people.

result of the enmeshment of qualities and auspicious agency of various actors within the meshwork. On the day of *tai poṅgal*, for example, members of each household prepared *cakra poṅgal* (sugar *poṅgal*), a sweet, milky rice dish, and *veṉ poṅgal* (white *poṅgal*), a bland, milky rice dish, from the first harvested paddy and presented and offered them to the sun (*suuriyaṉ*) on a banana leaf. By doing so, they paid the sun respect and expressed gratitude for the paddy that had grown under the sun's influence. They further cooked the dishes in freshly crafted clay pots made from the local soil, around which they wrapped fresh turmeric and ginger roots. The *poṅgal* was cooked on stoves made from three freshly crafted and still unburned clay bricks, again made from the local soil, while a Ganesh figurine made from cow dung might also be part of the ritual setup. Together with the *poṅgal*, cultivators usually also presented and offered small amounts of the other crops they had cultivated and harvested, such as bananas, to the sun, while they might add other food items as well.[95] On *maaṭṭu poṅgal* ('cow *poṅgal*'), which took place on the day following *tai poṅgal* and marked the second day of the *poṅgal* celebrations, every family that owned cows or oxen washed them and adorned them with flower garlands, sandal paste (*candaṉam*), vermilion powder, and other ornaments. They would then cook fresh sweet *poṅgal*, worship the cows and oxen, and feed them the *poṅgal*. I was told that, because cows and oxen contributed so much work every day, on *maaṭṭu poṅgal* they were to not do any work and be bathed, fed sweet *poṅgal*, and worshipped to acknowledge their contribution and show them gratitude and respect. This ritual, of course, stems from the time when oxen were still used for ploughing and for pulling carts and thus constituted an essential part of paddy cultivation; cows and bulls also used to provide the organic manure for the fields and cows used to provide – and still provided – milk and gave birth to calves (see Harris 1985, ch. 3; Harris et al. 1966). In these rituals, thus, the sun, soil, cows, oxen, cow dung, and the cultivated crops were present and their contributions in the paddy meshwork were acknowledged.

While paddy was treated as a growing and developing being during its cultivation, once it was harvested, it became a resource (Bartelheim et al. 2015, 39-41) for my interlocutors due to the qualities that had been cultivated in it and that could now be used in different contexts.

Paddy and Rice after the Harvest: Embodying Desired Qualities

Rice was stored in every household. It was the main staple food and the basis of almost every meal. As food, the rice now embodied many different qualities for my interlocutors, such as its smell, taste, size, and texture, its cooking behaviour and ability to maintain its texture when cooked, or its colour (see Chapters 5 and 7). One of the most important embodied qualities of

[95] Two whole sugarcanes were also part of the puja's setup. These, however, were not taken from the sugarcane cultivated in Kaveripuram. Instead, people bought specially cultivated *poṅgal* sugarcane (see Chapter 2) for this purpose.

(harvested) paddy and (husked) rice for my interlocutors was the nutritious essence or strength contained in it.

Organic Essence: Sustaining and Developing Humans

According to my interlocutors, rice gave the human body the essence (*cattu*) or strength (*tembu, cakti,* or *balam*) needed to grow up and develop properly, to maintain its well-functioning, to be unaffected by illness, and to perform physical and mental tasks. According to my interlocutors, the essence or strength contained in the rice was derived from the soil in which it had been cultivated and by which it had been nurtured. Previously, when mostly organic manure had been used, most of the essence contained in the soil, my interlocutors claimed, had been derived from cow dung. From the soil, the essence was transferred to the plants, including the grains, and into the humans and animals eating the grains and plants. Indeed, my interlocutors seemed to use the word *cattu* to refer to an organic essence that was present in every living being and was transferred from one being to the next. Food intake was seen as the main or even only source of essence and strength. According to my interlocutors, the main carrier of essence was rice, as it was the main staple food. The accompanying vegetables were also talked about as having essence by my interlocutors but were usually not mentioned as major sources of essence. What was commonly discussed was either rice or millets, that is staple grains. Another important aspect is the relational quality of essence. Indeed, from interviews and conversations I got the impression that the word *cattu* was not used to refer to a specific nutrient or substance but rather to the effect that food had on the human body or any other actor's or entity's body. Essence as a quality existed in the relationship between rice and the human body, just as it existed in the relationship between paddy plants and the soil or the soil and fertilisers or manure. People who were seen as lacking muscle mass or being too thin were also described as lacking *cattu* (see Chapter 6).

My interlocutors also often referred to rice as giving the body *tembu*, which was a colloquial word referring to bodily strength or capacity.[96] It seemed to mainly describe a feeling of strength or power, while its absence referred to a feeling of weakness or powerlessness. Especially agricultural labourers and other people who regularly engaged in physical labour emphasised the feeling of strength they got from eating rice, especially in the form of rice meals (*caappaaḍu*). Indeed, many agricultural labourers stressed that they preferred rice meals above all other foods, since rice gave them the most strength and saturation and thus allowed them to work harder and not feel weak or hungry again quickly. The word used for a rice meal, *caappaaḍu*, was also the word most commonly used for food. Many agricultural labourers claimed that they preferred eating *caappaaḍu* three times a day, as no other kind of

[96] I am grateful to Muruganandam for explaining the meanings of this and many other Tamil words to me patiently and in detail.

food would allow them to work as hard. My interlocutors further stressed the importance of eating at the right times and in the right quantities (see Sujatha 2002, 86-88). Indeed, the regular intake of food at the correct three times of the day was considered so important that one of the most common greetings in the village was the question: 'have you eaten?' ('*caappuṭṭiiṅgaḷaa?*').[97]

Rice was further the preferred food for raising children in a proper, healthy way. According to my interlocutors, when introducing infants to foods other than breast milk, they were to be fed cooked rice in different forms, for example mixed with *racam*, a pepper sauce. Rice could also be served in the form of *kañci*, a kind of water-based rice soup or thin rice gruel, or was mixed with potatoes and lentils, mashed, and fed to children.[98] Children were usually hand-fed by their mothers or other female members of the household, even as they kept walking around and playing or doing other things. According to Trawick Egnor, hand-feeding children is a common expression of motherly love and care in Tamil Nadu and can continue for many years (Trawick Egnor 1978, 164-165).

Rice thus took on the same nourishing, life-giving, and growth-inducing qualities for humans that humans, the soil, and fertilisers had taken on for the paddy plants before. The nourishing and growth-inducing qualities embodied by paddy and rice were now used to nourish adults and raise children. Rice was considered vital for providing humans with essence to ensure their proper bodily development and sustain their bodily health and strength. Rice was thus seen as making human development, life, and bodily activity possible. In the following subsection, I describe the role that rice played in two life stage rituals, that is rituals that facilitated a person's transition from one life stage into another.

Life-Stage Rituals: Blessings and Nourishment

All life-stage rituals were to be conducted on an auspicious day during the auspicious time of the day. According to my interlocutors, in all life-stage rituals, the (future) well-being and good and successful development of the children and adults on behalf of whom the rituals were conducted were the main concern. Similar to the transplantation puja, these rituals involved the ritual blessing of the person or persons for whom the ritual was conducted so that they

[97] While a local Brahmin priest argued that eating rice was essential for keeping the body strong and healthy and that, out of all the grains, only rice contained full and complete strength, many non-Brahmin and Dalit farmers and agricultural labourers were more pragmatic concerning the connection between staple food and body. A common answer was that rice was so important because it was the main food and that it was the main food, because it grew here in abundance. In this view, millets, for example, could be just as nourishing and healthy, or even healthier (see Chapter 6).

[98] According to my interlocutors, *iḍli* (rice cakes), *aappam* (thick rice-based pancakes), and banana pulp could also be fed to children less than a year old, as could rice with *caambaar*, a water-based curry sauce with vegetables and lentils. When children grew older, they would increasingly be fed eggs, meat, and fish, unless they belonged to a vegetarian caste.

would develop important and desired qualities, such as growing well, being healthy, and becoming a successful, responsible husband or a caring and auspicious wife and mother.

An important life-stage ritual was the piercing of both ears of a child. The ear-piercing ceremony (*kaadu kuttu*) could be carried out when a child was about one year old but it could also be conducted later in life. For the ear-piercing ceremony, among many other items and ingredients, three cylinders were made of different foodstuffs and placed next to one another in a circle. One cylinder was made out of *kaappu arici*, mostly containing raw rice (*paccai arici*) but also a little bit of sesame and yellow dal, while one was made out of sesame (*ellu*), and another one out of yellow dhal (*poṭṭu kaḍalai*). *Kaappu arici* was distributed to the guests after the ritual, along with other items, such as bananas, sugar, and betel leaves. This *kaappu arici* was to be provided by the maternal uncle (*taai maamaa*), who would also bless the child. For the piercing of the ears – which was carried out by a professional goldsmith – the child would be sitting in the lap of its maternal uncle, who would calm it down and feed it a sweet shortly before the piercing of each ear, to lessen the pain and distract the child. Either in combination with the piercing of the ears or prior to it, the head of a child was to be shaved bald once (*moṭṭai*). This ritual was usually performed at a very young age for girls (so that their hair would not have to be shaved off when they were older), while boys might also have their head shaved later. During the shaving of the hair, the child would again sit in the mother's brother's lap. For this occasion, the maternal uncle was again supposed to bring *kaappu arici*. Both of these rituals were usually performed at the temple of the child's family's lineage deity (*kula deyvam*).[99] For both rituals, the lineage deity would be worshipped. The lineage deity or its guardian deity might also be offered an animal sacrifice, usually a goat.

Rice played a central role in these life-stage rituals. In the form of *kaappu arici*, rice was offered to the guests to satisfy them, while preventing bad feelings. Different rice-based foods were offered to the deities as ritual offerings (*naiveettiyam*), such as *poṅgal*, and afterwards distributed as *prasaadam* to everyone who participated in the event. Furthermore, the guests were served a rice-based meal by the hosts. This was most often the noon meal.[100] Here again, the satisfaction of the deities and the visitors from being respected, fed, and cared for was to guarantee that the deities happily blessed the child (and the other human participants) and that the guests did not have negative feelings against the hosting family

[99] The ear-piercing ceremony could also be conducted and celebrated at the home of the family in question or at another location. The shaving of the head (at least of the first child), however, was reportedly required to be conducted at the lineage deity's temple.

[100] In almost every case, this noon meal was *caappaaḍu*, the proper version of which included several courses. First, plain rice would be served on a fresh banana leaf, on the edge of which different side dishes were placed. Then the main sauce or gravy was put on top of the plain rice. This sauce was called *caambaar*, a water-based lentil and vegetable curry, which could be prepared with many different varieties of vegetables and thus existed in many variations. After this first course, *racam*, a watery pepper sauce, would be poured on top of a second serving of rice. Then *moor* (buttermilk) was consumed with another serving of rice. Afterwards, a sweet desert made of rice-noodles called *paillacam* was served.

afterwards. Rice was used here, because of its good taste and nourishing qualities (see Chapter 7).

The social unit that conducted the described life-stage rituals was the family (*kuḍumbam*) or household (*viiḍu*). The family / household was, indeed, the unit in which most rituals were conducted. In what I call here the 'cultivation' of the family and household – which can be seen the most important task for a married Hindu couple, especially for the wife (compare Nagarajan 2007, 100-103) – rice was, again, enacted as (and valued for) embodying desired and auspicious qualities, as I illustrate in the following subsection.

Cultivating the Family / Household: Auspiciousness, Fertility, Growth, and Wealth

Since women were usually required to move into the house of their husband and his parents, the family / household most often consisted of the married couple, their children, and the husband's parents.[101] After marriage, much of the creative energy of both partners was channelled into the cultivation of the family and household, that is working towards increasing the well-being of the family and the wealth and socio-economic standing of the household. The cultivation of the family and household and the continuation of the (husband's) lineage could indeed be seen as the main goals of Hindu married life (Carman 1985, 114; Marriott 1976b, 194; Trawick Egnor 1978, 164-165).

Cultivating the family and household required the aid of – and thus good relations with – many important actors. Most importantly, from the parents' perspective, a wife had to be found for their son to start and run the new household and family, which was to be the continuation of the father's lineage. The wife would be responsible for preparing food for the household, being the embodiment of nourishment and care that fed and held the family together. According to Nagarajan (2007, 91), '[a Tamil Hindu] woman is considered to have the ability to keep her husband alive, and therein lies some of her power as the bearer and container of auspiciousness.' Considered another crucial auspicious quality of a wife was her presumed ability to bear children and thereby provide the necessary fertility to continue the husband's lineage (Trawick Egnor 1978, 164-165; Tingey 1993, 66-70). Trawick Egnor states that in India:

> 'A pregnant woman and a nursing mother are among the most auspicious of people. Conversely, a barren woman is scorned and shunned; even a woman able to bear only one child is subject to some censure, for it is a woman's purpose on earth to fulfil the ideas of motherhood. Children remain closely dependent upon their mothers for years, even after nursing has ceased. An example of this dependency is the hand-feeding mentioned above, which continues in many cases long after the child is physically able to feed himself [sic]' (1978, 164-165).

[101] If parents had more than one son, only one of their sons might stay in the parental household or the house might by amended or divided in order to house more than one family.

The importance of the household as a place of auspicious growth and for the continuation of the lineage was also reflected in rituals that were conducted when beginning to build a house (see Daniel 1984, 115-121) and when moving into a new house. When asked why paddy or banana stems were used in such rituals, some people explained that, like a grain of paddy or a banana tree, the family should multiply generation after generation.

When I asked interlocutors of both genders and from different castes about what the roles of men and women were, their answers were similar. They argued that the person mainly responsible for the proper development of the family, the feeding, raising, and educating of the children, and the maintenance of the household was the wife. Men were seen as mainly responsible for earning money and cultivating crops. While men would bring money and food into the household, it was thus mainly the woman's task to cultivate the family and household through her growth-inducing qualities of care, nourishment, and fertility.[102] This growing of the household was referred to by some people as Lakshmi – the Goddess of auspiciousness and wealth – coming into and residing in the house (cf. Nagarajan 2007, 101). As Nagarajan writes about female roles in Tamil Nadu:

> 'Indeed, the woman of the house if often referred to as the Lakshmi of the house. Like the goddess, the woman has the power to attract wealth and prosperity into the household and to prevent poverty from crossing the threshold' (Nagarajan 2007, 101).

The household's harvested paddy and rice (as well as purchased rice or ration rice) also constituted part of this wealth of a household, both as food reserves and as income through selling paddy. The rice stored in the house was called *viiṭṭu arici* (house rice) and – due to its qualities of multiplying and growing in abundance – also embodied the auspicious growth of the household as a whole. After each harvest, rituals were conducted to thank for the continuous flow of wealth through paddy into the household. After the *kuruvai* harvest, many farmer and agricultural labourer households tied the first one or three bushels of harvested paddy into a bundle that was then tied either to a temple or to the roof of the family's house. This way, the specific deity to whom the temple belonged was thanked, while sparrows and other small animals could eat from the paddy, thereby endowing the household with good karma (*puṇṇiyam*). Furthermore, a common practice for women was drawing *koolams* (drawings made of rice flour) on the ground in front of their houses every day at dawn as well as at dusk. A commonly given explanation was that the rice flour would feed small insects and other creatures. Feeding beings that needed care was *puṇṇiyam* (see Nagarajan 2011).[103] My interlocutors stated that children, paddy, money, or more generally the wealth (*vaacedi*) of the

[102] The household was so closely identified with married women that in local dialect '*en viiḍle*' meant both 'in my house' and 'my wife.'
[103] Another prominent way of receiving good karma was to pay for or donate food for devotees or the needy at temples.

household should grow or multiply. Some also referred to paddy or money **as** Lakshmi.[104] Other important qualities that were supposed to grow were the success of both husband and children, mainly in business, and the proper education of the children, both in terms of knowledge and manners. The growth of these qualities was also important for the social standing and reputation of the family or household within their street and larger caste community and in the village. As can be seen, in relation to the family and household, paddy and rice also embodied auspicious and desired qualities, such as nourishment, multiplication, and wealth, and were seen as an important part of a household's wealth. They were, furthermore, offered to deities in order to thank them and offered to small creatures to receive good karma (*puṇṇiyam*) for the family and household.

Among the family members, women were particularly associated with several auspicious and desired embodied qualities that were considered essential for the cultivation of the family. These important qualities were highlighted and emphasised in life stage rituals preparing women for marriage, such as, for example, the puberty ceremony or the wedding itself.[105] As I will According to Petitet and Vellore,

> '[p]uberty, engagement and marriage rites, as well as ceremonies involving the burying of the placenta have a single objective in South India: the future procreative power of the female body. The ascertainment of infertility is experienced as a failure of the couple and of the entire social group around the spouses because, in the Indian context, the birth of a child is accompanied by an improvement of the social status, prosperity and power of the familial group. Consequently, procreation is an obligation that extends beyond that of the spouses' (Petitet/Vellore 2007, 2-3).

Female, Hindu children in Tamil Nadu are subjected to a puberty ceremony (*caḍaṅgu*) after they menstruate for the first time (Kapadia 1995, 92-93). Muruganandam and I attended a puberty ceremony conducted by a Pallar family in front of their house, which was led by a Chakkiliyar ritual specialist from a neighbouring village. This specialist put white pads made of raw rice flour on the girl's head and shoulders to then flick them off her using a small wooden stick. He did so three times. After that, three married women (*cumaṅgali*) held on to one plate which they held over her head, while the ritual specialist poured turmeric water on the plate. They threw the water away to the right, left, and backside of the girl. The specialist then took a plate filled with paddy and touched the girl's head, shoulders, hands, and feet with it three times each. He repeated the same motion with a plate filled with parboiled rice and a coconut

[104] Some more orthodox people referred to the eight different manifestations of Lakshmi (*coll. leḍṣmi or laḍcumi*), all of which had to grow in a household or family, the most important of which in the village context were *daanṉiyalaḍcumi*, the Lakshmi of food grains, *danalaḍcumi*, the Lakshmi of money, and *candaaṉalaḍcumi*, the Lakshmi of children.

[105] While I visited two weddings and also conducted in-depth interviews about the use of paddy and rice in the wedding rituals, describing these here would consume excessive space. See Good (1991) for detailed descriptions of marriage rites in Tamil Nadu and Sri Lanka and Srinivas ([1952] 2003) for a detailed description of wedding practices among the South Indian caste of the Coorgs.

on top, and then with a plate containing a betel leaf with incinerated camphor on top. He spilled the contents of the last plate outside of the festive pavilion that had been created for this ceremony.

In a subsequent interview, the ritual specialist explained that the pads of raw rice were used to make sure that the girl would not be affected by any astrological problems or misfortunes (*dooṣam*) or illness and was protected from the influence of bad souls or spirits (see Kapadia 1995, 101). The circulating and spilling of the turmeric water served the same purpose, the intention being that any potential evil or harm should be averted. He went on to explain the use of paddy in the ritual by stating that the girl should grow and become a mother, just like paddy seeds grew and became mothers themselves. He said that 'paddy is like a mother for us' and that from paddy came rice (meaning that paddy provided new rice for eating after every cultivation season). Just like rice, he said, the girl should be useful without spoiling (*viina akaamai*), for example by preparing food and feeding people; hence the parboiled rice, which was also the kind of rice commonly consumed by the members of this caste. The coconut, he explained, was used in order for the girl to receive Shiva's blessings.[106] Furthermore, like paddy, a coconut would also grow into a tree and become a mother to more coconuts. The betel leaf and camphor were employed as a sign of respect and worship towards the deities and also to ward off the evil eye and misfortune (*dooṣam*), which is why they were spilled outside of the pavilion. In the puberty ceremony, paddy and rice were thus enacted as embodying auspicious and desired qualities desired for married women, such as the capacities to procreate, nourish and grow the family, guarantee the auspiciousness and well-being of the family, and be 'useful without spoiling.' Similarly, at weddings, the married couple would be blessed with *manjal arici*, raw rice mixed with turmeric, which was thrown at them by the guests (*fig. 7*). According to several interlocutors, turmeric rice had been introduced in the past to replace paddy for blessings, since the former was soft and could not, for example, harm participants' eyes or scratch their skin. Before that, they argued, paddy had been used for blessings. When asked why turmeric rice was used for blessings, several people told me that like one grain of paddy multiplied into 100 grains, the family should multiply and grow. Furthermore, in the rituals accompanying the wedding ceremony, the continuous presence of paddy and rice in the household itself was also highlighted as a desired auspicious quality.

[106] Coconuts have three 'eyes' and are thus used as representations of Shiva, who has three eyes.

Fig. 7. Rice mixed with turmeric powder (*manjal arici*) used for ritual blessings.

As can be seen, paddy and rice were enacted here as embodying several desired and auspicious qualities that were sought after in a wife, daughter-in-law, and mother or in a family/household. The growth-inducing qualities of mothers, in general, were prominently celebrated, emphasised, and ritually enacted by my interlocutors. As places of the cultivation of auspicious growth, both agricultural fields and households were not to be entered with shoes. Motherly qualities were considered divine, so that female animals, for example, were not allowed to be sacrificed. As can be seen here, gendered roles and desired qualities of women (and men as part of the family to be cultivated, nourished, and cared for) were enacted in relation to paddy and rice, which embodied similar desired qualities, in rituals concerning the life stages of women and the cultivation of the family and household. As shall be described in the next section, rice was also very important when it came to maintaining relationships that were considered crucial for the well-being of a family.

Maintaining Important Relationships: Feeding, Caring, and Paying Respect

One of the most important and most common ways of expressing care among my interlocutors was through giving food to, or through actively feeding, someone or something. Preparing and feeding or offering food was not just essential for expressing love and care towards children

or husbands. Caring for other beings, whether they were deities, ancestors, one's husband or children, attached labourers, crops, small insects, or any other socially relevant being, was considered of primary importance for treating them properly, maintaining good relationships with them, and/or receiving blessings or good karma. The nourishing qualities of rice were thus not just used to feed individual humans. At every ritual event, rice-based food was served to the deities, ancestors, guests and relatives, as well as the different animals taking part in the event. Throughout the year, families – as well as individual persons – carried out and took part in many ritual and other festive events. On almost all these occasions, serving rice meals or other rice-based foods to the actors involved was considered to be of great importance. To thrive, a family needed the blessings of deities and ancestors as well as the material support – and future marriage partners for their children – provided by certain groups of relatives. The offering of rice-based foods to deities, ancestors, and other actors in rituals – and to important relatives on festive occasions – was thus considered crucial for the growth and well-being of a family.

Deities, Ancestors, and Loved Ones: Food and Ritual Blessings

Feeding and caring were important components of all pujas conducted for different deities or ancestors. There were pujas that marked the beginning of an activity, such as the beginning of a new business year, a new cultivation season, the beginning of a journey, the first time a child was sent to school, and so on. These were usually conducted to ask for blessings for the success of the undertaking in question and to prevent bad things from happening.

Secondly, there were pujas that were to be conducted regularly at fixed times, for example each month or year. The dates of the pujas were fixed according to the Tamil calendar. During *aaḍi perukku* ('*aaḍi* flood'), which was celebrated every year on the 18th day of the month *aaḍi* (mid-July to mid-August), the river Kaveri was worshipped as Kaveriyamman (Kaveri Mother). These pujas were usually conducted to honour particular deities and entailed asking for the well-being and protection of the social unit on whose behalf they were carried out; this was mostly the family or household and most of these pujas were thus conducted separately by each household or family. Whenever I asked my interlocutors why they performed a ritual of this category or took part in one, the almost inevitable answer was that the social unit in question should be well and auspicious (*nallaa irukkanum*). As stated previously, there were also pujas that were conducted at certain stages in the life of each human being. These were usually carried out mainly for the well-being, development, and protection of the individual in question or their future family, as described previously. Lastly, individual people or families might carry out individual pujas for a particular problem to be solved, or an illness, misfortune, or affliction to be cured or removed.

At almost all these pujas, the deities or ancestors worshipped were offered rice-based foods along with other food stuffs and potentially other cherished or necessary items from everyday life, such as clothing, bangles, and so on. Furthermore, at each of these pujas, ritual food offerings were offered to and were blessed by the deities worshipped and afterwards distributed to the humans attending the ritual. The same was true for pujas in which ancestors or other deceased family members were worshipped. The food offered to the worshipped was of the greatest importance. It was the main offering to these actors, while at the same time often also being the main item through which the human attendants of these rituals ingested the worshipped actors' divine grace (see Pinkney 2008, 6) and thus the blessings they needed for the well-being of their family or the success of an undertaking. Whenever I asked my interlocutors how they carried out a certain puja, they therefore first described which foods they offered to the deities, ancestors, or deceased family members and how they prepared them.[107]

According to my interlocutors, deities needed to eat and be taken care of, just like humans.[108] In fact, some people compared deities to children, stating that since they were not able to feed, wash, or dress themselves, they needed to be taken care of. Through different physical acts of care and devotion, most importantly through serving rice-based foods, deities were enacted as social beings that needed to be cared for and gave vital blessings in return.[109]

While deities were fed and cared for, the same was true for the ancestors and deceased members of a family. The ancestors of men whose parents had both passed away were ritually remembered and paid respect in the house once a month during new moon (*amaavaasyai*). Again, this relationship was enacted and expressed mainly through the act of feeding, since, as part of the ritual, a rice meal was prepared for the ancestors and fed to crows who were designated to eat the food on the ancestors' behalf. While the ancestors who were served food on these occasions could be both particular deceased members of the household and non-particular ancestors from several generations ago, there were also pujas conducted for specific deceased members of the household, such as particular parents, siblings, or children. Different families would conduct pujas for individual deceased family members on different occasions. Furthermore, an elaborate puja for deceased household members was conducted during *vaacal poṅgal* ('veranda *poṅgal*'), which fell on the second day of the proceedings of the thanksgiving festival *poṅgal.*[110] An older female interlocutor told

[107] Such descriptions were often extended to naming the other items offered to the deities or ancestors.
[108] When I asked a Padaiyacci priest why deities were offered ritual food offerings (*naiveettiyam*), he explained that, like us humans, a deity was a living being. A deity would do for us what we could not do ourselves. For doing that, a deity would need power (*cakti*).
[109] Rice-based foods were also offered to deities in the temples in and around Kaveripuram, both by devotees with specific motivations and by priests as part of the routine of caring for the deities.
[110] This puja fell on the day of *maaṭṭu poṅgal* ('cow poṅgal'), which is the second day of the *poṅgal* festivities. On *maaṭṭu poṅgal*, all households in Kaveripuram that owned cows or bulls would wash them, worship them, and feed them *poṅgal*. Since the puja conducted for the cows was vegetarian but the

me that she usually conducted the *vaacal poṅgal* puja at noon. She stated that it was believed that the deceased members of the household would come to the house that day and explained that she would offer them all the items that they desired (and that they had desired while being alive) – including tasty rice dishes such as meat curry, fish curry, and *poṅgal*, new clothes, and sweets and snacks – and then worship them. In this example, again, offering rice-based foods along with other desired items to the deceased is a primary means of expressing care and love. Lost loved ones were enacted as beloved and respected persons through preparing and offering them all their favourite foods. Rice, being the staple food and embodying nourishment, usually featured prominently on such occasions.

However, deities, ancestors, and other worshipped actors not only needed to be shown care and affection, but they also had to be shown respect by observing certain taboos and rules regarding ritual purity. Preceding pujas in the household, for example, often the whole house needed to be cleaned with water and with frankincense (*sambiraani*). The person to carry out the puja and the worshippers had to take a bath and wear fresh clothes for the occasion, as had the person or persons preparing the food. Both men and women had to cover their legs and other shame areas, meaning that, for example, men could not wear their dhoti (*veeṣṭi*) folded to half length, during the puja. The food itself had to be absolutely unpolluted in order to be expressive of respect. All ingredients needed to be fresh. The food could not be tasted during its preparation – since saliva would pollute it – and thus usually remained unsalted. Naturally, the ritual food could only be consumed by humans after the worshipped actors had received their share first.[111]

While caring for and showing devotion and respect to deities, ancestors, and deceased loved ones were very important for receiving blessings and remaining in touch with beloved family members, offering food to living relatives was also of crucial importance for the well-being of individuals and families as well as for the marriage prospects of their children.

Important Relatives: Support and Respect

My interlocutors, in accordance with what Kapadia (1995, 13-17) has shown, mainly distinguished two types of relatives. Firstly, there were the members of the patrilineage, that is those persons with whom an individual was directly related through their father, their father's

puja for the deceased household members was non-vegetarian, those who possessed cows would perform the latter in the evening after finishing *maaṭṭu poṅgal*, whereas those who did not have cows could also do it earlier. Unfortunately, I did not ask my Brahmin (and thus also vegetarian) interlocutors about whether or how they celebrated *vaacal poṅgal*.

[111] In preparation for certain pilgrimages or pujas, my interlocutors engaged in one or several days or in some cases even weeks of ritual fasting (*viradam*), which would be carried out according to different rules or degrees. During a common form of *viradam*, for example, people were forbidden to consume rice meals other than a vegetarian noon meal and were further not allowed to consume previously cooked or *aacaivam* (non-vegetarian) foods, such as eggs, meat, and fish, or engage in sexual activities. They further had to offer rice to the crows before eating their noon meal every day during the fasting period (see Münster 2007, 158-159).

father, their father's father's father, and so on. Since inheritance was passed down mostly to the male members of the patrilineage (land, for example, was only passed down from men to men) and they thus shared the assets of a household, these relatives (including the women) were called 'sharers' (*paṅgaaḷigal*; singular: *paṅgaaḷi*; Kapadia 1995, 16-17). The other group of relatives were those with whom an individual was related through women (for instance the mother's brother, the father's sister's children, or the sister's children) or who were women and did not share a male ancestor in the first generation of agnates (like the father's sister or the grandfather's sister; see Kapadia 1995, 16-17). These relatives were called *uṟavu muṟai* (often pronounced *uṟamuṟai*), which could roughly be translated as 'those designated for relationships.' These latter relatives are also called 'affinal' relatives in the scholarly literature on Tamil or 'Dravidian' kinship (see Dumont 1986, 1983, 1953; Kapadia 1995; Trautmann 1979; 1981), since the legitimate marriage partners of a person are drawn from this group, a woman ideally marrying her mother's brother's son, her mother's brother, or her father's sister's son and a man preferably marrying his father's sister's or mother's brother's daughter (Kapadia 1995, 16-18). Among the Paraiyar, Pallar, and Muppanar castes in Kaveripuram, the mother's brother's children or the mother's brother himself were the preferred marriage partners, although there was a trend towards preferring other partners belonging to the same caste or subcaste, if they were socio-economically in a better position than the mother's brothers or their children, as Kapadia already described for her interlocutors in the 1990s (Kapadia 1993; 1995, 18, 21, 46-47).[112]

Indeed, the mother's brother (*taai maamaa*) and his wife (*aṭṭai*) were probably the single most important couple of relatives for a child, apart from the child's own parents. The *taai maamaa* was expected to cover most or almost all the expenses for the ritual items necessary for his sister's children's life stage rituals and to present gifts to his sister's family on these occasions (see Kapadia 1995, 21-23). On such ritual occasions, it was thus important for a household to show the *taai maamaa* the utmost respect and gratitude. My interlocutors also reported that the *taai maamaa* and other affinal relatives were responsible for providing the family with the necessary ritual and subsistence items in case of the death of a family member. Furthermore, the maternal uncle is obligated to offer help and support to his sister's family when needed. In return, a maternal uncle and his sons are the preferred marriage partners for his sisters' daughters (Kapadia 1995, 20-21).[113] The affinal relatives are in many regards more important for a family than the patrilineal relatives, who are neither the prime providers of material support nor constitute a pool from which to draw marriage partners

[112] Unfortunately, I did not ask the Brahmins and members of other small caste groups in the village about their marriage preferences. It has been shown that in Tamil Nadu there are important differences in kinship relations and status as well as marriage preferences between Brahmins on the one hand and non-Brahmins and Dalits on the other (Gough 1956; Kapadia 1995, ch. 2).

[113] Indeed, maternal uncles who fulfilled their duties towards their sisters' children well had reportedly been able to claim their sisters' daughters for their sons or themselves in the past.

(Kapadia 1995, 20-29). Treating maternal uncles and other affinal relatives well and showing them the utmost respect was therefore very important for my interlocutors. Serving food to guests was one of the most important ways of showing them respect (*mariyaadai*, see Chapter 7), as was accepting the food offered to show respect to the host. At ritual and festive occasions, the maternal uncle and his wife, along with other maternal relatives, were thus usually called to eat first. The patrilineal relatives, of course, also had to be served food and treated respectfully.

After a woman's marriage, the most important relatives for her new family now became her own parents and brothers, as they were expected to provide different kinds of support to her and her new household and her brothers would become the maternal uncles who provided the expenses and ritual items as well as expensive gifts for her children's life stage rituals. For the three most important calendric rituals and festive events throughout the year – namely *aaḍi perukku*,[114] Diwali,[115] and the harvesting festival *tai poṅgal* – a woman's parents had to send the puja ingredients as well as other gifts to their daughters' family every year. These ritual gifts were also called *ciir*, or, as one farmer specified, *piṟanda viiḍu ciir* ('*ciir* from the house of birth;' see Kapadia 1995, 21-23). The *ciirs* in the first year of the daughter's marriage were especially important and thus had to be more elaborate and generous.[116] The parents had to contribute to the auspiciousness and well-being of their daughter's new family and their daughter. Bringing rice and other ritual items to the in-laws for the three biggest ritual occasions of the year, *aaḍi perukku*, Diwali, and *poṅgal* was thus an important obligation and necessary to show respect to the in-laws and conversely be respected by the latter.

Furthermore, in case of a death, the different affinal families, but most importantly the bride's original family, were reportedly supposed to immediately visit the family of the deceased and bring them many important items. These included items required for rituals,

[114] During *aaḍi perukku* ('*aaḍi* flood'), which is conducted on the 18th of *aaḍi* (a day in early August), Kaveri River is worshipped as Mother Kaveri (*kaaveriyamman*). Newly married couples conduct an important puja on this day, which is why it is very important for the bride's parents to provide the puja ingredients.

[115] Diwali, the festival of light, is celebrated by Hindus across India every year in October or November.

[116] For Diwali, the *ciir* reportedly included one or three (or another uneven number of) *marakka* of par-boiled rice, according to the wealth of the family. One *marakka* equals approximately 3.2kg of rice. The *ciir* could further include semolina, wheat flour, sesame and palm oil, different kinds of lentils, black gram, bananas, goa fruits, apples, grapes, oranges, *sambiraani* (frankincense from benzoin resin) for ritually purifying the house, camphor, vermilion powder, different flowers, sugar, betel leaves and areca nuts for showing respect, as well as beauty products like soap, shampoo, or toothpaste, according to the wealth of the family. Most importantly, new, fine, and expensive clothing had to be presented to the wedded couple and their children, and the ingredients for rice-based sweets to be made by the daughter's family for Diwali, such as *murukku* and *adiracam*, had to be provided. Some families told us that they had started giving money in advance instead of clothes in recent years, so that the children could pick their own clothes. Regardless of whether money or clothes were given, some amount of cash (like 200 to 1000 rupees or more) would always be included in the *ciir*. The *ciir* was usually given five or seven days in advance, that is on an uneven number of days before Diwali, as uneven numbers were deemed auspicious.

food items necessary for the sustenance of the household, and other items needed during the grievance period.[117]

A daughter's parents also supported the family of their daughter whenever the latter needed something. Furthermore, among the Paraiyar and Pallar castes it was reportedly customary to always bring food ingredients when visiting the daughter's new house. The bond between mother and daughter was described as a very strong love relationship that involved support for the daughter whenever needed. This close relationship was also expressed through food. Bringing food items, especially rice, to the daughter's house when visiting was a matter of self-respect for families, especially for the mothers of the married daughters. Furthermore, not coming empty-handed to the daughter's house was important for showing respect to the in-laws and for ensuring that the daughter was treated well. A mother from the Pallar Street explained that, when they visited their daughter's family, they always had to take some of their 'house rice' with them, so that their daughter could prepare it. She stated that they could not eat the 'house rice' of their daughter's family. Even if they did not have rice at home, she said, they would have to bring rice with them and provide the impression that there was rice in their house.

As can be seen, serving rice-based foods was one of the main ways of expressing care and respect and thus of maintaining important relationships with valued actors, such as deities, ancestors, deceased loved ones, affinal relatives, or, after marriage, one's daughter or sister and her children.

Conclusion

As I have shown in this chapter, my interlocutors treated and perceived paddy and rice as essential parts of the most basic and most important processes in life, such as bodily development and sustenance and the cultivation of the family and household, by virtue of various qualities that paddy and rice embodied. Rice was considered the main source of nutritious essence (*cattu*) or strength, allowing people to physically develop properly, to remain healthy, and to maintain the strength to perform physical or mental work. Due to its nourishing qualities and its taste, serving rice dishes was further essential for securing the cooperation and goodwill of deities, ancestors, and other providers of blessings. Since rice served as the main ingredient in most ritual food offerings, it was also one of the main items through which worshipped beings were given care and shown devotion and respect and through which my interlocutors ingested the divine grace and auspicious blessings of the beings they

[117] Rice was also an important part of death rituals among Hindus in Kaveripuram, which, unfortunately, I cannot describe here due to lack of space. Importantly, uncooked rice grains were put in the mouth or on the forehead of the deceased person by the family member who was to light the funeral pyre as well as by other relatives, who did so one after the other, before the cremation took place. This rice was called *vaaykku arici* (rice for the mouth). Thus, rice also marked the end of a person's physical life, as the deceased person would not eat food with their physical body anymore after this.

worshipped. Indeed, feeding someone or something expressed love, affection, and respect as well as physical connection through transmitted substance (Marriott 1976a; Trawick Egnor 1978, 164-165). Embodying good growth, fertility, multiplication, nourishment, and wealth, paddy and rice were considered highly auspicious and important items. Their auspicious presence was required in every household as well as in rituals and ceremonies. They were further important for physically transmitting certain qualities or blessings between actors and entities.

As I have shown, my interlocutors perceived and enacted the qualities of paddy and rice as physical and relational, that is as embodied qualities, and as the result of the enmeshment of the paddy plants' inherent capacities with different substances from the social-ecological system of which they were a part as well as with the auspicious agency of cosmological actors. This enmeshment used to be much more circular and comprehensive before the Green Revolution (see Chapters 1 and 2), given that the cows and oxen ate paddy straw and then produced manure that was used to feed the soil which fed the paddy. The latter, in turn, was ingested by humans and the beings they worshipped or fed, including the humans' relatives, but also deities, ancestors, the sun, Mother Earth, Mother Kaveri, and other important actors. The worshipped beings, in turn, blessed the humans and their undertakings through the ritual offerings (*prasaadam*) consumed by the latter (see Apffel-Marglin 1987, 32-33, on the cyclical foodchain she describes based on her study in rural Odisha). Most village residents no longer consumed rice from the local fields and cow dung was no longer used to fertilise the paddy. Nevertheless, my interlocutors enacted and perceived paddy and rice, their own bodies, their families and households, the beings they worshipped and fed, and all other actors and entities with whom they engaged in social relations (the nine planets, for example, were also worshipped in certain pujas) as part of a meshwork constituted of inter-mixing substances (Daniel 1984; Ingold 2011; Marriott 1976a). The qualities of the paddy, as well as those of other actors, were thus not seen as inherent and stable, but as constituted and influenced at least in part by their enmeshment with other entities and influences. Auspiciousness, nourishment, growth, fertility, health, and other qualities were perceived as embodied and relational qualities, that is as physical qualities that were to some extent a product of enmeshment and could be transferred through substances and influenced by blessings or planetary constellations.

In their physical engagement with paddy and rice, my interlocutors not only experienced the embodied qualities of the former, but also their own embodied qualities and roles as growing and physically active living beings, as care-providers and care-receivers, or as women, men, mothers, fathers, mother's brothers, wives, husbands, in-laws, or children. They further enacted other actors and entities as social actors, such as deities, ancestors, deceased family members, the sun, Kaveri River, the soil, the paddy saplings, birds, small

insects, and many more, and also enacted themselves as devoted, grateful, and caring worshippers, loving and affectionate family members, or providers of nourishment and care in relation to them. Fundamental gender roles, aspects of personhood, and relationships with others were thus enacted as part of a meshwork in which paddy and rice, among other items, played major roles as nutritional, social, religious, economic, and ecological resources and were enacted as enmeshed with other actors, entities, and substances (see Chapter 1; Bartelheim et al. 2015). From now on, I refer to the places and relations within which the meshwork or 'substance-code' way of perceiving and relating described in this chapter (see Marriott 1976a; Daniel 1984; Chapter 1) was practiced, as the 'paddy meshwork.' Within this meshwork, paddy and rice, as the main staple food and a major connecting element – and transmitter of qualities – between various actors and entities engaging in relationships of caring, blessing, and feeding with one another, were prominently enacted as guaranteeing and embodying the cultivation and continuity of life.

Chapter 4: Networks and Alienation: Enacting Rice as a Commodity

As illustrated in Chapter 1, almost the entire paddy harvested in Kaveripuram was sold off to the government-operated TNCSC or to private merchants. Once harvested, the paddy thus had to be turned from a plant that was cultivated into a commodity. In this chapter, firstly, I show how paddy was enacted as a commodity and alienated from its human producers and from the social and ecological relations of its production. I also demonstrate how this alienation occurred through the paddy's integration into various networks of actors and actants from outside the village that intervened in its cultivation and selling. Indeed, I argue that paddy was enacted as a commodity in particular networks that were locally represented by human actors – such as TNCSC employees – and various actants. These networks spanned large distances and included the remote buyer institutions, such as private merchants and rice mills or the TNCSC and PDS. In the interaction of these actors and actants with the farmers and their paddy, the latter was converted from an enmeshed being into a commodity defined by its monetary – and thus disembodied – value and thereby alienated from the farmers and the social-ecological relations of its production.

This alienation of the paddy, I argue, was achieved in part through assessment practices (Tsing 2013) carried out by the buyers of the paddy. These involved the translation of the paddy's embodied qualities, which were constituted by its enmeshment in the paddy meshwork, into disembodied properties that were expressed in numbers. These disembodied properties included the paddy‘s quantity as expressed in kg and its quality as expressed in different percentages. Based on these properties, the paddy's monetary value, itself a disembodied property, was enacted. These disembodied properties were abstract, unchanging, and detached from their producers and relations of production. They were thus also disembedded.

Furthermore, I describe how, due to the intensification, mechanisation, and commercialisation of agriculture (as illustrated in Chapter 1), farmers were forced to purchase seeds and agro-chemical inputs produced elsewhere as well as services, such as machine harvesting or the provision with additional irrigation, through broker networks. They thus had to rely on – and pay (for) – external actors and their products and the other actants related to them throughout the cultivation process. I argue that farmers were thus already partially alienated from their paddy during the cultivation itself, having to treat it as a business venture involving broker networks and money to be paid at every step and having to treat paddy as an object of investment and calculation throughout the cultivation process.

Since farmers produced for the market and had to purchase goods and services through the market to cultivate paddy, they were subjected to obscure market forces involving producers, distributors, and consumers they did not know. Accordingly, I illustrate how farmers had to make their cultivation choices by negotiating between the disembedded demands of

buyer networks involving remote institutions, corporations, and consumers, who determined the prices and quality standards, on the one hand, and the social-ecological conditions in the paddy meshwork, in which their cultivation of paddy was embedded and on which their ability to meet the former's quality criteria depended, on the other.

I begin this chapter by briefly outlining the concept of 'alienation assessment' as introduced by Tsing (2013). After that, I describe how the quantity and quality of harvested paddy grains were assessed and talked about by village residents in the paddy meshwork by referring to embodied qualities of the paddy and contrast this with how paddy was enacted as a commodity through the translation of its embodied qualities into disembodied properties in networks constituted by the demands and rules of the actors and institutions purchasing the paddy. Finally, I consider how the social and ecological processes involved in the cultivation of paddy were themselves deeply penetrated by market relations, since the cultivation required the purchasing of services and goods through brokers and farmers had to treat the paddy they cultivated as a commodity.

Alienation and Abstraction

According to Tsing, capitalism is not a 'self-enclosed system,' but can only exist by continuously drawing humans – and other beings and things – from outside into its grip. She argues that:

> '... capitalism is unable to create most of the skills, relations, and resources it needs to function. Capitalist accumulation depends on converting stuff created in varied ways, including photosynthesis and animal metabolism, into capitalist commodities. Capitalist commodities thus come into value by using—and obviating—non-capitalist social relations, human and non-human' (Tsing 2013, 21).

Tsing states that to become commodities, things need to be '... disengaged from their makers and at the mercy of market transactions. Things are exchanged for things, and once exchanged, the exchange, and the steps that led to it, can be forgotten; the commodity is available for use or further transactions' (2013, 22). In other words, things need to be alienated from their human producers as well as from the meshworks in which they are produced in order to become commodities (see Marx [1844] 1959, in Tsing 2013, 24).

While alienation in Marx's analysis, when defined as the separation of workers from the products of their labour, is mainly created through the disciplining of labourers and natural resources in factories or plantations (Marx [1844] 1959, in Tsing 2013, 24; see Chapter 1), this was not the case with rice in this research, given that farmers were not employed by – or in any other way engaged in a contractual, submissive relationship with – the governmental TNCSC or the private rice mills which bought the paddy. When facing such independent producers, Tsing argues, 'capitalists' focus on controlling supply chains, rather than the

producers of the goods. In such 'supply chain capitalism,' the alienation of commodities is primarily achieved by rationalising and disciplining 'inventory' rather than human labour or natural resources (Tsing 2013, 24-25). Assessment practices are thus of critical importance. According to Tsing (2013, 23-24), it is through assessment that the things purchased can be turned into commodities in a particular 'translation' process. Tsing proposes that such 'alienation assessment' '... privatizes and commodifies by interposing a process that is self-consciously blind to constitutive social relations' (Tsing 2013, 24).

In the following section, I describe how the paddy sold by farmers was enacted as a commodity through such 'alienation assessment.' The TNCSC is not a capitalist institution, but a state institution that does not operate in order maximise profit. However, as I will demonstrate, similar dynamics of alienation were at work when paddy was sold to the TNCSC, too.

Enacting Prices through Disembodying Paddy

Farmers sold their paddy either to the Direct Purchase Centre of the government-operated TNCSC or to private merchants acting as middle-men between the farmers and large private rice mills that bought and processed the paddy. To be sold, the paddy needed to be converted into a commodity with a specific monetary value. For this monetary value to be determined, the price, quantity, and quality of the paddy had to be enacted.

Enacting Prices in Networks

The nearest Direct Purchase Centre, colloquially called 'TNC,' was run by three government officers, the bill clerk (BC), the bill clerk helper (BC helper), and a watchman, who were recruited from different places in the vicinity and rotated across different Direct Purchase Centres every cultivation season. Furthermore, more than 10 agricultural labourers recruited from Kaveripuram and other local villages worked at the TNC permanently as loadmen. The officers were responsible for administrative tasks and the accounting of the paddy purchased, while the loadmen's tasks were the cleaning, weighing, bagging, and loading of the paddy. There were always several loadmen working simultaneously. In front of the TNC godown,[118] in which the paddy was stored, was a large concrete threshing floor. On this threshing floor, all operations concerning the purchased paddy were conducted. From the TNC, the paddy was brought to rice mills for processing. According to a TNCSC officer, these could be either government rice mills or private rice mills, who processed the paddy for the TNCSC.

[118] A 'godown' is a storage house (Sinha 2017, 316). My interlocutors used this term to refer to the TNC and similar facilities.

The prices paid for paddy by the TNCSC are determined by both the National and the State Government. Each year, the Government of India fixes a Minimum Support Price[119] (MSP) that is to be paid to farmers selling their paddy to the Food Corporation of India. The MSP for paddy consists of two rates, paddy varieties considered 'Grade A' achieve slightly higher rates than 'common' varieties. Farmers are paid according to one of these two standard rates, depending on the category in which the paddy variety they have cultivated is placed. In Tamil Nadu, the MSP farmers receive for selling different varieties of paddy to Direct Purchase Centres is announced each year by the State Government after it has raised the MSP announced by the Central Government by an additional amount to add an extra 'incentive.'[120]

In the TNC godown, a large official poster attached to the wall specified the prices for the two paddy categories as well as several regulations that existed in relation to them. On a handwritten sheet of paper, also on the wall, the TNC staff had summarized this information. The sheet indicated which locally cultivated varieties would be bought at what price, listing the prices for the Grade A and common categories and indicating which of the commonly cultivated varieties fell under which category. As can be seen, farmers interacted with the TNCSC through brokers, in this case the local TNC staff. The TNC staff bought the paddy on behalf of the government while at the same time putting the government's directives regarding the prices (and other criteria) into practice. Accordingly, neither the local farmers nor the local TNC staff had any influence on the prices, which were set by the National and State Governments. The prices were thus disembedded from local circumstances and relations.[121]

Alternatively, paddy could be sold to private merchants who acted as brokers between farmers and private rice mills. While the TNC only distinguished two different categories of paddy and paid the same amount for all the varieties grouped under one category, private agents offered separate rates for individual paddy varieties. These rates were based on supply and demand and negotiated between rice mills, brokers, and farmers. The price paid by private agents for the varieties most commonly sold to the TNC was usually slightly higher than that paid by the TNC, while some varieties that were considered fine varieties could be sold to private agents at much higher rates. They were more sought after by consumers and thus also by the rice mills to which the agents sold their paddy. There were several major regional

[119] MSPs are fixed by the Central Government of India, which bases its decision on recommendations made by the Commission for Agricultural Costs and Prices (CACP), the opinions expressed by the different state governments, and the 'overall demand and supply situation in the country' (Niti Aayog 2016, 13). In 2016, the MSP covered 24 major food and cash crops (ibid.).

[120] According to the TNCSC's official website [http://www.tncsc.tn.gov.in/html/proc.htm; last accessed on the 16.11.2016].

[121] Another sign of the disembeddedness of the MSPs from local circumstances and relations was that they were reportedly often announced too late, so that farmers had already made their cultivation choices and planted their crops before they got to know the MSPs. A study published in 2016 by the Niti Aayog similarly states that in the two districts in Tamil Nadu that were reviewed '... in 100% of the cases, MSP rates have been made known to the beneficiaries only after the commencement of their sowing activity' (2016, 43).

brokers or paddy 'agents' purchasing paddy within the area. Each of these agents covered many different villages and sold the paddy to large buyers, such as large rice mills in major cities. Within each village, there were one or several local brokers who facilitated communication between the farmers and these regional agents. One day I sat down with a local broker operating in Kaveripuram and he explained the brokering system to me from his perspective. Farmers in Kaveripuram would approach him shortly before their harvest. He would then call the regional brokers, tell them how much paddy of which variety he could offer and ask each of them for a rate. His job was to negotiate the best price for the farmers. He would also ask about when the payment for the paddy would be delivered, as this was of great importance for the farmers, who were often in dire straits towards the end of the cultivation season. Some agents would pay after two, some only after up to ten or fifteen days. Another important matter was the quantity of paddy to be transported at once. Some agents would not send a transport vehicle for less than a certain number of bags. In case only 20 or so bags were to be sold, he would call up the one agent who, as he put it, would even take one bag; that agent would then, for example, send a small TATA AC car for 20 bags. In exchange for his services, the local broker received a commission from the regional agents for each bag of paddy sold to them. After I had talked to him about how he brokered the paddy, he introduced me to one of the main paddy agents from the area, whom Raja and I then interviewed as well.

The paddy agent told us that he would purchase paddy from different villages within a radius of about 100km. When he was informed about a paddy harvest by one of the local brokers, he would call up big rice mills in major cities like Madurai, Chennai, and Salem or in towns like Namakkal, Attur, or Tindivanam to check whether they needed a supply of a certain variety and how much they would offer for it per bag. He would then negotiate the rate with the local broker. The difference between the two rates had to encompass his profit margin as well as the following costs. On top of the commission per bag for the local broker and the rent for the transport vehicles, he would have to pay his loadmen a rate for weighing and filling the bags and carrying them onto the vehicle and he had to buy the bags in which to fill the paddy. However, he would later sell the bags to the rice mills together with the paddy they contained.[122]

As is evident here, private paddy purchases equally involved brokering relationships. Farmers did not negotiate prices with the large rice mills directly. Transactions involved the brokerage of local and regional middlemen. Here, similar to the MSP, prices were mostly negotiated between actors and institutions operating outside of the local area, the local brokers having only marginal influence. The farmers, furthermore, were virtually dependent on the

[122] The brokerage system was to some extent based on trust. Farmers would trust the local brokers to negotiate the best rates on their behalf. They would further trust the local brokers to collect the money from the regional brokers, once the latter had received it from the rice mills to which they sold the paddy. Local brokers, on the other hand, had to trust the regional brokers to pay them the money on time.

brokers, due to a lack of any possibilities of storing their paddy safely[123] and because of the high number of competing paddy growers in the area. Regional brokers thus practically dictated the farm-gate prices. This was ever more so, since farmers were not organised and each of them negotiated prices individually.

In both the case of the TNCSC and that of private buyers, prices were enacted in networks consisting of different human actors, such as remote government officials in Delhi and Chennai, operators of private rice mills and companies, and regional agents, but also of local brokers and TNC staff, the latter having to implement the directions they received from the more remote actors when interacting with the farmers. I speak of networks here, because in the enactment of the prices, the enmeshment or the embodied qualities of the different actors and entities involved did not matter for farmers and other actors. What mattered was the fixing of the prices, which was the definitive outcome of the interaction between the humans involved and which was aided by different actants, such as various documents, the poster on the wall of the TNC building, or the mobile phones through which the brokers communicated. What mattered for the brokers, farmers, and TNC staff in relation to the enactment of prices – and what they thus perceived and emphasised – were not each other's embodied qualities or enmeshment, such as, for example, caste-related purity or pollution or the texture or colour of official documents, but the specific official functions of different actors and actants involved in the process and the information transmitted or generated by them. While prices were enacted in networks spanning vast distances, so, too, was the quantity of the paddy purchased.

Translating Volume into Weight

Most village residents used volume-based rods for measuring the quantity of paddy or rice in the paddy meshwork. The most important units were *marakka*, *muuṭṭai*, and *paḍi*. A *marakka* was a metal container that carried approximately 3.2kg of paddy when filled. It was the most commonly used unit to indicate smaller quantities of paddy.[124] 24 *marakka* equalled one bag (*muuṭṭai*) of paddy. Bags were the unit in which village residents measured the paddy they parboiled themselves, brought to rice mills for husking, and took back as rice for their own consumption (see Chapter 5). Paddy stored in the house was also quantified in terms of bags. The unit *paḍi* was also based on a container. The latter was, however, smaller than a *marakka*, looked more like a drinking cup, and was not frequently used in everyday life anymore. It was,

[123] For most farmers in Kaveripuram and the neighbouring villages, access to storage space was difficult, since the local TNC did not open its gates for paddy storage, and the space in front of the TNC that could potentially be used was not big enough for more than one or two farmers' harvested paddy grains. As a result, most farmers preferred selling their paddy at once on the day of the harvest.

[124] The wages paid for manual harvesting even at the time of this research were still paid entirely in paddy and their quantity would also be expressed in *marakka*. Nowadays the wage would be seven *marakka* per person per day. See Chapters 5 and 8.

however, very important at pujas that required a *paḍi* of paddy or rice to be shown to the deities. As can be seen, the quantity of paddy in the paddy meshwork was mainly measured and talked about in terms of volume, which constituted an embodied quality of the paddy that could easily be perceived by seeing when a measuring jar was full. When it was sold, however, the quantity of paddy was assessed differently.

At the TNC, the paddy harvested by farmers would usually arrive in bags that had been filled during the harvesting. Before the paddy was weighed, the paddy bags first had to be loaded onto the winnowing machine. One of the loadmen would stand on top of this machine, emptying the harvested paddy from the bags that the others lifted up to him into the machine. In the meantime, two loadmen would hold an empty bag underneath an opening of the machine to collect the winnowed paddy. Each full bag was then dragged onto a large electrical scale by another loadman, who weighed it and adjusted its weight by adding or removing paddy with a *marakka*. Excess paddy removed from the bags was stored in a separate bag standing next to the scale. The paddy from this bag was also used to supplement bags that were too light. The poster on the wall of the TNC building indicated that one paddy bag had to contain 40kg. The weight-adjusted bags would be taken away by another loadman who would stitch the bags shut using a large needle and a thread. The sealed bags were carried inside the storage hall and stapled there. The BC and BC helper registered all bags that were stored. They also performed the necessary quality checks on the paddy that was to be purchased. The purchased paddy bags were regularly transported elsewhere for storage and processing (see Chapter 5) via large lorries.

When paddy was sold to private agents, it was weighed using scales provided by the agent in question. Private agents usually also used the TNC's threshing floor for weighing, bagging, and loading the paddy they bought.[125] While a paddy bag at the TNC weighed 40kg, private merchants calculated in 62kg bags. In both cases, the physical amount of paddy, as it occurred in the meshwork with varying volume and moisture content, was frozen into exact amounts of kg that were no longer variable but fixed and that could now be converted into exact amounts of money to be paid. By defining them in terms of quantities of measured weight rather than observed volume, the paddy bags were therefore converted from occurring 'things' with relational qualities into existing 'objects' with fixed properties (see Knappett 2011, 45; Ingold 2011; see Chapter 1). While a bag in the paddy meshwork consisted of 24 *marakka* and thus occurred as an observable amount of volume, the exact weight that defined the paddy bags sold to the TNC or the private merchants was not observable but was enacted as an abstract number that could be read from the scale. The paddy bags were thus disembodied, since their occurrence as bags was no longer based on their actual qualities as perceived by

[125] Farmers selling their paddy to private merchants sometimes stored their paddy on the TNC's threshing floor overnight, securing it with plastic sheets against rain and wind.

the actors involved, but on numbers read from a scale calibrated elsewhere.[126] After having been weighed, the amount of paddy as indicated in bags was no longer represented by actual bags, but by numbers abstracted from the paddy meshwork. In the case of the TNC, these numbers were written into a notebook, in which the rice variety, the number of bags, and the money paid for each purchase were noted down next to the name of the farmer in question. Private merchants were not required to write down the number of bags directly during the purchase, but the same process of abstraction through weighing was at work there, too. A similar process of disembodiment occurred when the quality of the paddy was assessed.

Translating Qualities into Quantities

Within the paddy meshwork, my interlocutors relied on their skilled perception when checking the quality of harvested paddy grains. Husking grains by rubbing them between their hands and then investigating the state of the rice grains in their hand allowed them to determine such embodied qualities of the grains as their humidity,[127] as well as, for example, estimating the amount of foul, black grains, empty husks, or debris contained in the paddy. At the TNC godown, however, the quality was assessed differently.

The bill clerk and bill clerk assistant had not only to record the quantity and price of every single purchase but also the quality of the paddy purchased. In order to evaluate the quality of a specific paddy purchase at the TNC, a sample – preferably containing grains from several bags – had to be analysed according to specific criteria and the results had to be indicated in the notebook. Whenever the TNC staff purchased paddy, they thus had to create a sample by piercing small holes into several bags with a metallic 'needle' (*uuci*) and pouring the extracted grains into a plate.

A part of this sample had to be weighed using a mechanical scale until it matched the amount of 10 grams. This 10g sample was then stuffed into a small, round metal container and inserted into a machine which measured the humidity of the paddy. A lever on the machine

[126] In India, there were no standardised equivalents for weights and measures until the 1920s. Before the British introduction of standardised measurement rods, measurements were undertaken in units based on volume or body parts or other locally relevant indicators. This, of course, meant that such measurement units were only valid locally and, even if they had the same name, could differ in different locations and for different products (Banerjee 1999, 49-50). As Banerjee explains: 'The intrinsic value of a *standard* weight or measure of a particular article was different in different places and in different types of transactions. This was often reflected in the variations in prices in different places. […] Every village, almost certainly every taluk throughout India, had measures differing in some respects from every other' (ibid. 49, original italics). To illustrate the confusion arising from these differences for traders operating across larger markets, Banerjee produces a quote from a British chief trader in Madras: 'I never can tell what I am buying nor how I am selling. My agents inform me that rice is at so much the seer, while in another quarter it is double that price. I take advantage of the opportunity, invest largely, and expect great profits. When the transaction is closed, I find I have lost greatly. The seer in the first place was perhaps less than half the size of that in the other. No two villages have the same measures, and to ensure success, I should need an agent in every place, each with infinite opportunity for deception' (quoted by Gover 1865, 4, reproduced in Banerjee 1999, 49-50).

[127] A high amount of broken grains after husking indicated that the paddy was too wet.

was manually turned in order to tightly compress the sample in the machine and a few seconds after being turned on, the machine's display would show a double digit number – with an additional number behind the dot – indicating the sample's humidity (*iirappadam*). This number had to be 17 or lower. If higher, according to a TNC officer, the paddy had to be taken out and dried again before being accepted.

After determining the humidity, a second 10g sample was spread out on a small plate and all the grains and other elements included in this sample were individually sorted into different small piles representing different quality indicators to be measured. Each of these piles was to be recorded as a percentage of the overall weight of the 10g sample. There was one column in the notebook for each of the percentages representing the different quality criteria. The task of the officer was to identify and sort all grains and other elements contained in the sample by eye and then convert their quantities into the percentages to be indicated in the notebook. For this purpose, a magnifying glass and a calculator were at his disposal. The first of the indicators referred to organic and inorganic matter other than paddy, such as weeds, dust, or sand contained in the sample, the allowed maximum being 1% (100mg) for each of them. The next criterion addressed damaged or empty husks, the allowed maximum for which was 5% (500 mg), while the next one referred to the amount of unripe grains, which was not supposed to exceed 3%. The next criterion indicated the amount of grains from other paddy varieties contained in the sample, which could be up to 6%. Next to these indicators, there was another column in the notebook simply entitled 'quality' or 'grade' (*daram*). A TNCSC officer stated that, if all requirements were met, the paddy was granted the 'I' grade, while if one or more measures exceeded the limits, the paddy was considered as 'II' grade and had to be cleaned again and then brought back for renewed checking. At the TNC, the BC and BC helper thus had to translate the embodied qualities of the paddy as they occurred to them into fixed, disembodied properties indicated in percentages that could be compared universally.

While quality was turned into quantities at the TNC godown, private brokers undertook no such abstraction. The paddy agents would reportedly take a handful of paddy grains from the pile and husk them by rubbing them in their palms. If too many of the rice grains broke in the process, it meant that the paddy was too wet and of low quality. Similarly, many black grains, grains from other varieties, or too much debris in the sample also indicated low quality. However, the agents did not count the grains or make any efforts at measuring the grains' properties, such as their humidity, using a machine. They relied entirely on their practical experience. Indeed, when I asked the regional paddy agent mentioned earlier about how he assessed the quality of the grains, he answered that the quality could be inferred from crushing and briefly examining a handful of paddy and that, for example, he would not purchase paddy if there were too many black grains. When I asked him about how he assessed the humidity of the paddy without a machine, he similarly answered that he judged the humidity from taking

the paddy into his hand and inspecting it, explaining that he relied on his experience and that the humidity may thus turn out to be one percent lower or higher than he predicted.

While the agent trusted his own experience at judging the humidity of the paddy, he also did not need to measure the humidity as accurately as the TNCSC staff did. According to the agent, while every number above 17 was excessively humid, the rice mills to which he delivered the paddy possessed large containers for drying the paddy on-site and would not complain unless the humidity exceeded 19, in which case they might lower the rates by 10 or 20 rupees per bag. Private paddy agents reportedly did not clean the paddy before selling it to the rice mills, either, since the latter would clean it on their own. This tolerance, of course, allowed the paddy agents to be more relaxed about the quality of the paddy. Indeed, paddy agents even had a reputation among cultivators for being sloppy at judging the quality of the paddy. Several of my interlocutors jokingly told me that paddy agents would simply take a handful of paddy, crush it, and say: 'It's fine.'

Disembodying Paddy in Networks

As can be inferred from the previous descriptions, the purchasing efforts by the Indian and Tamil Nadu Governments through the TNCSC and of the private rice mills had created networks that connected these institutions with the paddy cultivated by farmers. In these networks, people from the region became actors by taking on functions as TNCSC officers or paddy agents, while cultivators and agricultural labourers from Kaveripuram and other local villages took on functions as local paddy brokers or TNC loadmen. Furthermore, in their communication, mobile phones and documents were also important actants, as were means of transport like two-wheelers for travelling or lorries for transporting the paddy. At the TNC, the paddy was enacted as a commodity with a particular, fixed quality and quantity – and thus a defined monetary value – in the interplay of the BC and his helper, the loadmen, the sampled paddy, the scales and machines, the notebook and pen, the sampling needle and plate, the magnifying glass and calculator, the paddy bags, the threshing floor and storage hall, the poster on the wall that listed the prices, and many other actants. The scales and machines were produced elsewhere and brought to the TNC from other TNCSC institutions, while the MSP was determined in Delhi and Chennai. This enactment had a definitive and fixed outcome. It produced the commodity value of the paddy, as indicated in money. As illustrated above, this commodity value was enacted by converting embodied and relational – and thus processual and contingent – qualities into disembodied, fixed, and unchangeable properties. Volume was converted into kilograms both at the TNC and by the regional brokers. Furthermore, different qualities of the paddy were turned into quantities. At the TNC, this conversion was carried out during the purchase, whereas the private paddy agents used embodied knowledge and perception to determine the paddy's quality. The qualities of the

paddy bought by the private brokers thus remained embodied until they were abstracted and fixed by the rice mills that measured the paddy's humidity and determined its quality. When selling their paddy, farmers were integrated into these networks, too, albeit they could not influence the assessment of their paddy's quantity and quality or the enactment of its price. Nevertheless, their involvement in these networks also changed their own perspective on the paddy they cultivated, especially as they had to cater to the demands of the buyers, anticipate the results of the conversion process described here, and plan their cultivation accordingly. This was all the more important, as they had to balance these demands with the social and ecological conditions in the paddy meshwork and with their dependency on other networks of brokers during the cultivation process.

Enacting Profits, Expenses, and Yields: Caught between the Paddy Meshwork and Networks of Brokers

As a consequence of the industrialisation and mechanisation of agriculture, farmers were required to purchase costly inputs and services at almost every step of the cultivation process. In order to gain access to these inputs, they had to get involved with various other networks of brokers than those described thus far.

Brokerage in Cultivation

Since all farmers had sold their oxen long ago, they needed tractors or power tillers for ploughing the fields. However, only very few village residents had been able to afford purchasing their own tractor or power tiller, and most farmers thus had to pay rent to one of these few owners to have their fields ploughed. There were three small ploughing vehicles and five to six tractors available in the immediate vicinity of Kaveripuram (see Chapter 8). Since all farmers exclusively cultivated HYV seeds to achieve higher yields, they purchased new seeds from the agricultural extension office or from private seed shops in nearby towns or cities for every cultivation season. Furthermore, as the HYVs achieved their high yields only in combination with mineral fertilisers, different kinds of which had to be applied at different stages in the cultivation process (see Chapter 3), farmers had to purchase these, too, from the Farmers' Society, the agricultural extension office, or private shops.

Farmers who needed additional water to irrigate their crops further had to pay rent to one of the few farmers in Kaveripuram who owned tube wells (see Chapter 8). The charges for irrigation water lay between 50 and 60 INR per hour or between 600 and 2000 INR per 100 *kuzi* per season. Due to an increasing frequency and intensity of drought years – most likely related to global warming – and insufficient water in Kaveri River, it had become common for farmers to be forced to rent water from tube well owners at the very least during the initial stages of the *kuruvai* season. The lack of water in Kaveri River was primarily caused by the

ongoing dispute between Karnataka and Tamil Nadu over the Kaveri water. Indeed, the amount of water available for cultivation, and the date of its arrival, mainly depended not on the rainfall in the region, but the rainfall upstream in Karnataka, where the Kaveri River was also used for irrigating farmers' fields. However, the water shortage was amplified regionally by droughts and falling groundwater tables (see Chapter 1).[128] The water that arrived from Karnataka was stored in the Mettur dam in Tamil Nadu and released only when sufficient water had accumulated. The date of the release of the water was announced in advance by the state government based on expected amounts of water. However, this release date could be delayed by several months, as it was dependent on the actual rains as well as on Karnataka's releasing enough water for Tamil Nadu. Water shortage was one of the biggest issues farmers faced. Water in the research area was so scarce that in the fields west of Kaveripuram, which were not connected to tube wells, farmers were struggling to even cultivate one season of paddy per year, some of them leaving their fields completely uncultivated or only planting black gram (*ulundu*) in late January. It was only due to the erection of several tube wells in the northern fields by wealthy farmers that the two-season cropping system could be upheld in Kaveripuram (see Chapter 8).[129] Farmers in Kaveripuram thus had to factor the costs for renting water into their cultivation calculations.

The HYVs cultivated by farmers were susceptible to pests, insects, and fungi, against which farmers had to buy expensive pesticides, insecticides, and fungicides at shops in the nearby towns or at the agricultural extension office. Since the excessive application of mineral fertilisers encouraged the growth of weeds in the paddy fields, farmers had to purchase and apply herbicides, too. The increasing industrialisation and commercialisation of agriculture in the last decades had brought about new seed, fertiliser, and agro-chemical producing companies. With them, networks of brokers that extended the former's products to the farmers had come into being, the visible nodes of which to the farmers were the local government-operated Farmers' Society and agricultural extension office, both of which were located in nearby villages, as well as the private shops that had opened in the nearby towns and cities. The introduction of tractors and power tillers as well as tube wells and motor pumps, on the other hand, had, in combination with government subsidies extended to those who wanted to purchase these technologies, led to the establishment of a few village residents as technology brokers. These village residents rented out their machines and water to the other farmers for money, thereby creating new networks within the village, farmers' costly participation in which was necessary for the enactment of their paddy as a healthy crop.

[128] The Kaveri water issue has been the cause of constant conflict between the two states for decades. The dispute was even brought before the Supreme Court (see Lakshmana/Gopal 10.01.2018).

[129] During the research period, the river water never reached levels higher than a metre in the lowest sections of the riverbed. Except for maybe one month per year, the riverbed was never even fully submerged under water. In both 2014 and 2015, *taaḷaḍi* and *cambaa* harvesting started only after *tai poṅgal*, the three day-long harvesting festival, which begins on the 15th of January every year.

For harvesting their paddy, farmers further required harvesting machines. These were not locally available. Despite efforts of the government to encourage farmers to purchase such machines by offering significant subsidies for purchasing them, the harvesting machines – and their owners and operators – came from such far-away places as Salem, Attur, or Tiruvannamalai and toured different areas of Tamil Nadu during the harvesting seasons.[130] Harvesting machines had to be rented and paid in hourly rates. They were hired with the help of local brokers, whose commission of 100 to 200 INR per hour had to be paid by the farmers, too.[131] Both in Kaveripuram and in a close-by village, where I enquired for comparative purposes, the local paddy broker was simultaneously the middleman between farmers and the harvesting machine owners.

The dependency that the machines created was most felt by those farmers who had started their cultivation too early or too late or owned isolated fields that were too small to be worth the effort for the machine owners. They might end up having difficulties finding machines or having to pay more. One of the biggest Muppanar landowners, for example, told Chakravarthy and me in January 2014 that the price for harvesting machines for him had risen by 500 to 600 rupees per hour compared to the previous year, since, due to water shortage, most of the other farmers had planted their crops later than he did and there were not as of

[130] Machine owners and operators did not know local farmers or which fields would need harvesting machines at exactly which time. Harvesting machines were brought to their destinations on specially equipped lorries. These lorries were equipped with ramps for loading and unloading the machines, as well as with a toolbox for the machines. In October 2016, Muruganandam and I interviewed a machine owner in a close-by village. He had come for the harvesting season to this area from a town close to Bangalore. When we spoke to him, he had just finished washing himself with the water coming out of a bore well situated close to the road where his lorry was parked. He told us that he and the two operators he hired, who were his own younger brother and his wife's brother, would be touring different areas for about a month during the harvesting season, during which they would sleep in the lorry, in temples, or in local houses. They would buy their food in local shops when working and cook for themselves when free. He told us that he had worked as the operator of a harvesting machine himself, before he had purchased his own harvesting machine – together with an already equipped lorry – second hand. He emphasised the importance of local brokers, arguing that they were absolutely vital for his business, as without them he would be having a hard time collecting the rent from the farmers who might delay payments until he had to move on without the money or otherwise cheat him. He further told us that it was important to have someone to trust. Sometimes, for example, he would have to depend on a broker to collect the money for him and put it in his bank account when he was already somewhere else. For this to work out, there needed to be trust (*nambikkai*) between the broker and himself. While the machine owner described his relationship with local brokers in rather positive terms, a broker from a village in the region complained to us that a machine owner had told him that he would only further stay with him in this area, if he paid him a significant amount of money in advance, because it was already very late in the *kuruvai* season and not many fields were left for harvesting. A farmer whose paddy was supposed to be harvested had allegedly also been forced to pay a machine owner a significant advance the day before the harvest in order to ensure that the machine owner would appear the following day.

[131] The going rates for harvesting machines varied according to whether they were equipped with tires or chains. The former were cheaper than the latter but might get stuck in the field if the soil was too muddy. Since the lower, northern fields were not elevated enough for the soil to have sufficiently dried until harvest, harvesting machines with chains were used much more often in those fields. However, harvesting machines with tires could also get stuck in the more elevated southern fields close to the river (see Chapter 2), as happened in the field of one of the biggest farmers from Kaveripuram during the *taaḷaḍi* harvest in February 2014. He had hired a harvesting machine with tires but ended up having to call for a chained machine urgently, as the initial machine got stuck in the mud.

yet many machines in the area. He thus had to put up with higher rates for his early harvest and could not do anything about it.

Another important aspect was the need to hire agricultural labourers to perform the necessary tasks in cultivation (see Chapters 3 and 8). Agricultural labourers were now embedded in several governmental and private networks through which they received material support and education. Several governmental support schemes – such as the provision of free ration rice, the mid-day meal scheme in public schools, or the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) – had strengthened the bargaining position of agricultural labourers. Furthermore, the out-migration of young Dalits and non-Brahmins to receive education or employment in the cities or towns as well as the lack of available child labour – as the agricultural labourers' children now attended school regularly – had made agricultural labour scarcer (see Chapter 8). The working conditions for agricultural labourers had thus improved. This included shorter working hours and less intensive work, raised salaries, and the additional provision of tea and snacks purchased in tea shops and paid for by the farmers.

As can be inferred from these illustrations, the Green Revolution policies and related measures had led to the involvement of government agencies and private companies in the cultivation process. These involvements had brought about several new constellations of actors and actants from inside and outside the paddy meshwork on which farmers were dependent and with which they needed to engage – mainly by paying money – in order to cultivate their paddy successfully.

Calculation and Cultivation Choices between the Paddy Meshwork and Networks of Brokers

Paddy cultivation thus required significant investments distributed across the cultivation period. These could easily amount to 15,000 or 20,000 INR per acre. Transplantation and harvesting particularly required a lot of cash at once. For transplantation, male and female agricultural labourers had to be hired, the main fields had to be ploughed with a power tiller, and a mixture of different fertilisers had to be purchased and applied as well. Harvesting required the hiring of a harvesting machine and additional manual labour for cutting the paddy at the edges of the fields that could not be reached by the machines. Furthermore, agricultural labourers had to be hired and paid for filling the harvested paddy grains in bags and loading the latter onto a transport vehicle, which also needed to be paid.[132]

Farmers therefore had to make sure they had enough money at hand to pay for the necessary expenses at the right times, many of them struggling to have enough cash ready. It was common for farmers, even wealthier farmers, to take loans at the beginning of the

[132] Small TATA AC transport vehicles cost around 150 INR per load.

cultivation period and – if nothing went wrong – pay them back after cultivation. Farmers who were members of the government-operated Farmers' Society were eligible for loans that were interest-free, if paid back within a year. For paddy cultivation, interest-free loans of 20,000 INR per acre could be acquired each season. However, as one of the officers at the Farmers' Society explained, only ten percent of the members were eligible for such loans, since the budget did not allow for supporting more individuals. Thus, while some farmers were fortunate enough to be loan-receiving members of the Farmers' Society, most farmers were dependent on loans from private banks, where interest was to be paid, and thus in danger of falling into dept spirals.

While the cultivation of paddy entailed a direct relationship of care with the paddy plants as described in Chapter 3, it therefore also required accounting and the acquisition and managing of money and debts. In this regard, what mattered were not primarily the embodied qualities of the paddy, but the number of bags harvested as measured in kg and the amount of money received for them. Accordingly, when farmers talked about the value and qualities of the paddy they produced in relation to selling it, they talked about it in terms of gains and losses estimated or measured in quantities of bags and money. The words most commonly used in relation to cultivating paddy for the market were *laabam* (gain, profit) and *naṣṭam* (loss), as well as *makacuul* (yield) and *celavu* (cost, expenses). My interlocutors would, for example, state that there would be a profit, if a certain number of bags of paddy per 100 *kuzi*[133] was harvested in their fields, but that it would become difficult if this number decreased. Such statements were typical of how farmers talked about their cultivation choices and about paddy as a cash crop. This does not necessarily mean that most farmers cultivated paddy to make profits or that they kept meticulous accounts of every rupee they spent during cultivation. Motives for cultivating paddy and ways of accounting differed. Rather, it shows that, since farmers produced the paddy in order to sell it for money, they had to frame the processes of growth in the meshwork in ways that allowed them to anticipate the conversion into monetary value that would be carried out when the paddy was sold. They were further dependent on making as much money as possible, due to having expenses throughout cultivation and also having to pay for many other necessary products and services, such as clothes, food items, or their children's education.[134] The farmers who possessed lands suitable for sugarcane and

[133] 100 *kuzi* equal a third of an acre.

[134] The 'profits' to which farmers referred were the difference between a rough estimate of the cultivation and transport costs and the money received from selling the paddy. Most landowners in the village owned lands the size of two acres or less. This means that even if they made 15,000 INR in 'profit', which is optimistic for an acre of paddy, at the *kuruvai* harvest and another 15,000 INR for *taaḷaḍi*, they would still fall significantly below the World Bank's international poverty line, earning approximately 84 INR (about 1.24 USD) per day for the whole household. In 2016, the lowest poverty line applied by the World Bank was 1.90 USD per person per day [povertydata.worldbank.org/poverty/country/IND; accessed on the 14.12.2016]. Not surprisingly, most of the smaller and some of the larger paddy farmers derived most of their income from other sources. All of the Pallar landholders, for example, worked as agricultural labourers or performed other blue-collar work, while one of them worked as a

sufficient resources, therefore, almost inevitably cultivated the latter instead of rice, since sugarcane could achieve much higher profits. However, apart from possessing the right lands, farmers also needed to invest significantly more money and had to wait 10 to 12 instead of 3 to 4 months before they received a return from cultivation (see Chapter 2). For most farmers, who possessed small amounts of land mostly located in the fields north of the village that were not well suited for sugarcane (see Chapter 2) and who did not have access to sufficient cash, this was thus not an option.

Since cultivators were dependent on good yields as well as on good prices offered for their paddy, they made their cultivation choices accordingly. As illustrated earlier, the TNCSC distinguished only between 'Grade A' and 'common' varieties of paddy, paying slightly more for the former varieties. The rates that private merchants offered for certain paddy varieties, however, were based on supply and demand and thus different for each variety. Some of the fine varieties, which were highly sought after by rice mills and consumers, could therefore achieve significantly higher rates. Farmers thus preferred cultivating the finer varieties. However, due to their delicate constitution, these varieties were more vulnerable to environmental conditions and cultivating them was risky. Farmers were therefore constrained between the social demands of consumers and paddy agents and the ecological demands of different seasons and weather conditions.

The *kuruvai* season generally offered more favourable conditions for the paddy to grow. From the planting of the seeds until long after the transplantation, there would usually not be any heavy rains or destructive winds and finer, more delicate varieties could be cultivated more easily. However, the cropping season was cut short by the advent of the Northeast Monsoon in October and the *kuruvai* season therefore did not allow for varieties that took longer than 120 days to mature. On top of that, the onset of strong rains could spoil the harvest, while the ensuing general humidity made the drying and storing of the harvested paddy very difficult, especially since there was no storage hall available to farmers.[135] The most sought-after fine varieties could therefore not be cultivated in *kuruvai*, as they simply took too long to mature and might spoil before being harvested. For *kuruvai*, the preferred varieties were thus ADT 36 and ADT 43. These varieties developed the thinnest, shortest, and finest grains out of the available *kuruvai* varieties and achieved higher market rates. ADT 43

government bus driver (see Chapter 8). One of the major Muppanar landholders had invested in his own power tiller and performed the ploughing for most of the other farmers in the village for rent. Other small Muppanar farmers and their wives had maintenance or construction jobs, worked as a bus driver, performed daily wage labour, or otherwise earned additional money, for example by running a tea shop. Those who could not find other sources of income attended the MGNREGA (see Chapter 8). However, since the scheme was associated with poverty and government 'hand-outs' by many (see Chapter 8), most farmers did not attend the scheme, even if they were in debt. Only farmers with holdings of several acres and a significant amount of land under sugarcane cultivation could get by as farmers.

[135] Indeed, in 2014, paddy farmers in the Nalgonda district of Andhra Pradesh, for example, engaged in protests complaining about lacking storage facilities and demanding that the government purchase their wet paddy (Staff Reporter 10.05.2014).

was also called *kaṭṭa poṉṉi* (short Ponni), since its fine, white-coloured, and small grains resembled those of the very fine and renowned Ponni rice but its plants were very short in height. These varieties being finer and softer, private buyers were ready to offer better rates for them (on quality distinctions see Chapters 5 and 7). During the *kuruvai* season, many farmers therefore preferred selling their paddy to the private merchants, as the rates offered by them for fine varieties significantly exceeded the 'A grade' MSP paid at the TNC. Another reason for preferring private buyers was the fact that the harvested *kuruvai* paddy tended to be excessively humid and could thus fall short of the TNCSC's quality standards. Furthermore, in 2014 and 2016, the TNC remained closed throughout the *kuruvai* harvest, so that farmers had no choice but to sell to private merchants.

During *taaḷaḍi* and *cambaa*, climatic conditions were usually harsher – as wind and rain brought destruction and pests in their wake – and cultivating more delicate varieties became a risky undertaking. Two fine varieties cultivated during *taaḷaḍi* or *cambaa* were BPT and White Ponni (*vellai poṉṉi*). These varieties were colloquially referred to as Ponni. I also heard farmers and agricultural labourers use the name *kaṭṭa poṉṉi* (short Ponni) for BPT instead of ADT 43. Farmers explained that, if heavy rains or strong winds occurred, the Ponni plants would bend down and spoil. Therefore, only very few farmers took the risk of cultivating BPT or White Ponni in *taaḷaḍi.*[136]

Most farmers settled for more robust varieties – such as ADT 38, CO 43, or ADT 46 – or very thick-grained and robust varieties like CR1009, the latter taking up to 160 days to mature. All of these had the advantage of being more resilient and resistant to environmental influences but the disadvantage of being less appreciated by consumers due to their thicker grains. After the *taaḷaḍi* harvest, which took place between January and March, most farmers therefore sold their paddy to the TNC. For the third season, which fell into the driest and hottest period of the year, again mostly *kaṭṭa poṉṉi* or ADT 36 were cultivated. The TNC was generally not opened for this season, since only very few farmers cultivated a third paddy crop. For farmers, depending solely on private merchants, however, added the risk of sudden drops in prices to the ecological and weather-related risks. As one farmer stated on the day of the harvest of his third paddy crop, agriculture was like playing the lottery: sometimes you would win, sometimes you would not. He explained that it had rained this time, the paddy had not grown properly, and the harvest accordingly had diminished by 15 bags in comparison to the last harvest. Furthermore, the price paid per bag was 100 INR lower than last time and there would thus be a significant loss when compared to the last harvest. Indeed, his statements illustrate farmers' dependency on the weather and ecological conditions in the paddy meshwork and the prices offered by the buyers of their paddy. He could not do anything against the

[136] In late 2015, I actually saw a field in a close-by village where the Ponni plants had been tied together in bushels with ropes, so that they would not bend down.

destruction of an estimated 15 bags of paddy due to unexpected rains and he also had to accept the prices offered to him.

Farmers thus had to negotiate between occurrences in the meshwork, such as weather, water availability, pests, insects, fungi, or weeds, on the one hand and the consumer preferences, prices, and quality criteria that shaped the conversion of their paddy into monetary value in the networks described above on the other hand. They further, as illustrated in the previous section, had to engage with several broker networks requiring them to pay money for inputs and services. They had to manoeuvre between all these different requirements, applying an administrative perspective on paddy cultivation as a business venture involving investments, gains, and losses generated in the interaction between different actors and actants and the enmeshment of different ecological processes. While the cultivation of paddy was an ongoing and cyclical ecological process, the different networks described previously all enacted definitive and finite, short-term results, such as the costs for and quantities of each input or service acquired through the networks at a given time, which impacted the ongoing cultivation of the paddy. The degree of success of this process – and with it of the impact of all the networks described here – was determined when the quantity, quality, and monetary value of the paddy were enacted as fixed, disembodied properties during the selling of the paddy. This was the moment when the paddy was removed from the ongoing, fluid processes of enmeshment in the paddy meshwork and enacted as a commodity with definitive properties.

Conclusion

In this chapter, I have shown how paddy was enacted as a commodity and alienated from its producers during and after the cultivation process. I have described the process by which the paddy was ‘disengaged from its makers’ and put ‘at the mercy of market transactions’ (Tsing 2013, 22) or of governmental redistribution through its assessment and the resulting enactment of its monetary value. While within the paddy meshwork, paddy was assessed by my interlocutors in relation to its embodied qualities, when it was sold, the paddy was subjected to assessment practices that transformed it from an enmeshed thing with embodied qualities into a uniform commodity with disembodied properties. Based on this assessment, the paddy was translated into a certain amount of money paid to the farmers. It was through the physical acts of examining, weighing, and bagging as well as through the conversion of the paddy’s qualities into abstract representations, that the paddy was detached from its makers and the social-ecological relations of its production and the latter were concealed. This assessment of the paddy and the determination of its monetary value were carried out by brokers in specific networks brought together and shaped by the demands and rules of the large buyer institutions, the TNCSC and the private rice mills. The paddy was thus enacted as

an abstraction in Marx's sense and '... what [was] unique about it (which – again – [was] the particular ways in which it [was] linked to others, conceived as part of what it is) [was] lost sight of behind its superficial similarities with other abstractions' (Ollman 1971, 134) as it was classified according to percentages, quality grades, kilograms, and money. Similarly, what mattered most for farmers about the other actors and actants involved in this process, such as the TNC staff, the private brokers, the scales, the regulators in Delhi and Chennai, or the humidity machine, were not primarily their embodied qualities, such as their caste-substance or their auspiciousness, but the information they provided, the statements and decisions they made, or any other kind of effect they had on the enactment of the paddy as a commodity.

I have further described in this chapter how the interventions of more and more brokers in the cultivation process forced farmers to treat paddy cultivation more and more like a value chain in which different parties supplied inputs and services needed for the assembly of the product, the paddy grains. The paddy that grew in the fields was cultivated using purchased seeds and inputs, of the relations of production of which the farmers were not aware and over which they had no control. Farmers had to engage with different brokers throughout the cultivation process, the demands of whom for money they had to factor into the process. This contributed to their enactment of paddy cultivation as a business undertaking. Indeed, an ever-increasing need for money – not just for agricultural inputs but for education, food, and many other necessities – required farmers to frame and understand paddy to a significant extent as a resource for gaining money and to make cultivation choices accordingly.

In Chapter 3, I described how paddy in the paddy meshwork was often enacted as embodying the continuity of the life of different organisms and social groups living in the paddy meshwork. Since, as we have seen here, the cultivated paddy was destined to move out of the paddy meshwork and be exchanged for money, it embodied the very opposite of a continuous process of life in this context. Farmers had to treat paddy as a commodity from the very beginning of the cultivation process, articulating it in terms of anticipated expenses, yields, and profits, and making cultivation choices according to the logic of profit maximisation by weighing the preferences of the buyer networks and the rates they offered for different varieties of paddy against the ecological processes in the paddy meshwork. Here, the involvement of the different brokers, goods, and services in cultivation can be conceptualised as several actions with definitive outcomes, the latter being the enactment of certain costs, a certain amount of water released in the Kaveri River at a certain date, a certain amount of fertilisers or seeds entering the paddy meshwork, or a certain amount of bags being harvested by a harvesting machine, that are conducted in networks comprised of different actors and actants.

As can be seen, the changes in rice agriculture and the transformation of rice into a cash crop lead to an abstraction of rice and the alienation of rice from its cultivators. However,

in contexts in which the broker networks through which the state and private actors from outside the village exerted agency within the paddy meshwork were not relevant, such as those described in Chapter 3, the fact that paddy had become a commodity did not matter. In temple pujas or life-stage rituals, for example, rice was treated as embodying auspicious and sacred qualities and embodying the continuity of life, regardless of whether the rice itself was purchased from shops or cultivated in the village. The same was true for the harvesting festival *tai poṅgal*. Furthermore, despite selling it as a commodity, farmers still engaged in the cultivation pujas and many farmers still offered their *kuruvai* paddy to the deities first after harvesting (see Chapter 3). The ways in which rice and paddy as well as other actors and entities were perceived and treated thus depended on the specific situations and constellations of enactment (see Law & Mol 2008; Chapter 1). However, despite the continuity in the roles and significance of rice and other actors and entities involved in the paddy meshwork, some of the changes in the production, distribution, and consumption of rice had a stark impact on my interlocutors' enactment of rice in other contexts, too, as I will illustrate in the course of the following two chapters.

Chapter 5: Black-Boxed Rice: Making Sense of Alienated Rice

> 'Much anthropological literature regards 'knowledge' as an unproblematic accumulation of what people claim to know about the world, their social relations, cosmology, and practices. The flip-side to knowledge, namely ignorance, however, is rarely considered' (Dilley 2010, 176).

As illustrated in Chapter 1, in the decade preceding the research, most people in Kaveripuram started consuming rice from retail shops or the ration shop, rather than locally grown rice. In this chapter, I describe the changes in rice consumption that occurred ten to fifteen years prior to the research. I then describe how my interlocutors engaged with, talked about, classified, and evaluated the rice they purchased from the government-run ration shop or privately-owned rice retail stores. I argue that the ways in which they perceived shop and ration rice differed from how they perceived the rice from Kaveripuram's own fields and that the advent of the shop rice had given rise to new quality distinctions amongst my interlocutors, most of whom valued the shop rice above the rice from fields in terms of 'quality.'

I further argue that the technological and ecological processes to which the shop and ration rice were subjected as they were cultivated, transported, processed, and stored remained disembodied and abstract for most of my interlocutors. Indeed, I suggest that the rice from these institutions, especially the rice purchased from private shops, constituted a black box (Latour 1987) for most village residents, since they did not know where the rice they consumed was from, how it had been cultivated, processed, and stored, or what cultivar it was. I thus show that, despite their fondness of the shop rice's fine, soft, and white grains, and their common use of ration rice, their lack of knowledge about the origin and processing of these kinds of rice caused uncertainty and suspicion about the rice's quality and healthiness among my interlocutors. I argue that this uncertainty and suspicion were expressed in narratives and rumours about fraudulent behaviour and dangerous substances involved in the production, processing, and selling of this black-boxed rice. Indeed, as I further illustrate, some of my interlocutors explained that they still preferred processing and consuming their own rice, despite the increased workload this meant for them.

Rice Processing and Distribution: The Advent of Black-Boxed Rice

With the extension of the PDS in the 1980s and the arrival of private rice shops after the liberalisation of the Indian economy in the 1990s, not only the amount and types of rice available to village residents but also the channels through which rice was acquired and the origin of the rice changed, as the governmental ration shop and private outlets appeared.[137]

[137] The owner of a tea shop in the village, for example, stated that about thirty years ago when he was young, there had not been any shops selling rice. According to him, if village residents wanted to buy rice back then, they had to buy it from other village residents in measurements of *paḍi* (see Chapter 4).

Changes in Rice Consumption

According to my interlocutors, until about ten years ago, most village residents consumed the rice from their own fields or the rice they were paid as wages in agriculture.[138] The harvested paddy designated for consumption was usually brought to local rice mills for husking. Before doing this, the paddy would have to be parboiled, which in many families was carried out by members of the household themselves, while rich families had their attached labourers (see Chapter 8) to parboil the paddy for them.

Over the last ten years before the research, more and more landowners reportedly started selling their entire paddy harvest and buying rice from shops for consumption instead of consuming their own rice. When asked about why they had started doing so, my interlocutors often emphasised that consuming rice from shops was more convenient and saved them time. They also generally preferred the shop rice over their own rice, mainly due to its smaller size and softer texture. If intended for consumption, harvested paddy had to be stored and smaller amounts of it had to be parboiled and brought to rice mills for husking on a regular basis, which cost time and money. Big landowners used to have their paddy bar-boiled by their attached labourers, but, as several big landowners complained, labourers in Kaveripuram no longer performed this task for them. Some rice mills in the vicinity, such as a larger mill in a nearby town, offered farmers to parboil the paddy for them, thus making it unnecessary to rely on labourers. However, as a big Muppanar landowner argued, due to the large vessel the mills used for parboiling, the paddy that farmers brought there would inevitably be mixed with paddy from other farmers. According to him, this mixing and parboiling of paddy of the same variety cultivated by different farmers in different soils negatively affected the rice's taste, thus pushing him to purchase rice in the shops instead. Another Muppanar landowner told a similar story. He reportedly even tried putting his initials on the paddy bags for them not to be confused with those of others, but he reportedly faced the same problem of getting mixed rice back, since the mill's parboiling capacity was much larger than the number of bags he gave them.[139] As a result, in about 2001 or 2002, he started buying rice from the shops.

While landowners began selling their entire harvests of paddy around that time, other village residents, the majority of whom was landless (see Chapter 2), were also faced with decreasing access to village-grown paddy. In the past, a significant amount of the rice consumed by agricultural labourers, for example, had been drawn from the paddy they were

[138] People who par-boiled paddy themselves usually told me that they needed about one bag of paddy (about 70kg) for one month. After cleaning and husking, this would amount to roughly 40kg of rice. A Pallar agricultural labourer in his 50s stated that before the introduction of harvesting machines, agricultural labourers could earn an estimated 10 to 15 bags of paddy per year, which made for enough rice to feed four to six people for a year.

[139] People reportedly never took more than one or two bags at once to the rice mills for parboiling and husking, since paddy grains needed less care and could be easier stored than rice grains, therefore making it impractical to have large quantities of husked rice in the house.

paid as daily wages for their work in the manual harvesting, threshing, and winnowing of paddy or as a monthly salary for working as an attached labourer.[140] Due to the introduction of harvesting machines, however, opportunities for working in manual harvesting had virtually disappeared. Especially in the last five years prior to the research, agricultural labourers reportedly had received almost no paddy payments from harvesting, while threshing and winnowing had already become mechanised several decades previously (see Harriss 1977b, 141).[141] Accordingly, at the time of the research, agricultural labourers were also forced to consume rice from private shops or from the government-operated ration shop.

A few village residents still kept paddy for their own consumption and used the small rice mills in the area for having their paddy husked. Due to the decreasing number of people eating their own rice, these small rice mills had also decreased significantly in number over the last decade.[142] In the immediate vicinity of Kaveripuram there was only one small rice mill left. The mill was exclusively used by inhabitants of Kaveripuram and the other surrounding villages who parboiled their own paddy at home and then took it to the rice mill for husking or who had *paccai arici* (raw rice) from their home ground into flour at the mill.[143] The rice mill, therefore, was more often closed than open, as customers were rare. Given that the overwhelming majority of village residents was not willing to consume – or did not have access to – rice grown in the village, they had to either buy rice from the private rice shops in nearby villages and towns or consume the ration rice provided by the TNCSC.

Rice at Private Shops

The shop rice's journey from the paddy fields to privately-owned shops was very difficult to trace. Rice vendors were generally not cooperative when asked about the exact origin of the rice they sold. Neither were Chakravarthy's and my efforts successful in scheduling an interview at a large private rice mill. Rice shops offered rice from brands that operated across different states in India as well as different kinds of unbranded rice that may or may not have

[140] The other tasks performed by agricultural labourers – such as levelling the fields, transplanting saplings, or weeding – had been paid in cash even before the changes described in this chapter became relevant. In the past, service castes in the village would also have been entitled to payments in paddy and to shares of the harvest (see Gough 1981, 106-110; Menon 1979b, 17). However, most performers of caste-based services now came from other villages and services were mostly paid in cash.

[141] Since harvesting machines could not reach the plants at the outermost borders of the fields, some manual harvesting was still required. Furthermore, the harvested paddy needed to be bagged and carried to a transport vehicle. There were thus still some minor opportunities for agricultural labourers to earn paddy wages. My interlocutors reported the salary for these manual harvesting tasks to be seven *marakka* of paddy per day for each person at the time of the research.

[142] According to the owner of a small rice mill in a nearby town, for example, five of the ten mills in that town had closed over the last five years.

[143] According to the son of the owner, the mill had been converted into a rice mill about 20 years ago, having been an oil press before. Husking for one 70kg bag of paddy cost 70 rupees, if the clients wanted to take home the ground remains of the husks – called *taviḍu* in Tamil. If they left them with the rice mill, they did not have to pay anything for husking. The rice mill would sell the powdered husks as fodder to the owners of chicken farms or fishponds in the vicinity.

been derived from local cultivators. The former rice usually arrived in branded 25kg bags, which were called *cippom*. Branded rice could be bought either packaged in such 25kg bags, or loosely in weighed amounts – locally expressed as *kilo kaṇakku* ('kilo calculation') – from open bags. The rice sold loosely in amounts of kilogram was called *cillaṟai arici*.[144] Unbranded rice was usually sold only in weighed amounts. The rice vendors whom my research assistants and I interviewed stated that they acquired the branded bags from wholesale shops in Thanjavur or Kumbakonam that imported them from other states or other parts of Tamil Nadu, while they purchased the unbranded rice locally or regionally through paddy brokers, like those described in Chapter 4. The rice sold loosely in shops did not usually contain any indication of which variety (cultivar) it was or where it was from. The same, however, was also true for all the branded bags we inspected.[145] None of them indicated the name of the cultivar contained in the bag. Neither did any of them indicate the place where the rice had been cultivated (One bag referred to a particular river delta, but not to a specific place). Each bag indicated the name and address of the company that had packed and sold the rice. Most bags further exhibited certain quality designations. These were, however, not related to rice varieties (cultivars) or cultivation methods, but to the sorting and cleaning process that the rice underwent while being processed. However, even if varieties and places of origin had been indicated on the branded bags, this would not have meant that most village residents would necessarily have been aware of these indications, since most consumers of shop rice in Kaveripuram did not buy the rice in the original 25kg bags, but in loose amounts of kilograms, therefore never taking a branded bag home and having the opportunity to study it up close.[146] Furthermore, the information on many *cippoms*, regardless of whether they came from Tamil Nadu or other states, was provided in English, not Tamil, so that many village residents would have found it difficult to understand.

Despite – or maybe because of – this lack of information, there was no shortage of different kinds of rice distinguished according to quality and price that were offered in the shops. Rice vendors themselves often seemed unaware of the particular cultivars as well as the origins and cultivation methods of the rice they sold. When I asked vendors about the varieties of the rice they offered, they usually answered by either stating whether the particular rice was parboiled or not, by referring to the name of the rice brand, or by emphasising a particularly defining quality of the rice in question, such as its suitability for making *iḍli* or its small size and softness. The latter qualities would most often be expressed by comparing the

[144] The term *cillaṟai* was also used to refer to cash change or small money, as well as to other products being sold retail or piece by piece.
[145] *Cippom* bags could not easily be accessed in the shops. Muruganandam thus collected nine *cippoms* of different companies from various households for close examination. Furthermore, several people showed us *cippom* bags they kept in their houses.
[146] For important festive occasions, for which it was necessary to purchase rice in *cippoms*, village residents usually hired professional cooks who brought the rice with them, and therefore did not engage closely with the *cippoms* on such occasions, either.

rice in question to ‘Ponni’ (*poṉṉi*) rice, given that Ponni rice was renowned for its particularly small, thin, and soft grains. The most sought-after kinds of rice sold in shops were, indeed, known by generic names like ‘Karnataka Ponni,’ ‘Andhra Ponni,’ or *kaṭṭa poṉṉi*, even though, as far as I know, the designation ‘Ponni’ was not written on the *cippoms* in which the rice arrived at the stores. Contrary to the names given to locally cultivated varieties, such as ADT 39 or ‘Culture,’ these names did not refer to specific cultivars or groups of cultivars. Instead, rice vendors used the designation Ponni predominantly as an adjective indicating the rice’s high quality.[147] One time, for example, I asked the vendor in a small shop in a neighbouring village about the different kinds of rice they displayed in open bags. They were labelled with cardboard signs that read brand or generic names like ‘Cycle,’ ‘Cembarutti,’ ‘Karnataka Ponni,’ or ‘Lakshmi’ as well as the corresponding prices (40, 32, 42, and 44 INR per kg respectively). The vendor could not tell me the cultivars of any of the rice brands sold. The vendor did, however, tell me that ‘Lakshmi’ rice was ‘like Ponni’ when prepared and eaten. Another vendor in the city answered by first saying ‘*paccai*’ (raw) and then ‘medium ponni,’ when I pointed to a specific kind of rice and asked which variety (*rakam*) it was.[148] In a large grocery store we visited in a city, many different rice varieties were arranged in open bags featuring cardboard labels indicating the rice’s name, variety, and price. However, except for one kind of rice (‘TK-9’), no cultivars were indicated, but varieties were such as ‘*paccai arici*’ (raw rice), or ‘*poṅgal maavu*’ (rice for making ‘flour for poṅgal’), ‘*kai kuttal*’ (‘manually husked’), or ‘*kurunai*’ (broken rice), while one label offered ‘*24 Karat marriage special*’ for 56 INR per kg.

As can be seen, the rice available at private shops was usually untraceable and neither the cultivars nor the rice’s origin or the cultivation methods and substances used in cultivation were known to customers. In this regard, the rice resembled many of the alienated food commodities that can be purchased in supermarkets around the world, essentially lacking a production and processing history. In the following subsection I describe the journey the paddy purchased by the TNCSC underwent from its purchasing to its arrival in the village’s ration shop as ration rice.

Ration Rice from the TNCSC

The paddy purchased at the TNCSC’s Direct Purchase Centres in the research area was taken away in large transport vehicles for storage and subsequent milling.[149] The processed ration rice was transported to a large distribution centre, where rice, sugar, cement, and other

[147] On the receipts of bigger department stores in Thanjavur city, it was not uncommon for rice to be referred to as, for example, ‘Ponni Boiled Rice 1 KG.’

[148] There is, as I understand it, no such cultivar as ‘medium Ponni.’ The vendor most likely used this term to indicate that the rice was a little longer and thicker than what was considered ‘Ponni.’

[149] Reportedly, the parboiled rice was parboiled, cleaned, and husked regionally, while the raw rice offered in local ration shops was sent from mills located in other districts.

subsidised products to be distributed to ration card holders were stored. From the distribution centre, these goods were sent out every month to the individual ration shops.

The ration shop in Kaveripuram consisted of a single large room, along the walls of which bags with rice and other supplies were stacked. Since there was not enough space in the store for all the supplies, the barrels containing the kerosene to be distributed to ration card holders were stored outside the building in the shade of a public water tank. The shop supplied several hundred families, almost all of whom possessed green ration cards, which meant that they were entitled to receive between 12 and 35kg of free rice per month. Only very few families had reportedly converted their green cards into white cards, thereby exchanging their entitlement to free rice for the right to buy two more kg of refined sugar per month at a subsidised rate.[150]

Each family with a green card was entitled to different amounts of rice according to how many 'units' were registered on their card. Every person of 12 years of age and older was counted as one full 'unit,' while every person below 12 years of age was considered a half unit. Cards with only one unit were given 12kg of rice per month, while cards with one and a half units received 14kg. Similarly, two units were entitled to 16kg and two and a half units could claim 18kg. From three units onwards 20kg were distributed to a family. Families considered to live below the poverty line (BPL) could apply for special concessions to receive up to 35kg of rice per month.

The ration shop offered both parboiled and raw rice. Parboiled rice could be of either 'A Grade' or of the 'common' varieties, while raw rice was usually 'A Grade' rice.[151] My interlocutors in the village stated that they had no prior knowledge of whether the parboiled rice sent to the shop in any given month was going to be 'A Grade' or 'common' rice.

As illustrated above, the ration rice and, to an even higher degree, the rice from the shops arrived in Kaveripuram and the surrounding villages and towns as alienated commodities. Contrary to their knowledge of the rice that was mainly consumed until ten to 15 years ago, most people did not have first-hand (or even second-hand) knowledge of the processing, such as the cleaning, parboiling, polishing, or storing, these types of rice underwent. Furthermore, while in the case of ration rice they knew that at least part of the rice had been cultivated in the region or even their own village and thus roughly knew the conditions of cultivation and the cultivars, this could not be said about the shop rice, the origin, production conditions, and cultivars of which were unknown. Thus, what these two types of rice had in common was that they constituted what Latour (1987) calls 'black boxes' for most people (see Chapter 1).

[150] Apart from rice and sugar, the shop also sold wheat flour, red gram, black gram, palm oil, tea powder, and kerosene at subsidised prices.
[151] See Chapters 4 and 7 for more detailed descriptions of these and other quality criteria and categories applied to different kinds of paddy and rice.

Engaging with Black-Boxed Rice

The rice from the private shops and the ration shop constituted black boxes, in that the relations and conditions of their production, that is their cultivation and processing, were unknown to most people in and around Kaveripuram. This black-boxed nature of the rice was reflected in the ways in which my interlocutors enacted this kind of rice as compared to the rice cultivated and processed in the village.

Perceptions of Shop Rice

Given the nature of the information provided at private rice shops, the way my interlocutors talked about shop rice was markedly different from how they talked about the varieties of rice they knew and cultivated in Kaveripuram. When people in Kaveripuram were asked about the *rakam* (variety) of paddy or rice, they usually answered by naming the particular cultivar, which they associated with certain embodied qualities. When talking about the rice offered at shops – instead of referring to particular cultivars – my interlocutors distinguished different kinds of rice mainly according to their price, which was used as an indicator of quality (see Chapter 7). Many people also invoked particular brand names or generic names like 'Ponni' rice, or even the colour of the branded bag of the rice they bought.[152]

Many people who relied mainly on ration rice for their everyday meals, presumably not having a lot of experience purchasing different brands of shop rice, referred to generic embodied qualities, such as softness, small and thin grain size, lack of smell, stickiness when prepared as 'old rice' (*palaiyadu*; see Chapter 6), or white and 'neat' colour, when talking about shop rice. Indeed, the general expectation was that the more expensive the rice was, the smaller, thinner, and whiter the grains would be. Village residents who could afford to regularly purchase and eat rice from the shops, on the other hand, described the embodied qualities they associated with different brands or kinds of shop rice when prepared based on their experience with them. An older non-Brahmin woman, for example, described how she chose between different rice brands as follows. She told us that *cembarutti*, which was one of the brands most purchased, was not good, because the cooked rice would become sticky ('*kola kola*') like *poṅgal*. She stated that rice of this brand cost 800 rupees per *cippom*. 'Cycle,' she said, was good, but there were two different varieties (*rakam*) of cycle, one for 900 and the other for 950 INR per *cippom*. According to her, the less expensive one smelled of rice skin (*umi*) and thus was not good. To be considered good, she explained, the rice had to be a *canna rakam* (small, thin variety) and soft (*melicaa*). According to her, half and three-quarter broken grains (*kurunai*) - which were sold at cheaper rates than the whole grains of the same varieties or brands – were excellent for cooking rice meals (*caappaaḍu*), while quarter broken

[152] When I met one of the big landowners from a neighbouring village in front of a rice shop in a nearby town, he told me that he liked to buy **the rice in the blue bags** (he pointed towards them) for 1010 INR per bag, because it was very good quality.

grains became watery like *kañci* when cooked and could thus not be used for preparations other than *kañci* (a water-based, thin rice gruel or rice soup). She did not like Basmati rice, because, according to her, the tips of the grains would break off when cooked. This dislike of Basmati rice, which was often even more expensive than the most cherished kinds of shop rice, was common among my interlocutors.

As was illustrated in this and in previous sections, different kinds of shop rice were usually distinguished and referred to in relation to their price and generic or brand names, that is disembodied properties that were disconnected from social and ecological ties and histories. Those of my interlocutors who regularly used shop rice qualified different brands or price levels by associating them with particular embodied qualities they experienced when preparing and consuming the rice, while many of those who seldom ate shop rice seemed to associate shop rice more generally with certain valued embodied qualities. Village residents across socio-economic backgrounds were overwhelmingly of the opinion that the small, fine, soft, and white rice available in the shops was the best quality rice available and preferred it over the coarser and less polished rice grown in Kaveripuram and husked in local rice mills and over ration rice (see Chapter 7 for a detailed description of quality criteria in relation to shop and ration rice). Given that shop rice was perceived to be of high quality, expensive, and from remote locations (as will be described in a later section), it was generally associated with wealth and fine taste as well as with a certain exquisiteness. Ration rice constituted the opposite of these attributes.

Perceptions of Ration Rice

While the main categories my interlocutors used for distinguishing different kinds of shop rice were price and brand – or generic – name, these designations did not apply to ration rice, since the latter had no price and no such brand – or generic – names with which it could be associated. My interlocutors instead distinguished between the embodied qualities of the three different kinds of ration rice available, ‘A Grade’ par-boiled rice, ‘common’ par-boiled rice, and raw rice (see Chapter 4). The ‘common’ fat and parboiled varieties were described by interlocutors from all socio-economic strata as not edible. The grains were very big and hard and thus said to require excessive chewing and to be difficult to swallow. My interlocutors further complained that the fat grains had too much taste of their own, therefore not blending in well with the sauces commonly used for rice meals. Indeed, village residents did not use the ‘fat’ varieties of parboiled rice to prepare rice meals unless they absolutely had to do so due to an acute lack of alternatives (see Chapter 7). Many people stated that they kept the fat ration rice they received for preparing *iḍli* batter, as thicker, firmer varieties were said to give

iḍlis the best consistency,[153] while a few interlocutors reported to not accepting the fat varieties at all or exchanging them back for slimmer varieties the subsequent month.

The raw rice offered at the ration shops was mostly considered to be of reasonable quality, perhaps comparable to the cheapest and biggest varieties of raw rice sold in private shops. However, most of my interlocutors did not place much importance on the raw rice offered at the ration shop. This was not surprising, since raw rice was only used by vegetarian castes for preparing rice meals, while non-vegetarian castes, who constituted the overwhelming majority of village residents (see Chapter 2), consumed rice meals prepared with parboiled rice (see Chapter 7). Some non-vegetarian interlocutors stated that they sometimes took small amounts of raw rice from the ration shop and used it for cooking *poṅgal* or for preparing particular sweets,[154] mostly at the time of Diwali and *tai poṅgal*. However, only very few non-vegetarian village residents stated that they occasionally used the raw rice from the ration shop to prepare rice meals. Only poorer members of the vegetarian castes stated that they regularly procured and used raw ration rice for preparing rice meals.

The ration rice most used and most discussed by most of my interlocutors, however, was the finer, 'A Grade' parboiled rice. The parboiled 'A Grade' varieties were the most sought-after type of ration rice. My interlocutors from non-vegetarian castes who relied on ration rice reported to collecting this type of rice whenever available and using it for preparing rice meals or sometimes for making *iḍli* batter as well. When my interlocutors compared this rice's quality with that of the rice that could be purchased in the shops or the rice cultivated in the village and processed in local rice mills, they mostly stated that the ration rice contained bigger and firmer grains than the shop rice and was thus of lower quality and less tasty. While the grains of most locally cultivated varieties were of similar size than the grains of the ration rice, my interlocutors uniformly agreed that the quality of Kaveripuram's own rice was much higher than that of the ration rice. The latter, they maintained, was poorly processed and consisted of different varieties lumped together.[155] Ration rice was also often described as having a bad smell and as containing grains of uneven and dull colours. My interlocutors, furthermore, complained about the rice's not being properly cleaned and containing many small stones and black grains, which had to be manually removed (see Chapter 7). Indeed, it is important to note that ration rice was commonly considered to be much worse than shop rice in terms of the size, colour, and texture of the grains, and to be of much lower processing quality than both rice cultivated and processed locally and shop rice.

[153] Even families from vegetarian castes prepared *iḍli* for home-use with par-boiled rice, which due to its firmer consistency was better suited than raw rice, even though they generally abstained from consuming par-boiled rice (see Chapter 7). Some of them thus collected par-boiled ration rice for this purpose. When they offered *iḍli* to deities or ancestors, however, a senior Brahmin interlocutor reported, they exclusively used raw rice for preparing it (see Chapter 7).

[154] The different varieties of *poṅgal* as well as several sweets made with rice flour were prepared with raw rice by all castes.

[155] I provide a detailed account of my interlocutors' perceptions of ration and shop rice in Chapter 7.

Here, too, different embodied qualities from the experience of cooking and consumption were attached to the different categories of ration rice and served as the basis for their evaluation by my interlocutors. However, while the embodied qualities of shop rice were commonly appreciated and associated with high quality, ration rice embodied the opposite end of the quality spectrum for many village residents.[156]

Opening the Black-Box: Situating Rice within Meshwork Categories

While most village residents bought rice from shops or regularly consumed ration rice, the alienated nature of these food commodities, nevertheless, influenced the way they related with these commodified types of rice. As can be seen from the previous descriptions, the embodied qualities that my interlocutors associated with different kinds of shop and ration rice concerned the appearance, taste, texture, and other qualities of the grains related to consumption. That is, they stemmed from the re-embodiment of the disembodied shop and ration rice through the preparation and consumption process. However, during preparation and consumption, the reembodied rice still stood alone, the relations of its cultivation and processing still not being known to – and thus constituting a black box for – my interlocutors. Due to this lack of knowledge, I argue, some of my interlocutors developed their own theories to reconstruct the relations of the shop and ration rice's production and make sense of their embodied qualities, like smaller size or bad smell, by locating them in a context of enmeshment with certain substances and places. They thus, in other words, tried to open the black box.

Theories about Origin and Ecological Relations

Much of the rice in shops was advertised as coming from other states, such as Karnataka and Andhra Pradesh. The supposed origin in other states was, among other things, a sign of a degree of quality that could supposedly not be achieved in the local soils. Karnataka and Andhra Ponni designated the smallest and finest rice varieties available in the shops. Karnataka was also often indicated on different *cippom* bags as the home state of the rice companies who produced the bags. Another place some interlocutors associated with fine rice was Manachanallur, a village in the Tiruchirappalli District of Tamil Nadu. My interlocutors thus commonly associated the small and slim rice varieties available in the shops with other places, soils, and states. An interview I conducted with a Padaiyacci farmer and a Nadar male agricultural labourer from a neighbouring village is illustrative of this association. The farmer told me that he ate rice from Manachanallur, Karnataka, or Andhra Pradesh and he also spoke of 'Manachanallur Ponni.' When I asked him whether such fine rice would also grow in Kaveripuram, he stated that only 'fat' varieties would grow here. If planted here, he argued,

[156] This does not mean that people did not consider ration rice to be helpful. In fact, it constituted an important resource for poorer households and many of my interlocutors considered ration rice to be healthier than shop rice.

the fine varieties would produce significantly less grains and their cultivation would thus not be profitable. The agricultural labourer, on the other hand, stated that the local soil had too much nutritious essence (see Chapters 3 and 6) and would thus make the grains of the paddy fat, so that the plants could not develop fine grains at all in Kaveripuram's soil. He compared this to feeding a child. If a child was fed twice as much, he argued, it would become fat. Invoking an excess amount of essence coming from the soil as the reason, the agricultural labourer here enacted rice as an enmeshed being, the embodied qualities of which, such as its fineness, were the result of its enmeshment with other substances, such as the essence (*cattu*) from the soil (see Chapter 3). According to the farmer, on the other hand, it was the quantity of grains, rather than their size, that was constituted in the enmeshment with local substances. Both men, however, employed a meshwork perspective and associated the fine varieties with different ecological conditions.[157] Since my interlocutors knew that the ration they received was mostly derived from local cultivars, possibly even having originated from their own village, and given the general lack of enthusiasm for ration rice, its origin did not seem to be a matter of concern for them. Instead, as I will show later in this chapter, when asked about what influenced the qualities of ration rice, my interlocutors often talked about alleged conditions at government rice mills and storage facilities that in their view brought about the bad quality of the ration rice.

While both the origin of the shop and the ration rice did not appear to be of major concern for most of my interlocutors, their lack of knowledge about the shop and ration rice's conditions of production and processing, on the other hand, seemed to give rise to speculation, uncertainty, and suspicion among them. In lieu of other ways of opening the black box, my interlocutors related the embodied qualities of the rice they consumed to processes, images, and discourses with which they were familiar or which they had heard from others through narrations and rumours. In relation to the rice's physical constitution, as they experienced it, and the information they had, they thus imagined how the rice must have been produced and processed. I argue here that by establishing narratives about how and why the rice assumed the embodied qualities that it exhibited, my interlocutors attempted to reinstate some certainty about the rice's relations of production, from which they were alienated. As I will show, instead of having faith in the 'abstract capacities' (Giddens 1990, 22-26) responsible for the production

[157] A local paddy broker (see Chapter 4) offered a different explanation. According to him, 'Karnataka Ponni' was actually cultivated in the region, a statement that a regional paddy broker confirmed. According to him, only farmers with large holdings cultivated it, as the lower yields but higher prices that the Ponni generally afforded were only profitable when reducing costs by benefitting from economies of scale and cultivating several acres of other paddy varieties as well to balance risks. The slim varieties were, indeed, known to be more delicate and cultivating them thus entailed a greater risk of losing the crop. Given that in Kaveripuram almost no cultivator possessed large landholdings over 10 acres, it is, according to this reasoning, not surprising that these delicate varieties were not cultivated there. In the brokers' views, the fine varieties could thus well be cultivated in the area, the hindrance mainly being small landholdings, rather than ecological conditions (see Chapter 4).

of the rice – such as the TNCSC or the companies mentioned on the branded bags - my interlocutors were highly sceptical and suspicious of the processing of the rice and of the effects this processing might have on the rice's quality and on their bodily health.

Concerns with Processing and Health

Ideas of how the rice in private shops or in the ration shop had been produced (especially processed) and stored and what effects on the human body it had, varied and often seemed mostly speculative, though often presented as certainties. Given that so many details of the rice's commodity chains were unknown, rumours about deception, wrong-doing, and profiteering on the part of rice producers and sellers and government officials existed in abundance. A male agricultural labourer from the Pallar street, for example, argued that the rice from private shops and from the ration shop was not good because the rice mills tempered with the processing of the rice, parboiling it two times in order to increase the rice's weight and thereby minimise weight losses from husking.

There were other rumours about tempering, too. The owner of a smaller rice mill told Raja and me that bigger rice mills selling rice to private shops applied 'sodium bi-carbonate' to the rice during parboiling, so that it would not break while being polished heavily. Similarly, the owner of one of Kaveripuram's tea shops told me that the rice available in *cippom* bags was excessively polished and that the rice mills thus added urea to the rice to prevent it from breaking or spoiling during the process. When I asked him whether he had seen it himself, he answered that he had not but that he had heard this from others. He added that ration rice was good and its grains did not suffer damage, because it was parboiled two times. It therefore had a lot of essence, he argued. On the same day, a Muppanar man told Muruganandam and me that ration rice was tastier and healthier than shop rice, because it was soaked, parboiled and husked only once, whereas rice from the shops was soaked, parboiled, and polished two times. The shop rice, he said, was like waste (*cakkai*), because it was polished too much. It had no taste but – contrary to the ration rice – it was white and did not contain black rice grains. A few days later, a Brahmin family told Raja and me that the rice from the ration shop was waste (*cakkai*), because it was not well processed in the rice mills, and that the rice from the shops was well processed and thus of good quality. However, they added that the raw rice (*paccai arici*) from the shops had no taste, because for raw rice to taste good the paddy needed to be stored for one year before husking and processing it and the companies did not do that. A woman from the Kuravar caste told me that both shop rice and ration rice were stored for such a long time that they did not contain *cattu* (nutritious essence; see Chapter 3) anymore. She added that the fresh rice from the fields was the healthy rice, as the consumers themselves would parboil (*avial*) and husk it manually (*kai kuttal*). An older Muppanar woman, on the other hand, told me that ration rice had more essence than rice from the shop, because

it was not polished, just parboiled and husked. She said that people generally did not understand this. She continued saying that when one ate ration rice, one would stay saturated for a longer time as it would be digested more slowly. Rice from shops, she said, tasted good, but was digested more quickly due to being polished and one would thus become hungry again sooner, therefore having to eat rice three times a day. This stands in direct opposition to statements of interlocutors I cite in Chapter 7, according to whom ration rice did not have essence, while eating shop rice was uplifting and gave people energy. As can be seen, my interlocutors made various statements about the processing, storing, quality, and healthiness of the rice that often contradicted one another. This illustrates the alienated nature of the shop and ration rice and the resulting lack of certainty concerning their qualities among my interlocutors.

My interlocutors were further highly suspicious of the actors and actants involved in the processing and selling of the rice. Stories that rice was tempered with or falsely designated existed in abundance. There were, for example, narratives about how some rice shops would buy ration rice and then polish the low-quality grains in special machines to make them appear smaller and whiter, after which they would add chemicals to bleach the rice and sell it as high-quality rice to unsuspecting customers. A middle-aged Pallar woman kindly warned me that some people would apply a 'chemical powder' to ration rice and mechanically grind it, before selling it. She said that she and other locals would recognise such fraudulent rice, but that I would not know and thus should only buy expensive, small-grained rice for 50 rupees per kg.[158] A Muppanar woman told Raja and me that some poor people would add one *marakka* of rice husk powder (*taviḍu*) to 20kg of ration rice and have it polished in a rice mill, so that it looked like shop rice. She added that the fat ration varieties would maintain their old taste, when treated like this, while the taste of the smaller ration varieties (*ciṉṉa rakañga*) like 'Culture' or ADT 36 would change and they would taste like shop rice then.

One of my interlocutors from Kaveripuram told me that a small rice mill in a nearby town secretly acquired and polished ration rice and then sold it as 'original' rice. He went on to say that the mill would also sell broken rice grains (*kurunai*) from ration rice to poor people claiming they were grains from locally harvested rice.[159] A farmer from a neighbouring village, on the other hand, stated that ration rice was not polished and sold in local shops, but illegally sold and smuggled to other states, for example to Kerala.[160] However, he argued that private paddy agents purchased local varieties like ADT-43 and sold them to large rice mills in other

[158] Other people told me that it was impossible to determine whether rice was original rice or polished ration rice before cooking it. When cooked, polished ration rice would lose its integrity and become watery, since it had lost so much of its outer skin.
[159] Broken rice was significantly cheaper and thus a good option for customers who wanted to eat fine variety rice without spending too much money.
[160] According to the Hindu, between the 16th of May 2011 and the 6th of February 2014, 15,322 people were arrested '... for smuggling PDS commodities,' while in the same period more than 3000 tons of smuggled ration rice were confiscated by the police (Narayanan 08.02.2014).

areas of Tamil Nadu that would polish and whiten them and then falsely label them as Andhra or Karnataka Ponni.

In local food shops, rice meals (*caappaaḍu*) were sold at 30 to 50 rupees per meal. A meal usually included several courses (see Chapter 3) and unlimited refills of rice. My interlocutors were uniformly suspicious of the rice meals cooked and offered in food shops. Many voiced concerns that the rice in the food shops was being bleached by cooking it together with calcium powder. Another common narrative was that in many shops, the rice for all-you-can-eat rice meals was mixed with baking powder, so that customers' stomachs would fill up and keep them from eating too much rice.

Some of the statements and narratives presented here reflect the uncertainty caused by wide-spread rumours of the secret selling of processed ration rice. Apart from these narratives, the processing of the ration rice available at the ration shop was subject to even more frequently uttered, critical explanatory narratives, many of which implied – at best – extreme carelessness on the part of the responsible government employees. My interlocutors frequently stated that the water for parboiling the ration rice in the government rice mills was never or only very rarely completely changed and was thus of black colour. Furthermore, there were stories about small mammals dying and rotting in the large storage halls, thereby infesting the ration rice stored there. Such narratives served to explain the uneven and dull colours of the grains and the foul smell that my interlocutors attributed to the ration rice.

Despite abundant complaints about ration rice, many people specifically singled out shop rice as the unhealthiest rice. Many of my interlocutors did not believe that the very white colour of the shop rice could be caused by polishing alone. They suspected that chemicals and other potentially dangerous or poisonous substances had been applied to the paddy and rice in the production process to give the rice a whiter colour. A female Pallar agricultural labourer, for example, compared the alleged chemical whitening of rice to rubbing oil on tomatoes in order to make them shiny. She stated that the rice that was of a very bright, white colour did only achieve this colour by being treated with chemicals. This white rice, she stated, practically consisted of chemicals and eating this rice would thus cause diseases. There were also concerns about the substances used in the cultivation of the shop rice. The owner of a small mill, for example, complained that rice from Karnataka was cultivated using excessive amounts of fertilisers, so much so that it practically **consisted** of fertiliser (*uuram taaṉ*). Here, health issues – together with the unknown provenance of the rice – were also connected to the unknown cultivation process of the rice. The idea was that due to the purely commercial nature of the cultivation there, the rice was contaminated with excessively applied chemicals. In both these examples, it can again be seen that imagining the rice as the result of the enmeshment of different substances with particular embodied qualities, as expressed, for

example, in the ideas that the rice partly consisted of chemicals or fertilisers, was important for how its constitution was explained by my interlocutors (see Chapters 3 and 6).

My argument here is that these various rumours and narratives of dangerous substances and fraudulent or careless behaviour reflect my interlocutors' uncertainty and lack of knowledge about the alienated and disembedded rice they consumed. However, not all village residents consumed rice from outside the village. Some people still regularly parboiled and consumed rice they had grown themselves or had received as harvesting salary.

Parboiling and Consuming Own Rice

Several people still parboiled and consumed rice from the village, holding strong views about the superiority of this kind of rice over the rice bought from shops or the rice acquired at the ration shop. For my interlocutors, a major distinction between the rice from the shops and the rice they produced themselves was exactly the fact that they had produced the latter with their own hands and under their own supervision. Preibisch et al. describe how in Mexico, when the domestic market was opened to cheap maize imports from the US under Nafta, small farmers continued growing and consuming their own maize despite having to subsidise the financially unviable cultivation through increased labour migration and petty trading. Preibisch et al.'s interlocutors considered industrially produced tortillas to be of inferior taste and quality as well as 'dirty' and unsafe, possibly containing toxins or GM material. Furthermore, they – especially the women among them – derived a sense of pride and identity from producing and consuming home-made tortillas, which were connected to conceptions of household food autonomy, farmer identity, and also to the power of women, who had control over most of the home-grown maize (Preibisch et al. 2002, 71-74; see also Rossett 2006, 58). Very similar concerns can be identified in the case of self-cultivated and/or home-parboiled paddy in Kaveripuram. Village residents who parboiled paddy themselves frequently reported that their rice had a better taste and was healthier than shop rice. They also perceived the rice from the shops as receiving much less care by its producers, assuming that the latter worked according to a market logic of profit maximisation and thus did not put enough effort into parboiling or drying the paddy properly. They appreciated their self-prepared rice's qualities of being not overly white but of a uniform colour, being slightly larger, firmer, and thicker than shop rice, and having a more intensive smell and taste as indicative of its superior healthiness and processing quality. Even the parboiling of one's own harvested paddy in local rice mills, a Muppanar farmer argued, was inferior to parboiling paddy at home, since the rice mill might exceed the correct time for parboiling, which would then lead to breakage of the rice grains.

However, similar to the Mexican example, the control over production and preparation was not just related to taste or nutrients, but also to concerns about the safety of the food. As I have described in the previous section, there were many concerns about the alleged treatment

with chemicals of the rice purchased in shops as well as concerns with the ration rice's being processed under dirty conditions. Concerns about the safety of the food consumed and about the control over the production process of the domestic rice often went hand in hand with a strong affirmation of a farmer identity. Thus, while people who regularly ate shop rice were often wealthier non-Brahmins or wealthier Dalits, the village residents parboiling their own paddy tended to be either more 'health-conscious' farmers (like one of our Muppanar interlocutors, who was a well-read, strong supporter of Gandhi and rigidly in favour of organic agriculture), landed non-Brahmins who saw themselves as traditional farmers, or small, formerly landless Pallar or Muppanar cultivators. Many of the latter group, similar to what Preibisch et al. describe, subsidised their paddy cultivation with their salaries from employment or agricultural wage labour and were proud of cultivating their own paddy (see Chapter 8).

Conclusion

In their everyday shopping and cooking activities, most village residents did not seem to be particularly concerned with the alienated nature of the rice they bought. Nevertheless, it can be argued that their uncertainty concerning the cultivation, processing, and storage conditions of the rice did worry my interlocutors. As I have shown, their concerns were reflected in wide-spread rumours about the processing of the rice, according to which, for example, the rice was parboiled in very dirty water or bleached with chemicals and thus detrimental to bodily health. Underlying these rumours was a deep mistrust in the governmental and private institutions and actors processing and distributing the rice, who were perceived as operating to the detriment of consumers by cutting corners, maximising gain, and minimising costs.

Given that the rice was devoid of the social-ecological ties in which locally cultivated rice was embedded, these narratives can thus be seen as my interlocutors' way of 'discursively constituting' (Gupta 1995) the obscure and black-boxed socio-economic and technological processes and commodity chains characteristic of the current system by framing them in socio-technological, ecological, and moral terms drawn from their immediate environment and personal experiences. Talking about practices that allegedly shaped the rice that entered Kaveripuram became a way for my interlocutors to imagine, relate with, and comment on the rice from the relations of production of which they were separated, imagining it as the product of different ecological conditions and technological processes and of the agency of the networks of state agents and private actors involved in it. In these narratives, instead of perceiving it as standing on its own like a truly fetishized commodity, my interlocutors thus still associated the rice with – and enacted it as a product of – these black-boxed, disembedded networks. Accordingly, most people maintained that cultivating one's own paddy and parboiling it at home was better and much healthier than relying on commercial entities for cultivation and processing. Correspondingly, several cultivators still consumed their own

paddy, which they parboiled themselves, emphasising the health benefits, their own skills and care at parboiling, and the control they had over the production process.

While this chapter was concerned with black-boxed rice, the next chapter concerns itself with black-boxed mineral fertilisers and other agro-chemicals that cultivators applied during paddy cultivation. As will be shown, the effects of my interlocutors' alienation from paddy agriculture and rice due to the application of these black-boxed substances were much starker than the effects of alienation described in this chapter.

Chapter 6: Empty Soils and Poisonous Rice: Alienated Agricultural Inputs, Rice, and 'Modern' Diseases

In recent years, India has experienced a steep increase in the number of people suffering from type-2 diabetes and other lifestyle and nutrition-related maladies, such as obesity, hypertension, and cardio-vascular diseases.[161] While these diseases are often associated with urban, middle-class environments (Mohan et al. 2010, 369; Popkin 1999), wealthier areas of rural southern India have also experienced a dramatic increase in the incidence of type 2 diabetes and other such diseases lately (Shetty 2012, S16). In this chapter, I describe how my interlocutors in Kaveripuram explained the rising incidence of such health conditions as the result of changes in their bodies, in the rice they ate, and the way this rice was cultivated.

I begin this chapter by showing that my interlocutors related changes in the embodied qualities of the rice they consumed, such as increased susceptibility to pests or a shorter lifespan, to corresponding changes in their bodies. I go on to demonstrate that my interlocutors attributed these changes to the use of mineral fertilisers and other agro-chemical inputs and that they explained the increasing prevalence of type 2 diabetes and other ailments as resulting from the use of these mineral fertilisers and other agro-chemicals, which they saw as leaving the soils, the rice they consumed, and their bodies devoid of essence and strength and infested with poison.

Drawing on Sujatha's (2002) study of conceptions of health among Tamil village residents and on the meshwork view of substances described in Chapter 3, I argue that to understand why my interlocutors' explanatory narratives focused mainly on mineral fertilisers and other agro-chemicals, their perceptions of their bodies as constituted in part by the rice they ingest and of the rice as constituted in part by the substances it ingests from the soil need to be taken into account. The argument is that these perceptions of humans, rice, and soils as constituted in the enmeshment with substances that embody different qualities informed the way my interlocutors connected, in their explanations, changes they perceived in their bodies, in the rice they ate, and in the ecology of rice agriculture.

However, as I will show, there are several differences between the ways in which my interlocutors described the effects of mineral fertilisers and other agro-chemicals and the ways in which Sujatha's interlocutors did. I thus further argue that my interlocutors' recurring emphasis on a lack of nutritious essence and on poisonous substances in the rice as causing 'new diseases' can be understood in part as reflective of their increasing alienation from rice cultivation. This alienation is related in part to cultivators' being dependent on purchasing black-boxed, agro-chemical substances of unknown content and origin from brokers and applying them to their fields, while the organic manure, especially cow dung, that my

[161] See Chauhan/Tamber Aeri 2013; Gupta et al. 2010; Mohan/Venkatraman 2010; Ramachandran et al. 2008; Vennu et al. 2019.

interlocutors perceived as containing most of the essence necessary for the rice plants – and thus also for the humans consuming them – to be properly nourished was no longer available. I show that the perceived infestation of the rice with these chemicals led my interlocutors to distinguish between healthy, 'natural' rice cultivated with organic manure and contaminated, 'artificial' rice constituted partly of the alien substances.[162]

I further argue that, in my interlocutors' narratives, this latter rice became a metaphor for what they perceived as a more general demise of society and ecology as part of modernity. As I will further illustrate, while rice thus became a major example of a bad modernity run wild, my interlocutors increasingly came to see millets, which, being considered a poor man's food, had previously run out of fashion with the increasing availability of rice, as the opposite, a 'natural' and clean food associated with bodily health and tradition.

Narratives of Danger and Decay

When talking about rice and changes in agriculture with my interlocutors in Kaveripuram, type 2-diabetes and high blood pressure came up frequently in conversations, especially when speaking with senior village residents. Type-2 diabetes was most often referred to by using the English word 'sugar,' while high blood pressure was called by the English term 'pressure' or by its English initials, 'BP.'[163] Due to more and more village residents' being diagnosed with these and similar chronic diseases and conditions, my interlocutors were highly conscious of them.

It is likely that the rise in these chronic ailments is related in part to changes in village residents' diets. Since the 1980s, the quantity and types of rice consumed have changed drastically. In many areas of Tamil Nadu, the staple food for most of the working population had been different varieties of millets rather than rice, rice being consumed mostly on special occasions. However, due to the massive increase in the amount of rice available for consumption brought about by the Green Revolution and the wide-scale distribution of rice through the PDS, rice has become the staple food for most people in Tamil Nadu and millets have all but vanished from their diet (Chera 2020, 108-110; Ramasamy et al. 2000, 1; Sébastia 2011, 5).

In the region around Kaveripuram, according to my interlocutors, before the Green Revolution, rice had already been a staple food, even for agricultural labourers, although the latter had reportedly cooked fresh rice only once a day for dinner, eating the left-over rice as 'old rice' (*pazaiyadu*) – soaked in water overnight and mixed with curd – at noon the next day or consuming *kuul* or *keppai*, both millet-based foods, in the morning or for lunch. Landowners

[162] Very similar observations and arguments to those presented in this chapter were made by Dewan (for example 2019) based on her fieldwork in Bangladesh.
[163] My interlocutors also frequently used the English word 'heart attack,' while 'cancer' was also referred to by the English term.

had consumed their own paddy. However, many landowners had reportedly also regularly eaten 'old rice' or even millet-based foods. Furthermore, many village residents had reportedly manually husked the rice they consumed or had paid agricultural labourers to do it for them.[164] As illustrated in the previous chapter, over the last ten to fifteen years, most village residents had gradually stopped consuming rice from the village and instead started buying rice from private shops or from the ration shop. As a result of the large quantities of subsidised rice made available in the ration shops, even poorer agricultural labourers were now able to cook fresh rice two or three times a day. Most of my interlocutors further used ration rice to prepare *iḍlis* and *doocais*. These cakes or pancakes made with fermented rice and black gram flour had reportedly only been prepared for special occasions before, since the required grinding of the paddy had been arduous and time-consuming work. However, with the distribution of subsidised electrical rice grinders by the government, the preparation of these snacks had become much easier and they were now regularly eaten for breakfast or dinner instead of the healthier 'old rice' or millet-based foods. Furthermore, many village residents now regularly consumed highly sugared tea and coffee both at home and in the tea shops as well as fried snacks made from rice flour (*vaḍais* and *booṇḍas*), which were also sold at small food stalls or tea shops.

It is thus likely that one of the main factors contributing to the rise in the illnesses previously described in Kaveripuram is the consumption of significantly higher quantities of white rice and other sugary foods, as described above. Importantly, village residents increasingly consumed highly polished rice, which, according to my interlocutors, had become prominent only within the last ten to fifteen years and could be purchased in private shops (see Chapters 5 and 7). The frequent consumption of white, polished rice has been shown to increase the risk of developing type 2 diabetes and cardio-vascular disease (Mohan et al. 2010, 369-370). Through the polishing, not only the husk but also the bran and outer portions of the rice grains are removed. Having lost its fibre and mainly consisting of 'starchy endosperm,' white rice has been shown to correlate with a higher glycemic index in consumers (Hu et al. 2012, 1; Sun et al. 2010). Furthermore, many important micronutrients that can potentially lower the risk of developing type 2 diabetes and vascular diseases are lost due to polishing (Sébastia 2011, 5; Sun et al. 2010; Zhang et al. 2011, 1685-1686; Zhang et al. 2010, 1216). Indeed, my interlocutors unanimously identified the rice they ate as the main cause for the high prevalence of the illnesses described above. The explanations my interlocutors put forward, however, did not feature the polishing of rice as the main cause of this development. Instead, they mainly focused on the use of mineral fertilisers and other agro-chemical inputs, arguing that these substances affected the rice and, thereby, also the bodies of its consumers.

[164] Village residents who were in their 40s could not remember ever having eaten rice that had been husked manually (*kai kuttal arici*), while some people aged above fifty could recollect doing so.

By contrasting scientific studies on polished rice with my interlocutors' focus on the mineral fertilisers and other agro-chemicals, I do not want to suggest that one explanation is better than the other or make statements about whether either of the explanations are right or wrong. Instead, my intention here is to understand why my interlocutors put so much emphasis on these substances.[165] Since I understand all knowledge, perceptions, and narratives (including scientific knowledge) as embedded in particular social-ecological and technological systems (see Chapter 1), I attempt to answer this question by analytically situating my interlocutors' explanations, perceptions, and narratives in the context of the paddy meshwork and of the ongoing changes related to the disembedding and modernisation of agriculture, of nutrition, and of other aspects of village life.

Changes in the Qualities of Rice

All my interlocutors distinguished sharply between the rice consumed until about 10 to 15 years ago and the rice that was available now. They described the differences between the earlier and the currently consumed rice by referring to the inner or outer embodied qualities of the rice and related these changes to the perceived effects the rice had on their bodies. These narratives were similar across caste, class, gender, as well as age groups.[166]

Compared with the previous rice, which had reportedly been firm (*kaṭṭu*) and thick (*guṇḍu*), my interlocutors found the 'new' rice nicely soft (*melicu*) and small (*ciṉṉadu*). According to my interlocutors, the 'new' rice could be swallowed almost without chewing, and the rice grains moved down the oesophagus lightly without causing uncomfortable sensations. Village residents aged above 40 stated that, if they were to eat the 'old'[167] rice again, they would most likely find it difficult to chew and almost impossible to swallow (*muluñga muḍiyaadai*).[168] The times had changed and so had their taste and their bodies. Younger village residents simply stated that they did not like the 'old' rice, for the same reasons.

[165] The assumption here is that my interlocutors' knowledge and perceptions of rice, their own bodies, and the surrounding ecology are embedded in, and informed by, a particular social-ecological system of relations and interactions, which I have been calling the paddy meshwork in this study, while scientific studies of polished rice and its effect on the human body are carried out in very different contexts that are likely disembedded from the agricultural production process of the rice. The scientists' perceptions and understandings of rice are, of course, equally embedded in, and informed by, particular social-ecological and technological contexts, systems, or networks and can therefore also be analysed and described as such. For such sociological studies of scientific knowledge production, see, for example Callon 1986a; Kuhn 1964; Latour 1987, 1981; Mayr 1972.

[166] This statement excludes village residents aged below 20, who are unfortunately grossly underrepresented in this study.

[167] The former rice was sometimes compared to the variety CR1009, which was known for its thickness and also identified with Keralite rice eating preferences.

[168] I use the terms 'old' and 'new' rice here for the purposes of differentiation. There is, of course, no clear boundary between the two. Furthermore, 'old' rice in this context is not to be confused with *pazaiyadu* or *pazaiya cooṟu*, rice from the previous day, which also translates as 'old rice.' I am grateful to Dr. Harish Naraindas for pointing out the potential for misunderstanding.

While this softness was appreciated by most people, they described the ‘old’ rice as superior in almost every other aspect. According to village residents aged above 40, the ‘old’ rice used to have a much more intense taste, whereas the ‘new’ rice had almost no taste compared to it. The ‘old’ rice, further, was reported to have had a good and intensive smell, while rice now was said to hardly smell at all or to develop a bad smell after cooking. As several people explained, in the olden days, the particular rice variety would determine the taste of a meal, while the sauce was waterier than today and affected the flavour of the food only marginally. Nowadays, the sauce and vegetables had become the main source of taste and were thus applied in higher quantity and thicker consistency, whereas rice now severely lacked any taste of its own. It was not uncommon, also for younger people, to say that the rice cultivated nowadays had ‘no taste’ (*ṭeesṭu illai*). Furthermore, my interlocutors reported the contemporary cooked rice to be prone to losing its consistency and quickly becoming watery after cooling down. Several people also argued that the ‘new’ rice, especially the rice bought from private shops, could not be kept in water overnight and eaten as old rice (*pazaiyadu*) the next morning, as it would become watery or develop a bad smell. Older village residents also reported that rice used to be very filling and saturating even when consumed in small quantities, while nowadays they had to eat much bigger portions of rice to feel saturated.

My interlocutors further commented on changes they perceived in the constitution of the paddy plants and grains. One major difference they emphasised was that the new paddy varieties were much shorter in height and had a shorter life span from sprouting until harvesting, while some of the old varieties had been as tall as or taller than humans walking in the fields and had also needed a longer time to mature and be ready for harvesting. Furthermore, in earlier times paddy plants had reportedly also been less susceptible to pests or insects. According to my interlocutors, as the qualities of the rice and the paddy plants had changed, their own bodies had undergone similar changes.

Changes in Human Bodies

According to my interlocutors, similar to the ‘old’ rice, human bodies had been firm and robust in the olden days. Nowadays, their bodies had reportedly gone soft and weak, just as the rice they ate now, which had lost much of its firm texture and rich taste. Furthermore, just as the paddy plants now had a shorter life span, were not as tall, and were much more susceptible to pests and insects, humans now lived shorter lives and had weaker bodies. According to a common narrative, humans had used to live up to 80 or 100 years, their bodies remaining healthy and strong until the end of their life. Nowadays, it was said, people would live up to 60 or 70 years of age and be sicker and susceptible to disease from an early age.

My interlocutors attributed the above changes mainly to the application of high doses of various mineral fertilisers and other agro-chemical inputs, such as pesticides, herbicides,

insecticides, or fungicides, during paddy cultivation. As illustrated in Chapter 1, about 50 years ago only organic fertilisers had been used in cultivation. These had included dried cow dung (*maaṭṭu caaṇam*), leaves and twigs from trees, clothes and domestic waste, or other organic residues. Paddy seeds had been stocked and bred by farmers themselves. Since the late 1960s, however, High-Yielding Variety (HYV) seeds developed at agricultural research institutions had eventually replaced the locally cultivated rice varieties. Along with these new varieties, mineral fertilisers and other agro-chemical inputs had been adopted and gradually replaced the organic manure. Nowadays, organic manure was hardly used by anyone at all, while increasingly high doses of fertilisers and other agro-chemicals were applied during cultivation. These inputs had to be acquired from government facilities or from privately run shops.[169]

There were two distinguishable variations in the narratives that linked the changed constitution of the rice to the use of fertilisers and other agro-chemicals. Firstly, there was a consensus among my interlocutors across age groups that rice nowadays contained significantly less nutritious essence (*cattu*; see Chapter 3), while the rice that had been eaten in the olden days had possessed much more essence. According to this narrative, since the soil was no longer nourished with organic manure, it lacked nutritious essence to nourish the paddy plants. This loss of essence was, for example, said to be reflected in the decreased height of the plants. The rice, accordingly, could not pass much essence on to the human bodies which were sustained by it. This was seen to have detrimental consequences for the bodily health, constitution, and development of its consumers, who would consequently become weak and susceptible to new kinds of diseases that had not been there before. A 60-year-old male Muppanar agricultural labourer explained that after eating the rice that was available nowadays, one just wanted to lie down. Regardless of how much of the rice they ate, he said, people would not get strength. Back when natural (*iya̲rkai*) manure had been used, there had been essence (*cattu*) in the rice and the soil also had a lot of essence. Now, however, the soil had no essence. Earlier, the paddy bundles and the grains had been bigger and the rice had been tasty and full of essence and strength (*tembu*). Now, he said, urea was applied to make the crops grow, but humans had no growth (*vaḷarcci*) and no essence. They would be short (*kuṭṭaiyaa*) and weak.

Secondly, my interlocutors also, or alternatively, argued that the rice was infested with poisons from the fertilisers and other agro-chemicals used to cultivate it and that these poisons

[169] My interlocutors' statements about the effects of fertilisers and other agro-chemicals on the rice and on human bodies were by no means limited to the rice cultivated in Kaveripuram's fields but included shop and ration rice, which were consumed by most people in Kaveripuram, just as much. Even though my interlocutors could not directly observe which substances were used in the cultivation of such rice imported from elsewhere, it would have been highly unreasonable for them to assume that mineral fertilisers and other agro-chemicals were not used in similar or even higher quantities in the cultivation of those kinds of rice.

in the rice caused the hitherto unfamiliar illnesses like type-2 diabetes. The mineral fertilisers and especially the other agro-chemicals, such as pesticides, were often referred to as *marundu* ('medicines;' see Gupta 1998, 261-262). A female Pallar agricultural labourer, for example, stated that the rice available nowadays was full of chemicals; that medicines were applied to it and that they caused diseases like cancer or heart attacks.

People often combined the two explanations in their statements. One of the big Muppanar landowners, for example, stated that, 40 years ago, country fertiliser (*naaṭṭu oram*) had been used and that the food had been tasty, whereas now people used chemical medicines and sprayed and the paddy did not have essence anymore. According to him, eating the contemporary rice was like eating chemicals. They rice had no taste and was just eaten to fill the stomach, the taste now coming only from the sauces. He added that the new illnesses were caused by the use of ever higher doses of fertilisers. These, according to him, also made the paddy more susceptible to new pests, so that more and more pesticides were used. Similarly, a Brahmin man in his 60s, working as a priest for a temple outside of Kaveripuram, argued that due to the application of medicines, there was now poison inside the rice and it had no taste. People had to go to the (bio-medical) doctor now, because they ate this poison. He said that the rice nowadays had not even 10% of the essence of the earlier rice. The earlier rice had been cultivated using leaves and cow dung, while the medicines used nowadays had nothing beneficial in them.

As illustrated in this section, my interlocutors related perceived changes in the embodied qualities of the rice they consumed to perceived changes in the qualities of their bodies. They further explained these changes mainly as a result of the use of mineral fertilisers and other agro-chemical inputs and attributed the appearance of 'new' illnesses like type 2 diabetes or cancer to perceived changes in the constitution of the rice that were caused by these substances.

The Perception of Rice, Body, and Environment

To contextualise my interlocutors' narratives, it is useful to remind oneself of the specific setting in which they made a living, engaged with their bodies, rice, and the environment, and came to articulate their opinions and explanations. As illustrated in Chapter 3, my interlocutors stated that rice was important for them, because it was their main food and their main source of nutritious essence (*cattu*). This essence contained in the rice grains was reported to be derived by the paddy plants from the soil in which they were cultivated. The soil, in turn, needed to be fed with manure to have enough essence to properly nourish the paddy plants. I have further demonstrated in Chapter 3 that my interlocutors treated rice as embodying certain qualities, like nourishment, fertility, growth, or auspiciousness, that were seen both as its inherent capacities and as a result of its enmeshment with substances from the

environment. Rice, along with other items, was used in rituals, for example, to transfer desired qualities such as fertility or auspiciousness from one person to another. Rice was thus used within the paddy meshwork as a container or transmitter of embodied qualities (see Daniel 1984; Marriott 1976a, 1976b, 194; see also Chapter 1). Being the main food for children and adults but also for deities and ancestors, a major ritual item physically connecting different actors in rituals, and the main ritual food served to deities, ancestors, relatives, and other important actors, rice held the paddy meshwork together and connected different actors physically with one another and with the ecology. These aspects of rice were influential for how my interlocutors described the relationship between rice, their bodily health, and their environment.

The Link between Rice, Body, and Environment

In her study of ideas of health among the residents of several Tamil villages, Sujatha (2002) found that her interlocutors primarily linked the absence or presence of disease in the body to food intake, while other causal factors, such as hygiene or climatic conditions, were seen as secondary. She argues that her interlocutors perceived food as the most important factor in relation to disease, because other factors, such as 'hygiene' or 'living conditions,' remain outside of the body and thus do not become intrinsic to the workings of the 'body system.' Food, on the other hand, is taken in and thereby '… gets transformed from being an external input to an internal feature of the body' (2002, 85). In this view, food is thus the primary connecting element between what is 'external' and what is 'internal' to the body and the primary medium through which substances from the environment interact with the human body. Sujatha states that:

> 'The villagers do not seem to view the body in terms of anatomy and physiology. They talk about processes and entities, the crucial ones among them being *body constitution* and *quality of blood*. Blood, here, does not have a literal meaning; it is used as an umbrella concept to subsume several body constituents […]. The contact between food and the body is first established physically when the food is consumed and digested. Later, food assimilates with the body system; more precisely, it is said to combine with blood and rejuvenate it. It is as though the blood and the body constituents get constituted by the food consumed. In this sense, the body itself is conceived of as being constituted by food, and the relation between food and body is established in the most fundamental way' (Sujatha 2002, 91; author's italics).

According to Sujatha, there was a strong belief among her interlocutors that the innate qualities of different foods are assimilated into the body's system and thereby alter it (2002, 85-86). She therefore argues that the negative attitude of village residents towards food grown with mineral fertilisers and pesticides is due to:

> '… the fact that [these substances] produce reactions within the body which [the village residents] have hitherto not experienced. […] experience and the logic of elimination have helped them conclude that the food 'infested' with chemical inputs causes a host of 'heat-related' disorders which their organic foods never did' (Sujatha 2002, 93-94).

As illustrated in Chapter 3, my interlocutors, too, imagined the qualities (physical and moral) of human persons and other beings and entities as partly constituted of or influenced by the substances they ingested or with which they became enmeshed (see Daniel 1984; Marriott 1976a). Furthermore, they stated that rice was their main source of essence and thus crucial for their ability to perform bodily work, to survive, to be healthy, and to develop while growing up. Thus, it is not surprising that rice, which was the staple food and most cultivated food crop and which had visibly changed over time, was identified as the main cause of the 'new' diseases, the gradual advent of which coincided with the ever-increasing use of non-organic agricultural inputs.

As illustrated in Chapter 3, my interlocutors described the health and development of the paddy plants and grains in a similar way. They perceived the paddy plants to mainly receive their essence from the soil that nourished them, which was in turn nourished by humans through the application of manure or fertilisers; hence the comparison of paddy saplings to children that needed to be fed. Not only was the paddy perceived to derive its essence from the soil; my interlocutors further understood the substances that are in the soil and those that are applied to it as partly being assimilated by and thereby becoming a part of the physical substance of the plants and grains themselves and as influencing their embodied qualities. Gupta, in his study of post-colonial agriculture in rural Uttar Pradesh, has shown that his interlocutors similarly conceived of the 'disposition' of a crop not only in terms of its 'innate disposition' but also as dependent '… on the disposition of the inputs that had been applied to it and the disposition of the soil' (1998, 182).

Every field in the research area was treated regularly with different non-organic inputs, although a few farmers reported adding low quantities of organic manure as well. Mixtures of different fertilisers were prepared and applied to the fields manually by male agricultural labourers, while fluid inputs, such as pesticides, were sprayed by male agricultural labourers from tanks they carried on their backs (see Chapters 3 and 8). These substances were thus very present and visible in village residents' everyday lives, especially for those people who were physically involved in paddy cultivation. Given that the substances ingested by the soil were seen as constitutive of the soil's nutritious essence to a significant degree and thus by extension also of the essence of the paddy plants and the qualities they embodied, it is logical that my interlocutors identified the fertilisers and other agro-chemical inputs as mainly responsible for changes in the constitution of the plants. That my interlocutors put so much emphasis on the constitution of organisms through the intake of substances may have also

been the reason that they did not put much emphasis on the polishing of the rice or on the fact that the rice cultivars themselves had also changed as factors in relation to bodily health.[170]

It is important, however, to mention the differences between Sujatha's and my findings here, too. Sujatha's interlocutors stated that agro-chemical inputs led to their food's being excessively 'heat' and 'wind' producing and thus incompatible with their hard work in the sun. According to Sujatha, the intrinsic qualities of the food were seen to have changed, resulting in what her interlocutors perceived as 'gross distortions in relations among food, body, work and ecology,' diseases being the result of this incompatibility or disturbed balance between the different elements (Sujatha 2002, 95-97). My interlocutors, on the other hand, referred to **the lack of nutritious essence or strength** in the rice plants **per se**, which they saw as responsible for making their bodies weak and susceptible to disease. Furthermore, some of them described pesticides and other 'medicines' applied to the rice as 'poison' rather than as producing excess heat or wind or as something that could potentially be counter-balanced. In fact, these new fertilisers and 'medicines' were portrayed as exclusively negative vis-á-vis the body.[171] This begs the question why my interlocutors expressed such a deeply negative attitude towards mineral fertilisers and other agro-chemical inputs per se, all of which they portrayed as inherently dangerous. To understand this, a closer look at how my interlocutors engaged with and perceived these inputs is warranted.

Alienation of Paddy Cultivation

In this section, I argue that my interlocutors' descriptions of the rice as lacking nutritious essence and being infested with poisonous 'medicines' were related to their increasing alienation from the ecological processes of paddy cultivation. Farmers were dependent on mineral fertilisers and other agro-chemical inputs to achieve yields high enough to allow them to make some financial gains when selling their paddy or at least be able to maintain cultivation. As illustrated in Chapter 4, these inputs had to be procured through networks of brokers. Farmers were dependent on these brokers to provide them with the inputs and services they needed in sufficient quantities and of sufficient quality at the right times.

[170] While some of my interlocutors did refer to polishing as removing nutrients from the rice grains (see Chapter 5), this explanation was less frequently provided and much less emphasised by my interlocutors.

[171] Sujatha (2002, 94-95) also cites one of her interlocutors as referring to the agro-chemical inputs as ‚poisonous medicines' and she states that her interlocutors saw foods cultivated with agro-chemicals, to which their bodies had reportedly not gotten used even after more than 15 years of consumption, as incompatible with their lifestyle. However, she also notes that her interlocutors speculated that the foods may ‚… perhaps be less harmful to the middle-class urbanites, who need not have to work in the hot sun, and who can consume ‚cooling' foods, such as milk, curds, etc., and who can manage with and afford hospital medicines' (2002, 96).

Depending on Dangerous Substances

Mineral fertilisers and other agro-chemical inputs could be purchased either at private shops in the nearby towns or could be procured from the government-operated Farmers' Society or the agricultural extension office, where they could be purchased at subsidised rates or were sometimes distributed as free subsidies to registered farmers. However, the supply of inputs at the Farmers' Society was reportedly highly irregular and unpredictable and often insufficient. Cultivators thus purchased most of the inputs they used at private shops, where they were usually available. However, due to the large quantities of fertilisers used in cultivation, at times of peak demand there were sometimes impasses and farmers were left without the necessary fertilisers. In late November 2014, for example, there was suddenly no more urea available in the area. Purchasing all the required inputs at different stages of the cultivation process was time-consuming, but it was above all expensive. Farmers complained about the high prices of the mineral fertilisers and other agro-chemical inputs they had to purchase. When I asked why they did not cultivate their paddy organically, several farmers answered that apart from the fact that nobody owned cows and oxen in sufficient quantity anymore, they would have to forego on several cultivation seasons until the soil in their fields had regenerated, which they could not afford to do. Cultivators were thus dependent on these inputs and on the brokers that provided them, while they had no control over the production, distribution, pricing, and availability of these inputs. Cultivators did not know where the inputs they purchased originated, how they were produced, and what substances they contained, either. From interviews, conversations, and observations it became clear that my interlocutors perceived many of the substances that were applied to the fields to fertilise or treat the paddy plants as alien and did not understand their composition. Given that most of my interlocutors did not know how the fertilisers and other substances worked and what they contained, these substances constituted black boxes for them to a much greater extent than the rice they purchased in shops for consumption (compare Chapter 5). The substances' perceived foreignness and obscure composition were reflected in the way my interlocutors talked about these substances. When distinguishing them from organic manure, they used adjectives like 'English,' 'artificial' (*ceyaṟkai*), or 'chemical' (*iraacayaṉaa*). While the particular effects and dosages of the common fertilisers and pesticides had become part of farmers' practical knowledge (see Chapter 3), it became clear that there was, at the same time, a significant amount of uncertainty concerning many of the more specialised agro-chemical inputs. A landowner from the Paraiyar Street, for example, told me that when his paddy plants were affected by insects, he would take an affected plant to the shop and show it to the shopkeeper who would tell him which medicine, in this case insecticide, to apply. He also added that he would not look at the instructive texts on the medicine packets but would simply apply the medicines. He further said that if, for example, the ear of the paddy was not properly green

after applying a certain medicine, he would show a plant at the shop and they would give him another medicine to counterbalance the effects of the first medicine. This scenario, where shop owners or employees had to take on the role of expert advisors, was fairly common. In fact, the owner of a fertiliser shop in the vicinity confirmed that he was regularly approached by farmers to guide them on all sorts of decisions regarding which pesticides or herbicides to apply under which conditions and in what quantities. While I was interviewing him, he interrupted the interview to advise a customer precisely on such matters.[172]

This advisory role brought with it the problem of accountability in the case of crop damage. In late October 2015, for example, while I was speaking with the owner of another fertiliser and seed shop, a young man, frightened and close to tears, entered the shop and started a discussion with the owner. He had been threatened with a lawsuit by a field owner who, as it turned out, was new to agriculture and had asked the shop for advice on weed killers and insecticides. The young man was employed at the shop and had been instructed by the shop's owner to apply a certain weed killer and a certain insecticide to the field owner's fields. However, the young paddy plants had apparently started to develop ears much too early and stopped growing, while the weeds had continued to grow and the insects had not died, either. After going on for about ten minutes and attracting several onlookers, the discussion ended with the shop owner declaring that the field owner should come to the shop. The shop owner's wife further advised the young man to tell the field owner to sue the company that had produced the medicines, as it was not the shop's fault. Given that shopkeepers could simply blame the companies or the farmers themselves and that the companies were out of reach for most farmers, the risks of applying inputs according to the shopkeeper's instructions lay mostly with the farmers.

Given the power of the shops as brokers of knowledge and inputs and given that the companies that produced the inputs remained elusive for the farmers, it is not surprising that there were rumours among cultivators about faked and thus ineffective or dangerous inputs.[173] One of the major cultivators from the Muppanar caste, for example, complained during an interview that the urea that could be bought nowadays was all fake (*kalappaḍam*). Another big

[172] Indeed, the knowledge and products generated by disembedded 'expert systems' can often also be understood as disembedded in the sense that they may be designed to be valid and appropriate regardless of context and beyond particular times or places (Giddens 1990, 27-29). Accordingly, disembedded knowledge and products run the danger of being too generalised and simplified, one-size-fits-all solutions that may require significant alteration or modification in particular contexts in order to be effective (Scott 1998, chs. 8 and 9). Regarding the dosage and proper application of fertilisers and other inputs, farmers thus generally seemed to put much more trust in their own experiential knowledge, the advice of other cultivators, or the instructions by shopkeepers, than in the generalised instructions provided by governmental publications or on the packages of the inputs.

[173] Indeed, during an inspection in Vellore district in late 2014, inspectors seized 44.670 tons of fertilisers and 472 litres and 4572 kg of pesticides in 13 shops due to violations including 'sale without licences' or 'sale of stocks purchased from unapproved firms' (Murthi 27.10.2014).

Muppanar farmer during an interview complained about in his opinion unnecessary and expensive new inputs that unsuspecting farmers were talked into buying by shopkeepers.

The uncertainty about the quality and effects of agro-chemical inputs among village residents was amplified by the fact that they had noticed stark changes in the flora and fauna of the paddy fields. Some of my interlocutors thus related what they perceived as the decay or poisoning of rice and human bodily health to observations of the perceived effects of fertilisers and other inputs on other animals and plants in the rice fields. Several of my interlocutors mentioned that the fish that had once lived in the irrigation channels had vanished. A Padaiyacci farmer stated that animals like crabs and worms had carried out important tasks in the ecology earlier but were now killed by the application of pesticides. He added that the straw of paddy treated in such a way could not be sold anymore. Sparrows, he said, died if they ate this paddy. A Muppanar farmer complained that the crabs and snails that lived in the fields had been good for the heart when eaten, but now, due to the fertilisers, they died and their population had decreased. A government officer standing next to him added that the snake population had also decreased. He further expressed the view that prior to the introduction of fertilisers, which, according to him, had first been used in China, there had been no diseases in Tamil Nadu, apart from such phenomena as itchy skin, while the sicknesses that now affected Tamil people resulted from the fertilisers. While my interlocutors were very concerned about the perceived poisonous effects of fertilisers and other agro-chemicals, the lack of cow dung and the perceived resulting loss of essence in the soil and the rice was also a matter of great concern for them.

Nature and Culture, Modernity and Tradition

When speaking of organic manure, my interlocutors often subsumed different kinds of organic fertilisers under the umbrella terms *tozu uram or maaṭṭu caaṇi.* Both terms refer to cow dung.[174] Indeed, all my interlocutors considered cow dung to be the most essential organic fertiliser. They explained that about 50 years ago, almost every household had owned cows, while many landowners had also owned oxen that were used to plough the fields. Cow dung had been collected in the cow sheds and applied to the fields each year before the first cultivation season. From the 1980s onwards, tractors had become popular, and using oxen for ploughing had gone out of fashion. Consequently, all ox owners had sold their animals. By the time I started the field research in 2014, there was not a single ox left in Kaveripuram. According to my interlocutors, the number of cows had also drastically reduced. Given that mineral fertilisers delivered much higher yields, being able to produce organic manure from cow dung was no longer of primary economic importance. Many of the wealthier, landowning village

[174] According to Muruganandam, the word *tozu* refers to a cowshed, whereas *uram* can be translated as strength. The word *maaṭṭu caaṇi* (coll. for *maaṭṭu caaṇam*) means ‘cow dung.’

residents had sold all their cows, finding it more convenient to purchase milk. With cultivators lacking the necessary cows or shying away from the extra expenses of acquiring and applying cow dung, the latter was no longer used in most fields. Nevertheless, the importance of cow dung in providing the soil with nutritious essence was strongly emphasised by virtually all my interlocutors. In fact, my interlocutors usually contrasted cow dung with mineral fertilisers as **the** example for what healthy agriculture was to look like.

My interlocutors often referred to organic manure as 'natural' in opposition to 'artificial' mineral fertilisers and other 'artificial' agro-chemicals. What can be translated as 'nature'[175] or 'natural' here is the word *iyaṟkai*, which, according to Kent, designates '... that which appears and grows spontaneously' (Kent 2013, 41). This term can be contrasted with *ceyaṟkai*, which can be translated as 'culture' (or as 'artificial')[176] and which Kent (2013, 70) describes as '... that which is made, crafted, or embellished beyond its natural state...' including that which is 'deliberately cultivated' (ibid. 41). During the research, I asked various people whether they thought that paddy was 'cultural' or 'natural'. A middle-aged non-Brahmin woman, who did not cultivate paddy or work in paddy cultivation herself, told me that paddy was both **cultural** (because it was planted by humans and needed their attention and care) and **natural** (because when cultivated it grew by itself). She said that paddy had been solely **natural**, but humans had grabbed it (*paḍaicci pooṭṭanga*) and started cultivating it, and thereby turned it into **culture**. The same, she said, was true for coconut trees, which were still more **natural**, because humans did not need to take that much care of them. Following the same logic, she told me that coconut trees were **natural**, but the act of planting them was **cultural**. A Paraiyar couple who both worked intensively in paddy agriculture, on the other hand, was convinced that paddy was **cultural**, since it was planted and nurtured by humans, whereas coconut trees were more **natural**, because, even though they were planted by humans (**cultural**), they more or less grew on their own. Paddy fields, they said, were also **cultural**.

While these answers are close to Kent's definitions of the concepts as cited above, a middle-class Muppanar paddy and sugarcane farmer from a neighbouring village answered my questions differently. He told me that coconut trees were **natural**, since people did not use any fertiliser to make them grow, which, according to him, meant that they grew naturally ('*iyaṟkaiyaa*'). He went on to say that paddy was also **natural**, since it grew by itself as well, while husked rice (*arici*) was **cultural**, as it had been cleaned and polished in the rice mills, thereby becoming **cultural**. When I asked him, whether paddy could be called **cultural**, because it was planted by humans, he answered that it was **natural** when one planted it, but was made partly **cultural** by humans afterwards, due to the application of mineral fertilisers, so that paddy nowadays was only about 60 percent **natural** and 40 percent **cultural**. Also

[175] See Suriya Tamil Tamil English Dictionary (Suriya 2013, 76).
[176] According to the Suriya Tamil Tamil English dictionary (2013, 239), *ceyaṟkai* translates as 'artificial.'

vegetables, he said, were **natural** and so were the fields (*vayal*), even though humans had modified the landscape in order to shape them. It took me a while to understand that he apparently defined **cultural** (or artificial) as everything that was non-organic, whereas **natural** designated everything organic for him. 40 years ago, he explained, there had been no fertilisers. When only cow dung was used (*maaṭṭu caaṇi*), both plants and fields were '100 percent' **natural**. The rice produced naturally, he argued, had had a lot of strength and taste. In the **cultural** rice, which was produced using unnatural fertilisers and other chemicals, there was no taste. Intrigued by this usage of the words **natural** and **cultural**, I started to realise that people often used these words to distinguish between organic and mineral fertilisers and the rice cultivated using one or the other.[177] Indeed, the designations 'artificial' and 'natural' and related words often featured in my interlocutors' analyses and explanations of what they perceived as a crisis in health and ecology. For example, a senior Muppanar man, who had worked as an agricultural labourer before, used the designation 'English' for mineral fertilisers and contrasted them with the adjective 'natural' for organic manure. He stated that there was no more essence in the soil, because English fertiliser was applied to it. Real fertiliser, he argued, consisted of cow dung and leaves from the trees. Since only English medicines were applied nowadays, there was nothing in the soil. The soil had died, he said.

Similar terminology and ideas have been documented in India in relation to distinctions made by village residents between bio-medical preparations and other kinds of medicine, such as herbal preparations. In his study of 'folk health ideology' in Dakshina Kannada, a district in the Indian state of Karnataka, Nichter argues that his interlocutors perceived what they called 'English medicine' – that is bio-medical medications (see also Langford 2003, 287) – as being very 'powerful' and offering quicker cures than herbal medicine but also as being quite detrimental to bodily health in the long run, eventually leading to 'bloodlessness and weakness' (Nichter 1980, 225, 228). Nichter's interlocutors also considered 'English' medicines as heating, similar to how Sujatha's interlocutors perceived mineral fertilisers. According to Nichter, being heating points towards the perceived quick and powerful effects of these medicines, but also indicates that these effects are uncontrollable and lead to blood loss and weakness (Nichter 1980, 228-229). Indeed, one of Nichter's interlocutors is cited as explicitly comparing 'English' medicines with the mineral fertiliser urea, stating that both have powerful short-term effects but the former makes the body weak while the latter leaves the soil 'hot, acidic, and useless' (interlocutor as cited in Nichter 1980, 228). The implication both in

[177] There is also an increasingly popular 'natural farming' discourse and a growing body of 'natural farming' literature in Tamil Nadu, which has consciously coined the term *iyaṟkai*. A popular proponent of this type of agriculture was the agricultural scientist and farming activist G. Nammalvar, who passed away in December 2013 (Karthick 31.12.2013). His publications include relatively compact and cheap books, which are available in book shops. G. Nammalvar also featured prominently in both English and Tamil-language newspapers. He further appears in many YouTube videos and has several Facebook pages dedicated to him.

Nichter's study and among my interlocutors is thus that alien substances or chemicals enter the body and the surrounding ecology and weaken it to a point where simple adaptation does not suffice to counter their detrimental effects (Nichter 1980, 229), particularly the loss of blood, or loss of essence in this case. 'English medicines' was, indeed, a term that my interlocutors, too, used for bio-medical preparations, such as the various pills that are available in pharmacies. I also heard some people use the expression 'English *viyaadi*' (English sickness) for type 2 diabetes and other ailments with foreign names that in their perception had only recently become prominent and which they associated with the foreign agro-chemical inputs and the 'new' rice. According to this view, the 'natural' manure that had been used to fuel the paddy ecology before had been replaced by 'artificial' substances that were foreign and harmful. This had altered the ecological relations and processes in the paddy meshwork profoundly. The organic manure had itself been the product of the local ecology, as the cows producing the manure had eaten straw from local paddy and the leaves used as organic fertiliser had come from local trees. With the feeding of 'artificial' fertilisers into the ecology, however, this circular flow of 'essence' had been disrupted and replaced by a system of external inputs that entered and passed through the ecology and subsequently people's bodies. In the view of my interlocutors, the result of this lack of essence and infestation with alien substances was the development of alien diseases in their bodies. A senior male agricultural labourer from the Pallar Street suffering from type 2 diabetes argued the strength that existed earlier was all due to cow dung but that the essence had now completely gone and because of that, humans got sick. He stated that the medicines from the shops that were applied to the fields now would kill the crabs and the insects.

The lack of essence to which my interlocutors referred was thus in their view not primarily a consequence of the mixing of fertilisers with the soil, but rather a result of a lack of cow dung and organic manure. The replacement of cow dung as one of the most essential drivers of the cyclical ecology of life in the paddy meshwork with alien and unknown substances had created a major rift in my interlocutors' perception of rice, themselves, and the ecology as parts and products of the paddy meshwork. Furthermore, given that village residents had no insight into – or control over – the 'artificial' substances that entered and transformed the formerly cyclical paddy meshwork, the latter arguably also came to embody the larger dynamics of industrial agriculture through which my interlocutors lost control over more and more aspects of the production of their food and the reproduction of their bodies and their soils.

The resulting alienation of my interlocutors from the rice they cultivated, sold, purchased, and consumed was expressed strongly in the way many people now used the adjectives that can be translated as 'nature' and 'culture' (see above). According to Kent, in 'Tamil discourse,' *ceya̲rkai* as 'civilisation' or 'culture' is usually valued higher than 'nature,' as

it '... arises only with the subduing and controlling of nature, whether embodied in women, animals, or the lower gods of the pantheon' (Kent 2013, 41). However, this was decidedly not the case in this context. 'Natural' or 'nature' (*iya̲rkai*) was now used by many people to refer to paddy that, while domesticated, was cultivated organically and which they valued higher than its opposite. 'Culture' (*ceya̲rkai*), on the other hand, did not signify positive development and civilisation in this context anymore, but modernity run wild. My interlocutors used it to designate something artificial, something that did not contain or embody the natural essence on which the original Tamil civilisation was based. Furthermore, it designated something alien that originated from outside of the village, its social relations, and its ecology. Some of my interlocutors gave the feeling of deterioration associated with this dangerous modernity further weight by stating that we had entered the age of *kali* (*kali yukam*), 'the final, most degenerate age in the Hindu cycle of time' (Patton 2000, 810; see also Sarkar 1992, 1545). Those of my interlocutors who used this term argued that the degeneration of their food, of their bodies, and their environment was related to living in the *kali* age, where everyone only looked out for themselves and the only thing that counted was money (compare Mines 2005, 82). Other terms used by my interlocutors that emphasised the perceived connection between the alleged moral, spiritual, and physical degradation and the rule of money and technology were 'computer' or 'laptop age' (*kampiyuuṭar kaalam* or *laapṭap kaalam*). While most of my interlocutors did not blame any particular actor or entity for these changes, some of my Brahmin interview partners saw 'the West' as responsible for these developments. A Brahmin Priest, for example, criticized what he saw as the destructive influence of the West on India. Addressing me, he stated that we (the West) had messed up India and its agriculture under the pretense of research and reforms. He said that there had been divine power in rice, but that it had gotten lost with technology. The creations of the West, he argued, were all machines and relied on 'moneypower' and not on 'manpower.' Indians, he argued, believed in manpower, in the strength of the soul. With the arrival of electricity, he stated, the vibrations of God would go away.

Millets: From Poor-People's Diet to 'Traditional' Health Food

Given that rice in the context of nutrition had become associated with danger and sickness, millets increasingly established themselves in my interlocutors' perception as a healthy counterpart to unhealthy rice. Having gained new prominence as a health food, millets are being increasingly sought-after by the urban upper-classes and middle-classes, but also by many rural residents in Tamil Nadu (see Chera 2017, Chera 2020). This is all the more interesting, since millets had become stigmatised as a poor man's food with the increasing prevalence of rice over the last century (Chera 2020, 104; Sébastia 2011, 5; Singh 2015,

115).[178] Whenever I talked to members of the urban middle and upper classes in Tamil Nadu about food and health, they inevitably brought up millets as the healthy alternative to white rice, which they saw as causing type 2 diabetes and other nutrition-related diseases. In this context, millets were often portrayed as the typical village food and the traditional Tamil diet, that made people strong and healthy. This opposition between white rice as injurious to health and millets as the new health food is perpetuated in different mass media, such as newspapers and food blogs.[179] The boosted production of rice as a staple food, which had been much desired in the 1970s and 1980s, has increasingly come to be seen as a negative development that has left people sick, also among scientists and policy makers, who now shift their focus toward millets and pulses (see Sébastia 2011, 5). The intensification of millet cultivation, for example, was part of The Tamil Nadu State Government's strategy for achieving a 'Second Green Revolution in Tamil Nadu' as outlined in the Tamil Nadu Agricultural Department's Policy Note for 2013-2014 (Damodaran 2013, 14-20; see also Shivakumar 03.06.2013). The Policy Note states that:

> 'Millets, which are traditionally cultivated over years suffered a setback. Changing food habits of the people, high nutritional content and adaptability to adverse soil and climatic conditions have necessitated the promotion of millets in a large scale. The millets provide multiple securities such as food security, fodder security, health and nutritional security and livelihood security' (Damodaran 2013, 20).

M.S. Swaminathan, who is considered the 'father' of the Green Revolution in India, has also recently taken on to promoting millets as essential for 'healthy eating' (Express News Service 24.11.2014). Chera, in her ethnographic study of narratives and discourses surrounding millets in the Madurai area, shows that not only are millets promoted as a health food by public campaigns, NGOs, and health and medical professionals, but that there are further conceptions of millets as 'traditional' Tamil food grains that are juxtaposed with what is perceived as unhealthy and invasive, 'foreign' foods that cause various health issues and diseases among Tamils, such as noodles or pizza. She also notes that while this identification of millets with being Tamil can be seen as part of larger nationalist discourses in India, it simultaneously connects millets to the ancient ecological zones or *tinais* (see Chapter 1) and thus specifically to Dravidian and Tamil identities rather than to ideas of an Indian national tradition (Chera 2017; Chera 2020, 77-89).

[178] With cheap rice imports during the colonial period and later with the increase in rice production due to the Green Revolution and the Tamil Nadu State Government's efforts to provide people with rice through the Public Distribution System and the TNCSC (see Chapters 1, 5, and 7), the formerly widely used millets had increasingly become displaced by rice (Bruckert 2016, 460; Harriss-White 2004, 53).
[179] See, for example, Thiagarajan 12.04.2012; Viswanathan 08.11.2014; Di̲nakara̲n 06.11.2017; or Malini 26.03.2014.

One noon in January 2015 when I was driving back to Kaveripuram from a nearby town, I saw a middle-aged man standing behind a big wooden cart with two large clay pots and several small plastic pots on top of it at the side of the road. A paper sign atop of the cart indicated that the clay pots contained *kammaṅkuul* and *kezvarakuk kuul*, that is gruel (*kuul*) made from pearl millet (*kambu*) and finger millet (*kezvaraku*). It read:

> ‘Clean kammaṅkuul
>
> Kezvarakuk kuul
>
> Also for take away [‘parcels available’]
>
> Pot 10rs., cup 5rs.’

I immediately stopped to make enquiries and the vendor immediately started advertising his product to me, telling me that pearl millet *kuul* was well ‘cooling’ for the body. It turned out that he lived in a nearby village. He told me that he would go to the town every morning, around 5 or 5.30am, to sell *kuul*. Since, due to severe pain in his leg, he could no longer carry out his former profession as a daily wage labourer working mainly in sugarcane, he had started this work approximately five months earlier. When I asked him whether *kuul* was healthy, he told me that it was very good against ‘sugar,’ ‘pressure,’ ‘heart attack’ and other diseases. He further explained that the clay pots (*maṇ paaṉai*) were also very healthy, as they would keep the *kuul* cool. The millet gruel was very popular among bypassing village residents and town dwellers and I was one of the last people to receive gruel before the pots were empty on that day.

In Kaveripuram, men from the non-Brahmin and Dalit castes aged 40 and older remembered consuming millet gruel in their childhood, but usually stated that their families had abandoned consuming millets later. Women who had moved to Kaveripuram after marriage from dryer areas, for example to the north of Kollidam River, were still more familiar with millets and millet-based foods, while male and female residents of Kaveripuram in their 20s and younger were used to diets almost completely based on rice. They usually stated that they did not eat millets and did not like them either. According to my older interlocutors, most of the millets consumed in Kaveripuram several decades ago had been imported from the northern areas in exchange for paddy grains.

Several of my interlocutors of various castes had taken to preparing different foods based on millets or whole grain wheat flour (*goodumai maavu*; *aṭṭa*) at home again. Some of the wealthiest non-Brahmin families in Kaveripuram now used millets and whole wheat flour regularly. They reported to not having used millets (after their childhood) due to considering them poor people’s food, but had started consuming them again, for example as a treatment for nutrition-related maladies, such as type 2-diabetes. Some of my Brahmin interlocutors in

and around Kaveripuram also consumed millet and wheat foods at times and reported to their being healthier than rice. Agricultural labourers and other poorer village residents, however, did not consume millets on a regular basis, even though some of the older agricultural labourers stated that they fondly remembered drinking millet gruel while working in the fields, which they described as giving them a lot of strength.

The emphasis put on millets as health foods by health professionals and medical doctors and the stigma that was increasingly attached to rice as the cause of ailments was reflected in the strong opinion on this matter of a Pallar female agricultural labourer, who argued that the people who would eat pearl millet would not diseases, whereas those who would eat soft rice, which had no essence, would. She stated that nowadays doctors would tell people to eat pearl millet but that people would not do it.

When asked to compare rice with millets, my interlocutors, regardless of gender, caste, and class, juxtaposed rice as causing diseases with millets as a health food or, given that public campaigns, doctors, and newspapers now recommended them as preventing or easing nutrition-related diseases, even as 'medicines' (compare Sébastia 2011, 9). A non-Brahmin farmer and agricultural labourer, for example, commented that millets were now treated like medicine. He clearly stated that paddy was not healthy in comparison with millets, but also observed that millets had become expensive, being sold in the shops for 40 or 50 INR per kg. He further commented on a perceived lack of variation in millet-based recipes, stating that they could only be consumed as gruel. Indeed, given that Kaveripuram was situated in a paddy-growing area, many of my interlocutors seemed to lack knowledge of millet recipes other than for gruel and *doocai*. Some women who had come from millet-cultivating villages, however, demonstrated a much more sophisticated knowledge of millet recipes, even though they might not be able to afford millets here. Indeed, since millets had to be purchased at high rates in shops, they were not a financially viable alternative for many village residents.

While my interlocutors stated that millets were much healthier than rice, their explanations for why they were healthier also seemed to reflect their concern with the perceived disturbance of the paddy meshwork and the negative influence of alien substances on the food. Some people, for example, stated that millets were cultivated using much less or no mineral fertilisers or other agro-chemicals, while one wealthy non-Brahmin landowner claimed that millets were of a different physical constitution such that they did not mix with the fertilisers and other agro-chemicals like paddy did and therefore did not carry them into the human body. Thus, since agro-chemical inputs featured so prominently in my interlocutors' perception of the rice they now associated with disease, the millets, as its opposite, were discursively constituted as embodying pure food unaffected by these pollutants, the underlying understanding of food grains as being constituted in part by the substances they ingested being applied to millets, too.

Conclusion

In this chapter, I have described how my interlocutors came to see the mineral fertilisers and other agro-chemicals entering the paddy fields as responsible for a perceived lack of nutritious essence and for the presence of poisonous substances in the rice they consumed. I have further shown that they saw these changes in the rice as responsible for weakening their bodies and causing non-communicable diseases like type-2 diabetes, hypertension, and cardio-vascular diseases. I have argued that my interlocutors' explanations and narratives regarding this issue have to be understood as inspired by their understanding of their bodies, rice, and the soils as enmeshed with one another. My interlocutors perceived paddy plants and human bodies as entities constituted in part through the enmeshment with their social-ecological environment, most prominently through the ingestion of different substances. According to this perspective, the substances with which actors and entities are fed shape or influence their physiological features and constitute their qualities to a significant extent. In this manner, substances ingested by the soil were seen as transferred through the paddy plants and grains into human bodies, thereby changing the composition and physiological make-up of the latter (see Sujatha 2002; compare Daniel 1984; Marriott 1976a). In my interlocutors' perceptions, the application of increasing doses and varieties of mineral fertilisers and other agro-chemical inputs fundamentally affected and altered the constitution of the soil, of their staple food, rice, and of their own bodies. They thus linked it to the rise of type 2 diabetes and other nutrition-related, non-communicable diseases, the rise of which had coincided with the increasing application of mineral fertilisers and other agro-chemicals. Additionally, my interlocutors linked the lack of cow dung, which in their perception occupied a major role in nourishing the soil and thereby sustaining the ecological basis of agriculture and nutrition, to a corresponding lack of essence in soils, paddy plants, and humans.[180]

I have demonstrated that my interlocutors characterised the 'medicines' that were applied during cultivation as alien objects and depicted the rice cultivated using them as a partially artificial, hollow product that was devoid of organic essence and caused new kinds of diseases. I have argued that these depictions and their juxtaposition with 'natural' or 'traditional' foods, such as the 'old' rice or millets, and strong human bodies nourished by essence from paddy cultivated using 'natural' cow dung can also partly be interpreted as my interlocutors' commentary on their increasing alienation from the cultivation of their staple food. As agriculture had become increasingly industrialised and dependent on outside

[180] Public discourses, such as the public critiques of industrialised agriculture by vocal organic farming activist G. Nammalvar certainly contributed to my interlocutors' perception of mineral fertilisers and other agro-chemicals as the main causes of bodily and environmental degradation. However, such narratives would probably not have been as successful if my interlocutors had not applied the meshwork or substance perspective described in this chapter and in Chapter 3 or if the inputs used in agriculture had not been as black-boxed, alien, and uncontrollable as they were.

networks and agro-chemical inputs had to be purchased at high rates and without knowing their contents or the relations of their production, my interlocutors had lost control over the substances that were used to drive the ecology of the paddy fields and thereby also to fuel their own bodies.

In Chapter 3, I described how my interlocutors enacted paddy and rice in rituals as embodying the continuity of life based on their capacity to grow and multiply and to nourish and sustain life. In this chapter, I have shown how, when discussing changes in agriculture, nutrition, and society, my interlocutors enacted rice as an artificial imposition causing disease and as associated with the larger decline of society and ecology under a modernity out of control. In this context, the rediscovery of millets as healthy alternatives to polished rice – and as the traditional Tamil diet – among scientists, policy makers, and in popular media likely resonated with my interlocutors, who also invoked millets as an embodiment of health, strength, and purity in opposition to what they perceived as the unhealthy and polluted rice they now consumed. Unfortunately, few of them could afford to eat millets regularly.

Chapter 7: The Enactment of Socio-Economic Distinctions through Rice Consumption

In this chapter, drawing on Bourdieu's (1984) theory of 'distinction,' I illustrate how my interlocutors distinguished individuals and families of different castes and different socio-economic status according to which kinds of rice they ate. I further argue that my interlocutors prominently experienced and described such caste and class distinctions in the contexts that I describe here in relation to the embodied qualities of the different kinds of rice they and others consumed.

I first show that my interlocutors unanimously distinguished those people who cooked and ate only raw rice (*paccai arici*) from those who cooked and ate mostly parboiled rice (*pulunīgal arici*). The former was consumed regularly only by Brahmins and vegetarian Vellalars, while the latter was consumed by all other, non-vegetarian castes in Kaveripuram. I demonstrate that my interlocutors enacted these two groups as possessing different embodied qualities and bodily constitutions and that they related these perceived bodily differences to perceived differences between the embodied qualities of raw and parboiled rice. I further show that neither group was ashamed of their own consumption preferences and perceived embodied qualities but that people either described differences neutrally or even elevated their own preferences and qualities over those of the other group. This corresponds with Kapadia's (1995, 5) argument that – rather than subscribing to 'Brahmanical' values – non-vegetarian non-Brahmin and Dalit castes enact their own moral worlds and distinguish what they understand as their 'Tamil' values and ways of being from what they understand as 'Brahmin' values.

I contrast these long-standing, embodied caste distinctions with new class-based distinctions of status that were enacted based on which type of rice village residents could afford to consume and offer to guests. These distinctions had arisen because of the increasing availability of alienated rice from outside of the village and thus the increasing consumption of shop rice and ration rice (see Chapter 5). In these distinctions, caste did not play a significant role, since the rice in private shops was not part of the relations of production in the paddy meshwork but arrived from elsewhere through networks and the only criterion for access to it was a disembodied property, its price (see Chapter 5). It was thus accessible to everyone, regardless of caste membership or access to land, provided one had the financial ability to purchase it. Similarly, practically every family was entitled to receive ration rice (see Chapter 5). Contrary to the caste-based distinctions in relation to raw and parboiled rice, the availability of differently priced quality grades of rice at private shops and of free ration rice thus made it possible for village residents of all castes to compete for status and be compared with one another according to which rice they could afford. This, as I will show, caused poor village residents, who could only afford to consume and serve guests with ration rice, to feel humiliation and shame, while for those who could afford high quality rice, their ability to do so

became a source of pride. I illustrate that such stigma and shame – or pride and respect (*mariyaadai*) – stemming from consuming and serving certain kinds of rice were prominently experienced by my interlocutors through their physical engagement with rice and also prominently described by them in relation to the embodied qualities of the different kinds of rice.

Distinction and Symbolic Violence: Taste and Habitus

Bourdieu argues that consumers' tastes, whether in art, food, or any other consumable goods, are determined by – and thus an expression of – the former's class positions in society.[181] Based on their taste, which is a function of their 'habitus,' individuals distinguish between different goods in specific ways and thereby, through the distinctions they make, distinguish themselves from members of other classes, who make different distinctions. Based on the distinctions they make and taste preferences they display, they are also classified by other individuals as a member of a specific class (1984, 1-2, 5-6, 100-101).

According to Bourdieu, the habitus of an individual is a socio-culturally acquired set of dispositions that structures how this individual perceives different beings and things and conducts his or her body, through manners, expressions, the performance of tasks, and other practices, in the world. In short, it structures how an individual perceives the world and acts in it (Bourdieu 1984, 169-175; King 2000, 423).[182] An individual's habitus, in turn, is shaped by his or her 'conditions of existence,' which primarily arise from the individual's socio-economic position, meaning his or her economic capital (wealth, income) and his or her cultural capital (knowledge, abilities, and conduct based on education, family socialisation, et cetera). Individuals facing similar 'conditions of existence' and a similar distribution of economic and cultural capital thus share a habitus and therefore constitute what Bourdieu calls an 'objective class' (Bourdieu 1984, 14, 23, 101, 113-24, 169-175). Because different classes possess different habitus, members of each class are identifiable based on their habitus. Accordingly, class distinctions in any society are experienced and become meaningful – that is are enacted - through the distinction of different habitus, which are manifested in the activities and behaviour and the taste expressions of different individuals. These differences in behaviour and taste preferences tend to be perceived as 'natural' by social actors (Bourdieu 1984, 172).

[181] Bourdieu does not distinguish between taste for works of art, taste in clothes, or taste in basic foods, arguing that in order to understand the way taste preferences express and create distinctions based on class position, all lifestyle preferences, whether related to luxury items or items of basic needs, have to be analysed as expressing the same class-specific modes of making taste judgements (1984, 99).

[182] Bourdieu defines the habitus as a '… system […] of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practices and representation' (Bourdieu 1990, 53, cited in King 2000, 423). Since the habitus encompasses both 'the capacity to produce classifiable practices and works, and the capacity to differentiate and appreciate these practices and products' in relation to taste classifications, the habitus thus acts as 'both the generative principle of objectively classifiable judgements and the system of classification [...] of these practices' (Bourdieu 1984, 170).

The taste and habitus of the socio-economically dominant classes (those classes with high amounts of economic or cultural capital or both) in a society are therefore to a great extent naturalised as the standard or proper forms of conduct and taste. Failure to adhere to such norms, either due to insufficient economic capital or due to a lack of the cultural capital required to display what is considered the proper behaviour, make what is deemed the right choices, demonstrate the required kind of taste, consume using the expected manners, or express appreciation in ways deemed appropriate, thus often serves to perpetuate feelings of superiority and rightful privilege among members of the dominant classes and feelings of inferiority and shame among those unable to adhere to the dominant taste norms or to convincingly embody the dominant habitus. The, in this manner, dominant habitus and taste are naturalised as 'the right way of being and doing' and the degree of adherence to or divergence from them becomes the main medium for distinguishing between and measuring the worth of individuals. Bourdieu calls this imposition of a dominant class's practices, understandings, and norms as natural and universal onto all members of society 'symbolic violence' (Bourdieu 1984, 1-7, 99-168, 511; Lakomski 1984, 154-155).[183]

Bourdieu's assertion that class distinctions are enacted and experienced through taste and conduct is highly relevant for the purposes of this chapter, as is his observation that the symbolic violence of universalised taste judgements can negatively impact those who cannot conform to them. These arguments put forward by Bourdieu, and applied here not only to class but also to caste, will guide the analysis in the following sections, in the first of which I will describe how my interlocutors of different castes made a fundamental distinction between the qualities of raw and those of parboiled rice and how they related this distinction in food preferences to a fundamental distinction between the perceived embodied qualities of Brahmins and other vegetarian castes on the one hand and those of non-Brahmin and Dalit, non-vegetarian castes on the other.

Raw and Parboiled Rice

Village residents consumed two different types of rice, *paccai arici* ('green'/ 'fresh' or raw rice) and *puzuṅgal arici* ('boiled' or parboiled rice). Physically the main difference between these two types of rice rests in the process of their transformation from paddy (*nellu*) to husked rice (*arici*). Raw rice is prepared by leaving the paddy to dry and then removing the husk, while to create parboiled rice, the harvested paddy is parboiled in a copper vessel before drying and

[183] Bourdieu's assertion that individuals' behaviour is determined by dispositions based on their socio-economic position can, of course, be interpreted as overly deterministic or as arguably based on a simplistic conception of human agency in that it proposes an invisible 'construct' or 'structure,' the habitus, that somehow determines human actions and perception (Farnell 2000, 401-404; King 2000, 422-3). Nevertheless, in my view, Bourdieu's theories are very valuable for identifying and analysing common tendencies of behaviour and taste preferences in relation to class (or caste) in particular societies and how these can have a strong influence on how individual people perceive themselves and others.

husking. This process noticeably changes the texture, colour, and chemical constitution of the rice. According to Priestly, the most noticeable chemical change when parboiling paddy is the gelatinisation of the rice's starch (1976, 5-6; 14). In scientific analyses, parboiled rice has been found to be 'firmer and less cohesive' than raw rice. The former's starch is less soluble and the rice is more resistant to breaking down when cooked, the integrity of its kernel being better maintained (Priestly 1976, 5-6; 14). Cooked parboiled rice has also been found to have a lower mean glycemic index than cooked raw rice, meaning that the glycemic response it produced in consumers was found to be lower than with raw rice (Wolever et al. 1986, 349). While these two types of rice are chemically different and produce different physical reactions in humans, they are also socially different in that they were consumed by the members of different social groups in Kaveripuram. Raw rice was consumed by Brahmins and vegetarian Vellalars,[184] that is vegetarian castes, for their everyday meals, while all my other interlocutors – being non-vegetarians – almost exclusively consumed parboiled rice in meals.

Narratives of Bodily Activity and Digestion

When asked about raw rice, most non-Brahmin and Dalit interlocutors usually stated that only Brahmins would eat it. Their most common explanation for this different dietary preference was the idea that Brahmins would not engage in physical labour.[185] Indeed, my Dalit and non-Brahmin interlocutors often argued that they could not eat raw rice, like the Brahmins did, because they had to perform physical labour. They usually stated that raw rice was digested much quicker and that after eating raw rice they would thus quickly feel hungry, tired, and weak and could not perform hard physical labour. Parboiled rice, on the other hand, was reported to provide their bodies with saturation and a feeling of strength that would last much longer, as it was digested more slowly. Many people further stated that parboiled rice was easier to digest, whereas raw rice would make itself felt quite heavily in the stomach and cause excessive gas leading to joint pain or pain in the back and shoulder blades. They said that they could only eat very small quantities of raw rice, as it would otherwise make them very uncomfortable. My non-vegetarian interlocutors even stated that some people could not digest raw rice at all and that it would cause them diarrhoea ('*cerimaanam akaadu*').

[184] As will be stated later in this chapter, not all vegetarian Vellalars ate raw rice regularly. Vegetarian Vellalars who, for example, engaged in physical work regularly might eat parboiled rice instead of raw rice in their rice meals.

[185] Some of my interlocutors expressed the idea that Brahmins would allegedly only go to the temple, say some mantras, and go back to the house again to sit and do nothing. Deliège has come across similar statements expressed by Dalits during his research in a Tamil village. He writes that 'The Paraiyars are […] conscious of the services which they render to society by their work and [...] the villagers often insist on their mythical ancestor's courage, while the Brahmans were created in order to do nothing' (1999, 133; original italics).

The explanations provided by my Brahmin (and vegetarian Vellalar) interlocutors were similar with regard to the distinction between the physical qualities of the two kinds of rice and their connection to differences in bodily activity and digestive processes. However, the evaluation of these activities and qualities was partially reversed. My Brahmin interlocutors, for example, were mostly of the opinion that raw rice was the more easily digestible rice. A young Brahmin teacher, for example, told me that raw rice was commonly used in pujas, because it was much easier to digest and could thus be served to everyone – including children and the elderly – without problems, while parboiled rice could only be digested by physically hard-working labourers. Some of my interlocutors were also convinced that raw rice was the healthier rice. A senior male Brahmin, for example, argued that parboiled rice was devoid of nutritious essence (*cattu*; see Chapter 3), as the essence would be lost when the rice was parboiled. While non-Brahmins and Dalits associated raw rice mainly with Brahmins, whom they saw as not engaging in hard physical work, and thus by extension with their allegedly privileged class status, Brahmins and vegetarian Vellalars similarly connected parboiled rice to non-Brahmins and Dalits, to hard physical work, and sometimes to poor socio-economic circumstances. A senior male Brahmin from Kaveripuram, for example, stated that par-boiled rice could also be called the food of the poor, since it was consumed, for example, by labourers. When eating a lot of par-boiled rice, he said, they would not feel hungry for many hours. He added that only Brahmins ate raw rice and that their digestion was faster and they would feel hungry again more quickly due to eating raw rice.

While the alleged connection between parboiled rice and physical activity was invoked by people of all castes, the evaluation of these attributes sometimes differed according to their caste. Parboiled rice eaters sometimes distinguished themselves from eaters of raw rice as hard-working, implying that the latter were inactive and did not contribute to society. Raw rice eaters, on the other hand, sometimes distinguished themselves from eaters of par-boiled rice as intellectually and culturally more sophisticated and disciplined workers of the mind. An intermediary perspective can be found in the statements of a middle-aged male vegetarian Vellalar who worked as a priest in a temple about 10km to the west of Kaveripuram. He had worked as a blue-collar worker – installing and maintaining bore wells – before he had become the temple's priest by inheritance. He told me that he had eaten parboiled rice before and switched to eating raw rice about fifteen years ago.[186] Having a lot of experience with eating both kinds of rice, he stated that while everyone could eat parboiled rice, raw rice might create gas problems for people whose bodies were not adjusted to it. He further argued that raw rice was well-suited for people like me, who sat down and wrote most of the time, and that eaters of raw rice would have a well-working brain and a strong memory, while eaters of parboiled

[186] Indeed, vegetarian Vellalars who regularly carried out physical work reportedly often ate parboiled rice.

rice would be good (physical) workers. Here again, raw rice is thus associated with limited physical an extended mental activity, while parboiled rice is said to allow those who consume it to engage in hard bodily work.[187]

These differences in food preferences related to bodily tasks and to perceived bodily capacities and requirements can be understood to stem from the historical division of labour according to caste that developed in the Kaveri Delta more than a millennium ago (see Gough 1981, 106-113; Menon 1979a, 57-59; Menon 1979b, 17; see Chapter 1). Being forced to work hard, non-Brahmins and Dalits historically needed parboiled rice to be able to perform their demanding physical work, while Brahmins were charged with performing intellectual and administrative tasks, with focusing on the cultivation of their spiritual selves and their karma, and with organising and performing the frequent and regular worship of different deities, whether in temples or in their own homes (compare Béteille 2012, 39-42; Deliège 1999, 115-119). Indeed, Brahmins in the Kaveri Delta are traditionally forbidden from physically engaging in agricultural work, this taboo being represented by the Brahmins' not being allowed to touch a plough (Menon 1979a, 57-58; Deliège 1999, 118).

Vegetarian and Non-Vegetarian People and Rice

In relation to these two different, historically grown caste habitus and to ideas of purity and pollution, the distinction between eaters of raw and eaters of parboiled rice was also enacted during rituals of worship and in festive contexts, since it was to a large extent synonymous with the distinction between vegetarian (*caivam*) and non-vegetarian (*aacaivam*) deities, rituals, and castes. Brahmins and vegetarian Vellalars traditionally maintained a vegetarian diet, while the other castes more or less regularly consumed meat, fish, and eggs. Most families of the latter castes made it a habit to consume meat or fish once a week on Sundays, while some of the poorest families reported to eating meat once every two weeks. Meat was also consumed at ritual animal sacrifices for the village deity, Kaliyamman, as well as for the lineage deities of different families. While members of vegetarian castes spoke of meat, fish, and eggs as impure and possessing an unpleasant smell, among non-vegetarians meat, fish, and eggs were often spoken of as healthy. Meat and fish – apart from being expensive – were further said to be delicious and were thus served as a special treat on certain festive occasions. Meat was exclusively served with parboiled rice, while most vegetarian dishes, except for *poṅgal* – which was always prepared with raw rice – could be prepared with either type of rice, depending on whether their consumers were raw rice or parboiled rice eaters.

While most rice dishes could be prepared with either rice, all temple priests that my research assistants and I interviewed – including non-Brahmin priests – stated that in pujas only raw

[187] Similar to eating parboiled rice, my interlocutors of both vegetarian and non-vegetarian castes also connected eating meat to performing hard physical labour.

rice was to be offered to vegetarian deities and that parboiled rice could only be offered to non-vegetarian deities. When asked why raw rice was offered to vegetarian deities, priests of different castes explained that this was due to its being fresh (*paccai*) and thus still carrying life (*uyir*) in it. While for my non-Brahmin and Dalit interlocutors this rule applied only to temple pujas and not to the domestic worship of vegetarian deities (to whom they usually offered parboiled rice), among Brahmins there was a notion that all castes had to offer only raw rice to vegetarian deities. Some of my Brahmin interlocutors designated parboiled rice itself as impure and polluting (*tiiṭṭu*). A senior Brahmin man from Kaveripuram, for example, stated that parboiling paddy was equivalent to cooking it. Thus, having already been cooked once during parboiling, parboiled rice would be cooked a second time, when cooked. It would therefore become polluting and should not be offered to the deities. He further added that when blessing people with rice (see Chapter 3), one should also only use raw rice, as blessings with par-boiled rice would cause bad fortune. He explained that his family would also use parboiled rice for preparing *iḍli* and *doocai* but that they would only offer foods prepared with raw rice to the deities.

The views of my Dalit and non-Brahmin interlocutors were quite different from these explanations. They did not consider parboiled rice impure or unfit for offering it to vegetarian deities in the domestic context. In fact, when asked why Brahmins ate raw rice, my Dalit and non-Brahmin interlocutors never mentioned matters of purity. When I asked a Dalit agricultural labourer couple whether there was life (*uyir*) in raw rice, they laughed and said that, obviously, there was not, since it had been harvested and husked and thus had no potential for germinating again. Indeed, vegetarian rice meals offered to deities during pujas in the domestic context as well as the monthly vegetarian meals given to the ancestors by ritually offering them to crows on the day of the new moon (see Chapter 3) were prepared with parboiled rice in Dalit and non-Brahmin households. In general, non-vegetarians stated that they offered the type of rice they ate regularly – that is parboiled rice – to the deities and crows as well. After all, they had to eat most of it themselves.[188]

As stated previously, whether a person ate parboiled or raw rice can be understood as reflective of 'conditions of existence' (Bourdieu 1984, 101) and social categorisations that had developed historically in relation to the division of labour in the villages and their paddy meshworks (see Chapter 1). When my interlocutors talked about these different food preferences, they therefore explained them by referring to alleged differences in lifestyle and physiology related to the typical position of different castes in the division of labour. By doing so, as Bourdieu anticipated, they articulated such differences as 'natural.' According to such statements, it was in the Brahmins' nature to not perform hard physical work, to be physically

[188] This was even true for some vegetarian Vellallars from the neighbouring villages, who told us that they offered parboiled rice to the crows, even though we had assumed that they would use raw rice for this occasion. Unfortunately, I was not able to interview more vegetarian Vellalars about this.

and metabolically adjusted to digesting raw rice, and to maintain a vegetarian diet, while non-vegetarian castes were expected to engage in hard physical work and thus seen as naturally needing the longer-lasting saturation from parboiled rice and the energy obtained from meat. At the same time, their digestive system and their bodies were seen as not necessarily able to cope with a lot of raw rice. These distinct working, eating, and digestive habitus were connected to established caste distinctions and both the habitus and the caste distinctions were enacted as natural and physiological. Given that they were a part of the paddy meshwork, both the two kinds of rice and the different kinds of caste-related bodies ('Brahmin' and non-vegetarian) were enacted by my interlocutors as defined by their respective embodied qualities in relation to one another, such as parboiled rice's capacity to saturate worker's bodies for longer or Brahmin's bodies' capability to process raw rice better.

In relation to Bourdieu's theory, it is important to note that members of both groups did not feel ashamed or embarrassed for their 'taste' preferences and lifestyle in relation to the other group and sometimes even elevated themselves over the respective other group – for example as hard-working, important, and useful agricultural labourers and farmers versus inactive or useless Brahmins or as pure, spiritual, disciplined, and intellectually sophisticated Brahmins versus impure or poor non-Brahmins or Dalits.[189] There was thus no dominant taste or habitus that was equally accepted as the norm by both groups and, accordingly, neither group was feeling inadequate for not following the other group's habitus and taste. This can likely be explained as resulting from the impossibility for a member of one group to join the other. Caste being understood as an inherited bodily attribute, the consumption of parboiled and the consumption of raw rice were not part of a socio-economic continuum in which one could rise or fall.[190] The tendency of non-Brahmins and Dalits to elevate themselves over Brahmins can certainly also be attributed to the prominent influence of Dravidian nationalism and anti-Brahmanical rhetoric and agitation in Tamil Nadu state politics since the 19th and especially since the early 20th century (see Basu 2011, 11; Münster 2007, 153) and the ongoing socio-economic and ideological emancipation of non-Brahmin and Dalit village residents. Indeed, Kapadia (1995, 5), based on her fieldwork in rural Tamil Nadu, has convincingly argued that her non-Brahmin and Dalit interlocutors, rather than subscribing to high caste values and perceptions, created their identities as 'Tamils' in opposition to what they considered to be 'Brahmin' values, which they did not share.

[189] As mentioned earlier, there were, of course, other vegetarian castes who ate raw rice apart from Brahmins, such as vegetarian Vellalars. However, the way in which my non-vegetarian and my Brahmin interlocutors usually framed this opposition was mainly a distinction between Brahmins on the one hand and non-brahmins and Dalits on the other. This may have been different if Kaveripuram had a large vegetarian Vellalar population. This, however, was not the case.

[190] If a non-vegetarian person were to adopt eating raw rice instead of parboiled rice, this would not change their caste status in any way and the same is true the other way around.

The enactment of these caste-based distinctions rooted in the paddy meshwork was very different from the enactment of recently established class distinctions in relation to the consumption of rice. As I will shoe, these latter distinctions were based on perceived differences in 'quality' (*daram*) between the different kinds of modern and alienated shop and ration rice now consumed by most village residents.

Shop Rice and Ration Rice

As illustrated previously, over the last ten to fifteen years, most village residents had started predominantly eating rice either from private shops or from the government-operated ration shop, while only very few households still consumed rice from their fields or rice from paddy they received as wages. As described in Chapter 5, every family holding a ration card could acquire between 12 and 20kg of free rice per month – depending on the number of family members registered on the card – at the ration shop. Families officially recognised as living below the poverty line could even apply for up to 35kg of free rice per month. There were further many different kinds of rice available in the private shops. Each kind of shop rice was associated with a certain degree of 'quality' and sold at a different price. The cheapest varieties sold cost about 30 rupees per kilogram, while prices could go up to 100 INR or more per kg. Those who wanted to eat good quality rice at cheaper prices could also purchase broken rice grains (*kurunai*).[191] The prevalence of these new kinds of rice was reflected in the ways in which my interlocutors explained their taste preferences and in their statements about which embodied qualities they desired in good rice.

Quality Distinctions

My interlocutors distinguished different rice varieties broadly according to whether they were 'very thin' or 'small varieties' (*ca̲n̲n̲a* or *cinna rakañgal*), 'medium' rice (*maṭṭa arici*), or 'fat' rice (*guṇḍu arici*). The most cherished varieties were the very thin and fine varieties of shop rice. Their softness as well as their thin and small size were the most emphasised and cherished qualities of these rice varieties among my interlocutors. When eating these fine varieties, as many people stressed, one hardly had to chew, since they were so nicely soft and small. My interlocutors further appreciated that these varieties, due to the small grain size, were easy to swallow and the grains were hardly felt in the throat when swallowing. Another commonly reported characteristic of these varieties was their bright white colour, which was a result of the heavy polishing to which they were subjected. Ponni rice was especially renowned, as it was among the smallest and thinnest rice varieties available and of a bright white colour. The most popular fine varieties were called Karnataka and Andhra Ponni. They were said to mainly

[191] At a rice mill in a nearby town, for example, broken rice could be purchased for 18 or 25 INR per kg.

be imported from Karnataka and Andhra Pradesh (see Chapter 5).[192] Most village residents referred to the fine varieties as the very embodiment of 'taste' and 'quality.' Fine varieties were exclusively available in private rice shops and their quality and taste varied significantly depending on their price. In 2014 and 2015, the most preferred varieties available in rice shops – Karnataka Ponni and Andhra Ponni – usually cost between 40 and 60 rupees per kilo.[193]

When the rice bought in shops was prepared and served, it was judged by referring to its taste. There were two different words commonly used for 'tasty.' The first was the Tamil-English adjective '*ṭeesṭaa*' while the second less commonly heard term was '*ruuciyaa*.' Both were used in similar ways. In expressions like 'it has no taste' ('*ṭeesṭu irukkaadu*') or 'it is [generally] tasty' ('*ruuciyaa irukkum*'), '*ṭeesṭu*' and '*ruuci*' were interchangeable. Both of them referred to a variety of bodily sensations which informed the taste of the rice as experienced by my interlocutors. Taste was not necessarily primarily defined via gustatory and olfactory qualities, even though they also played a role. My interlocutors emphasised different embodied qualities for judging taste depending on the type of rice they consumed. In relation to the rice bought in the shops, for example, taste was mostly judged in terms of the fineness and softness of the cooked rice as well as its ability to maintain its shape and texture and not become sticky, watery or otherwise lose its integrity after cooking. Cooked rice grains were not supposed to stick together. If this happened, it was a sign of bad quality and a reason for returning the bag of rice to the shop from which it had been purchased. It was these embodied qualities that primarily indicated the tastiness of shop rice for my interlocutors, while the aroma and smell of the cooked shop rice were given less consideration. The (gustatory) taste was mainly derived from the sauces, meats, and vegetables served with the rice and my interlocutors wanted good shop rice to go along with the taste of these items without gustatorily interfering. When my interlocutors talked about which varieties from the shop they preferred, they usually referred to the above-mentioned qualities in combination with stating the price and sometimes also the particular brand of rice. A middle-aged non-Brahmin woman, for example, told Raja and me that for their consumption her family would buy bags from the shop at prices between 700 and 900 INR per bag. Rice priced lower than that, she argued, would have thicker (*maṭṭa*) grains like ration rice and would also not be as soft. She preferred the brand *cembarutti*, because the rice grains would not stick together or lose their integrity when cooked but would remain separate and whole 'like wooden sticks' ('*kucci kucciyaa*').

[192] The name Ponni was so associated with high quality that the locally grown, smaller and thinner varieties were also referred to as different kinds of Ponni. As I illustrate in Chapter 4, one popular cultivar was called '*kaṭṭa ponni*' ('short Ponni'), its name referring to the short height of the paddy plants of this variety. The grains of this variety, which was originally called 'ADT 43,' were regarded as similar to Ponni rice in size, colour, and texture.

[193] The most expensive varieties were the fine Basmathi (*paacuppatti*) varieties, which were long but highly polished, white, thin, and soft, and had a very characteristic smell. They would be available for about 80 INR or more per kg. This rice was mostly used for preparing *biriyaani* and was therefore also referred to as Biriyani rice. Biriyani is a spiced rice dish prepared with vegetables, eggs, fish, or meat.

In opposition to the fine varieties from the shops, my interlocutors used the words *maṭṭa* ('medium') or *guṇḍu* ('fat') to designate big, round varieties, which they also reported to be of duller colour. These large and hard varieties, typically eaten before the large-scale availability of the fine varieties, were now considered almost non-edible by many of my interlocutors, who said that they could not swallow the large grains anymore and that they found the amount of chewing required when eating these varieties exhausting or even hurtful. These varieties, most people maintained, were not fit to eat as cooked rice in rice meals (*caappaaḍu*) and were only good for making *iḍli* and *doocai* out of their flour (see Chapter 5). Medium and fat varieties were locally cultivated. They were also available both at private shops and at the ration shop and were often advertised in the former as *iḍli* rice. The most common local fat variety was CR1009, a medium-duration variety that was often cultivated for the *cambaa* season, because its coarse and robust plants and grains were not easily susceptible to rain, winds, or pests (see Chapters 4 and 5). It was locally referred to as '1009' (*ayirattiyomboodu*).

In between the fine and the fat rice were varieties designated with the English term 'medium' or the Tamil *maṭṭa*,[194] which were locally grown and available in both the ration shop and private rice shops and also included the rice that some village residents cultivated and parboiled for their own consumption. They were not as small, fine, or white as the fine varieties, but were still fine enough to be considered tasty and to be sold in private rice shops at sometimes high prices. These varieties included ADT 39 and ADT 38. ADT 36, another commonly cultivated variety, was the finest and thus most popular of the medium varieties. The evaluation of these varieties differed according to context. When compared to fat varieties like CR 1009, these varieties were sometimes also called 'fine' (*caṉṉa* or *ciṉṉa*), while when compared to small and fine varieties like Ponni, they were called 'medium' (*maṭṭa*) varieties. The word 'fat' (*guṇḍu*), however, was exclusively used for varieties like CR 1009, while the designations 'Ponni' or 'like Ponni' (*poṉṉi* or *poṉṉi maadiri)* came to stand for all very small, fine, and white varieties. ADT 36, for example, was also called 'wonder Ponni' (*adiciya poṉṉi*), because its short, thin, and fine grains were said to resemble Ponni rice.

My interlocutors associated the degrees of quality of the different kinds of rice available in shops closely with their prices and often referred to the price when distinguishing different kinds of shop rice or different degrees of quality of shop rice. They would, for example, say that the rice for 40 INR was good, or the rice for 30 INR was not good.[195] Most of my

[194] The word *maṭṭa* was most commonly used to refer to grains perceived to be bigger and coarser than the fine varieties that had become the benchmark for good quality rice. According to context, it could thus be used to designate either medium or fat varieties or both. According to Muruganandam, the word *maṭṭai* is derived from *maṭṭam*, which means level. *Maṭṭai* or *maṭṭa* varieties are thus not extraordinary or of high quality, but plain or somewhere in the middle.

[195] Since the specific cultivars and origins of the different kinds of rice sold in the shops were often not known by customers and different kinds of rice were referred to by the same generic names such as 'Ponni' or 'Andhra Ponni,' the price, indeed, often was the only immediate criterion according to which distinctions could be expressed (see Chapter 5).

interlocutors stated that the quality of ration rice was inferior to that of rice from the shops or rice cultivated in the village. Generally, people agreed that the higher the price, the better the quality or taste of the rice, ration rice being considered the absolute worst. The taste and quality of the rice, and therefore also its price, became especially important at social gatherings where cooked rice was offered.

Tasting Respect and Shame at Functions

The concept most commonly used to enact the social status or standing of a person in rural Tamil Nadu is *mariyaadai,* which can be translated as 'respect,' 'deference,' or 'distinction' (Béteille 2012, 38-39; Mines 2005, 95; see Chapter 2). *Mariyaadai* has to be both given and received in almost every social interaction, although the ways in which it is expressed differ according to the context of the interaction and the kind of social relationship in question (Béteille 2012, 38-39; Mines 2005, 81-99).

Serving food at functions and festive events was, for my interlocutors, always an expression of giving respect or distinction (*mariyaadai*) to those invited, especially to the *maamaa* (maternal uncle) and other affinal relatives (see Chapter 3). Which kind of rice was served at functions was often talked about as expressive of the amount of respect the inviting party showed towards the guests. The better the quality of the rice served, the happier the guests would be and the more honoured they would feel. The guests' level of satisfaction reflected on the social standing or 'respect' (*mariyaadai*) afforded to the inviting household, since people talked about the rice they were served and either praised its taste or complained about having been served rice of lower quality. Thus, even the poorest among my interlocutors stated that they tried to buy rice from the shop for important functions and other social events – such as visits by their in-laws – in order to maintain their social standing. Offering ration rice to guests was considered disrespectful or shameful by most people. A middle-aged Pallar female agricultural labourer explained that people who served ration rice to guests at a wedding would be given no respect. Their guest would briefly touch the rice and then leave. On the other hand, if guests felt that they had eaten well, she said, it was an honour for the hosts.

Indeed, being able to serve, or being served, good quality rice at functions was a significant source of pride for hosts and guests alike, and even among the poorest families, the colour and taste of the rice offered to relatives had to be appropriate in order to prevent family embarrassment, the worst possible option – and a great insult to the guests – being to serve ration rice.[196] People thus felt pressured to spend a lot of money on rice for such

[196] According to a middle-aged Muppanar woman, families serving ration rice at functions were considered 'cheap' families (*maṭṭamaana kuḍumbam*).

occasions[197] and not being able to serve good quality rice at functions was experienced as shameful and embarrassing.[198] My interlocutors feared that guests would be offended, or, in the case of ration rice, even leave without eating the rice served, and would talk badly about them afterwards. While, in such a case, shame was derived from appearing poor and unsuccessful as a household, serving ration rice was doubly shameful, because it was also considered offensive. Serving good food, especially good quality rice, was treated as an expression of respect for the guests, such that serving ration rice was a depreciation of one's guests.[199] While the rice served at functions and to guests was very important for *mariyaadai*, which rice people ate in their everyday life was also an important indicator of their social status and of their self-perception and could equally be a source of pride and self-distinction or of shame.

Tasting Wealth and Poverty in Everyday Life

Since the ability to consume rice of better quality was directly related to purchasing ability, the quality of the rice that village residents could afford to consume daily was expressive of their socio-economic status. This allowed for establishing taste hierarchies in relation to wealth. Indeed, upwardly mobile and socio-economically aspiring families made it a point to consume shop rice regularly, even if it used up more of their income. Most of the wealthier landowners and otherwise moneyed village residents regularly ate rice bought from shops and, if they cultivated paddy, sold most or all of it. This was especially true for the landed and wealthier non-Brahmins (see Chapters 4 and 5). Eating expensive rice from shops can be considered an expression of some people's aspirations and ideas of self-worth. Within the resulting new class-based hierarchy of rice consumption, families of any caste could be higher or lower than families of any other caste and a significant number of families in Kaveripuram across castes regularly consumed good quality rice from shops. One Dalit landowner from the area even

[197] One exception was the giving of rice for the mouth (*vaaykku arici)* at cremation ceremonies. Here, among poor people, ration rice could reportedly be given to the family of the deceased by the relatives, our interlocutors stating that the former would not complain about receiving ration rice.

[198] According to Walker: 'Shame entails a negative assessment of the core self, made with reference to one's own aspirations and the perceived expectations of others, that manifests itself in a sense of powerlessness and inadequacy, and the feeling of 'being small' […]. [... Shame] has been associated with a range of psychological symptoms including low self-esteem, depression, anxiety, eating disorders, and suicidal ideas...' (Walker 2014, 33). My interlocutors in Kaveripuram talked about shame and embarrassment often in terms of what other people would say about a person or group behind their back. Commonly used phrases were 'four people will talk' ('*naalu peeru peecuvaañga*'), 'people will talk' ('*makkal peecuvaañga*'), or simply '[they] will talk' ('*peecuvaañga*'), referring to the shame of being talked about and seen in a negative light by relatives, friends, neighbours, or other people in and beyond the village.

[199] While serving and eating ration rice carried the stigma of poverty, it is important to note that using the ration shops and taking advantage of the subsidised products sold there – including the free rice – was not per se a sign of poverty. All families in the village possessed ration cards and many used them, for example to purchase subsidised sugar. Furthermore, many households that were not dependent on ration rice still took their share of ration rice each month in order to use it for preparing foods like *iḍli* or to give it to others who needed more ration rice.

bought rice for daily consumption at 1010 rupees for 25kg, which was comparatively quite a high price. He told me that this rice was of very good quality, while the rice from the field was very hard.

However, many non-Brahmins and Dalits could simply not afford to buy rice from shops regularly and were thus stuck with ration rice or occasionally paddy from harvesting wages for consumption. Many poor village residents – especially women (whose gendered responsibility it was to feed their families; see Chapter 3) – acknowledged that the ration rice they received for free was an immense relief and had made them more independent from landowners. However, precisely because poor village residents were dependent on eating ration rice, their lack of economic capital distinguished them from those who could afford to buy and consume shop rice and thus made the ration rice they consumed an important symbol of distinction in Bourdieu's sense. A middle-aged female agricultural labourer from the Pallar Street, for instance, explicitly distinguished between 'poor' ration rice eaters and 'rich' consumers of shop rice based on their wealth or 'economic capital' (Bourdieu 1984, 113-115), stating that only the rich ate the nice rice for 40, 60, or 80 rupees per kg, while the poor families had to eat ration rice.

Similar to not being able to serve 'good' rice at functions, having to eat ration rice regularly could entail a component of shame, especially for married women with families, and in the context of the presence of shop rice among neighbours or at functions constantly reminded poor village residents of their economic situation. As I will argue in the next section, such negative experiences in relation to ration rice were not merely 'symbolic' in the sense that they were based only on socio-cultural classifications or on comparing oneself to people who ate shop rice. Apart from just being thicker, the ration rice was, indeed, vastly different from the rice offered in shops and negative evaluations of the ration rice were to a significant degree related to its actual embodied qualities, which mainly resulted from the conditions of its processing and storage (see Chapter 5). People who had to eat ration rice regularly, I argue, thus prominently experienced their socio-economic status through the embodied qualities of the ration rice they prepared and consumed.

The Bodily Experience of Poverty and Shame

Even though the paddy bought from farmers by the TNCSC was sorted according to the specific varieties of paddy purchased, in the rice mills, all the different rice varieties were reportedly mixed together into just two categories, 'Grade A' varieties and 'common' varieties. All the varieties that fell into one of these categories were allegedly parboiled, dried, and bagged together. The consumers of ration rice thus reportedly received rice containing grains from different cultivars with different characteristics and cooking durations from the ration shop. According to my interlocutors, the resulting cooked rice would be unevenly cooked,

some grains having cooked for too long and others too shortly. Parboiled ration rice grains also had a dull, yellowish colour, which was explained as resulting from improper parboiling. My interlocutors further reported that the ration rice exhibited a bad smell. A common explanation for the smell was that the water for parboiling the rice in the government rice mills would be changed less frequently than required or not at all, the tanks for parboiling allegedly not being emptied or cleaned but simply refilled with water from the top. As stated in Chapter 5, there were rumours that the ration rice was parboiled in water that was black due to lack of cleaning. Some people said that rats or other animals might die in the TNCSC storage units with their bodies not being removed for a long time, thereby infesting the rice even more with a bad smell and taste. Furthermore, the ration rice was laced with black grains, small stones, and other debris, which had to be manually removed. Preparing and eating ration rice thus constituted a fundamentally different experience from preparing and eating rice from the shops or fields.

My female interlocutors reported that they always had to take out the stones, the black or differently coloured rice grains, and a few unhusked paddy grains by hand before being able to cook ration rice. They further complained that they had to soak the ration rice in water and wash it several times to remove the smell. One woman, for example, told me that she would always wash and rinse the ration rice four times to get rid of the bad smell and to get it properly cleaned. Several times, I witnessed women in the Dalit streets manually sifting the rice and taking out stones and foul, black grains one by one using their fingers. My interlocutors further reported that the rice needed to be cooked for an hour before it could be consumed. One of my Muppanar interlocutors stated that ration rice could only be cooked on a stove using firewood, since, if it was cooked on a gas or electric stove, the gas would finish more quickly or the electricity costs would rise. In order to illustrate how much work went into the preparation of ration rice, women compared it to preparing shop rice. An older woman from the Kuravar caste, for instance, told me that her family had to eat ration rice, because they were poor (*vaacedi illai*), that preparing the rice took awfully long, and that the rice had a bad smell (*maakku*). She explained that she had to clean the rice by hand. She would then soak the rice in water and wash it, before cooking it for one hour. Rice from the shops, on the other hand, would be ready in five minutes, she explained. Similarly, one of my Muppanar interlocutors stated that in her experience ration rice took one hour to prepare, while rice from the shops took 30 minutes to be ready, unless it was cooked in a pressure cooker, which would only take five minutes. Indeed, several female interlocutors maintained that one could boil shop rice in 15 minutes, or even five minutes when using a pressure cooker. Apart from the difficulties with cleaning, washing, and cooking the ration rice, the experience of eating it was also different from that of eating shop rice, given that the cooked ration rice consisted of differently cooked (and thus both undercooked and overcooked) grains, might still smell bad

or contain debris, and might also still have an unpleasant taste. Village residents were further faced with the fact that sometimes the ration shop might be supplied only with fat parboiled rice varieties. As stated previously, these fat varieties were generally considered unfit to eat as cooked rice in rice meals and those people who could afford it used them only for preparing *iḍli* and *doocai* while using thinner varieties to prepare rice meals for themselves (see also Chapter 5). However, those who could not afford other options had to eat the fat varieties as cooked rice in rice meals (*caappaaḍu*), too.

Through the taste, as well as the texture, colour and smell of the ration rice they consumed and the arduous labour they had to put into preparing it, my interlocutors who regularly ate ration rice physically experienced their own socio-economic position on a daily basis. This constant reminder of one's low socio-economic status and the stigma attached to ration rice may have made some members of the poorest families feel that ration rice was unhealthy and unsuitable for them. Indeed, when I asked them which rice was better for the body, some interlocutors would respond by saying that Ponni rice was the best. An interview I conducted with a middle-aged Pallar woman is illustrative of the physical stigma and negative qualities associated with ration rice and the positive view of expensive Ponni rice in terms of health and taste. After stating that people like her would eat ration rice and not buy Ponni rice, she argued that ration rice contained no essence (*cattu*; see Chapter 3) and that eating it would leave them sitting around without energy. While one could eat a lot of Ponni rice, she continued, one could not eat a lot of ration rice. Regardless of which sauce one would eat with it, the bad taste of the ration rice would always come through, while food prepared with Ponni rice would be tasty and good. Ration rice would develop a bad smell when cooked, while even those people who do not usually eat a lot would eat a lot of rice when served Ponni. Ponni rice would give the body strength. I would suggest here that the fact that some village residents did not feel any strength after eating ration rice and their statements that it was repulsive and did not go along with any dish, that it was unhealthy, or that Ponni or shop rice is the healthiest rice available have to be understood in relation to the observation that preparing and eating ration rice constituted both a socially and physically denigrating experience.

The idea that shop rice was healthier than ration rice was, however, not a majority opinion. Other village residents, despite being poor, argued that ration rice, despite its bad taste, was better for the body, since it was less polished and not treated with bleaching chemicals (see Chapter 5), therefore nourishing the body more and also being digested slower, leaving people saturated and active for a longer time. The opinion of a male Pallar agricultural labourer in his 50s, who occupied a comparatively better socio-economic position while living a relatively simple and thrifty life, is a case in point. Not experiencing the economic pressure and social stigma of poverty to such an extent, he was much more concerned with the nutritional aspects of ration rice, arguing that it was healthier than the rice from the shops

due to its being less polished and not treated with any chemicals to whiten it. He added that, in his experience, more and more people started consuming ration rice by choice – as its quality had improved – and that he and his wife would sometimes buy shop rice for guests and for rich people who did not like other rice, while the two of them were otherwise satisfied with eating ration rice and local rice from agricultural wages.

Conclusion

As the main staple food, rice acted as a strong indicator of differences between – and similarities among - socio-economic groups. Differences in wealth, status, and bodily tasks between different castes – as they had developed over centuries in relation to the paddy meshwork – were reflected in the distinction between the eaters of parboiled and of raw rice. When explaining this distinction, my interlocutors referred to perceived differences between the embodied qualities of raw rice eaters and those of parboiled rice eaters, which they related with perceived differences between the embodied qualities of raw rice and those of parboiled rice. This distinction was thus very much embedded in the meshwork view illustrated in Chapters 1 and 3. Vegetarians and non-vegetarians were enacted as physiologically different humans eating physiologically different rice. While the distinctions between parboiled rice and raw rice and their respective consumers were presented as 'natural' in Bourdieu's sense, they hardly served to perpetuate any taste hierarchies or to naturalise a morally dominant position of vegetarian castes in the present day and age. Members of neither group considered their habitus or taste as inferior and some people in both groups elevated their own over the respective other group (compare Kapadia 1995; Basu 2011, 11; Münster 2007, 153).

Quality differences between different varieties of shop rice as well as between shop rice and ration rice were also expressed by my interlocutors in terms of the embodied qualities of the rice as experienced in its enmeshment with human bodies. Here, 'quality' based on 'taste' as an umbrella term that summarised embodied qualities such as smell, size, texture, integrity, colour, and gustatory suitability for different dishes was the main criterion used to distinguish these different kinds of rice. However, in the private rice shops as well as in the ration shops, alleged embodied qualities of people, such as being of a certain caste or having a body accustomed to certain kinds and degrees of physical activity, did not matter. Instead, shop rice was potentially available to everyone since it was 'disembedded' (Giddens 1990) from the paddy meshwork and arrived through mostly disembodied, long-distance networks (see Chapters 4 and 5), and access to it was solely based on the disembodied criterion of monetary value. While this allowed upwardly mobile people to transgress status boundaries related to caste membership to some extent, it also created a common scale of higher and lower quality rice, along which differences in socio-economic status between all people could be enacted. Consequently, caste as a category hardly featured in the narratives related to

these distinctions. Rather, my interlocutors compared their own social standing – as embodied in the rice they ate and offered to guests – to that of their relatives, of their neighbours, or of village residents from other castes that were close to them in socio-economic status.

I have argued here that through serving certain kinds of rice to others, my interlocutors enacted their own social status as well as that of the people they served the rice. Through their ability to serve certain rice to guests or through being offered certain kinds of rice by others, my interlocutors thus experienced pride or shame about their own socio-economic status. Given that the maintenance of many social relations – for example with the mother's brother's (*maamaa*) family – was vital for a household (see Chapter 3), poorer households experienced strong socio-economic pressure to provide expensive, high-quality rice to their guests in order to show them respect and not offend them. Furthermore, in their day-to-day lives, my interlocutors experienced their own socio-economic status and that of their family or household through their bodily engagement with the rice they procured, prepared, and consumed.

By elevating more expensive rice as tasty and considering the quality of ration rice as inferior, people in the village established a taste hierarchy that naturalised the superiority of those people with more economic capital. Due to this form of what Bourdieu calls 'symbolic violence,' the consumption of cheap rice or ration rice, or having to offer or being served the latter could thus cause people to feel shame and embarrassment.[200] I have argued that the impacts of these naturalised taste gradations were experienced by my interlocutors in a two-fold manner. Firstly, they were related to taste judgements and the price of the rice people served, were served, or were financially able to consume daily. Some people thus experienced fear of being chided due to serving 'bad' rice or of being disrespected by being served bad rice, or were reminded of their inability to afford 'good' rice by regularly having to procure, prepare, and consume ration rice. Secondly, my interlocutors physically experienced their socio-economic status through the embodied qualities of the rice they procured, prepared, consumed, served, or were offered. Thus, while ration rice was definitely a great help for poor families, its bad quality could make its preparation and consumption a denigrating experience for those who were forced to rely on it.

[200] A parallel can be drawn here to debates about reservations in employment and education for members of 'lower' castes and classes that were introduced by the Indian National and State Governments. Similar to the distribution of ration rice described here, these reservations help members of marginalised groups but at the same time potentially expose them to stigma, prejudice, and discrimination, as they might be deemed undeserving, or less competent and productive, by other members of society. See for instance Desai/Kulkarni 2008; Deshpande 2019; Deshpande/Weisskopf 2014; Prasad et al. 2020.

Chapter 8: 'There are no Castes in Agriculture!:' Changing Dynamics of Social Inequality in and around the Paddy Fields

Paddy farmers and agricultural labourers spent a significant part of their lives in the fields and in other places related to paddy cultivation, such as the tea shop, food stalls, or the TNC godown. As places of frequent interaction between agricultural labourers, owner-cultivators, and landowners of different castes, genders, and economic and educational strata, these were important locations for my interlocutors to enact and experience caste, gender, and class distinctions.

This chapter thus takes us to the paddy fields again, this time as places in which social distinctions were enacted. Specifically, I look at how my interlocutors enacted and experienced caste, gender, and class distinctions and inequalities through their bodily involvement in paddy agriculture (see Bourdieu's concepts of 'distinction' and 'habitus' as described in Chapter 7). Bodily involvement here includes the physical roles different people played in paddy cultivation, such as performing or not performing certain agricultural tasks, as well as the ways they interacted with one another verbally and physically; for example, in what manner they addressed people from other castes and whether they touched them or shared water or snacks with them. It also refers to the degree to which different people entered the muddy fields, stayed on the bunds of the fields, or were entirely absent from the fields.

I further compare the ways in which my interlocutors enacted caste, class, and gender distinctions in agriculture in the present with my interlocutors' descriptions of how such distinctions were enacted several decades ago and with descriptions from other anthropological studies conducted in rural Tamil Nadu in order to illustrate how socio-political and technological changes – brought about by the Green Revolution and government schemes designed to support poorer castes and classes - had likely impacted the bodily enactment of caste, class, and gender distinctions in paddy agriculture in Kaveripuram.

I begin my description by illustrating how the caste and class status of different people was reflected in their physical involvement in – or absence from – certain agricultural tasks, in their physical position in the mud, on the bunds, or outside of the fields, and in differences in clothing and appearance. I then describe how, over the last decades, Dalit (and non-Brahmin) agricultural labourers significantly emancipated themselves and were able to improve their working conditions and salaries as well as enforce more respectful treatment from landowners. I further show how - as some Dalits and some of the poorer non-Brahmins acquired significant shares in the means of production and labour relations were altered with mechanisation – conventional caste-based hierarchies in agriculture were challenged and modified to some extent.

I show that, with decreasing degrees of economic and power inequalities between members of different castes working in agriculture, agricultural labourers and landowners of

different castes established a kind of 'community' similar to those described in Indian government-operated, 'public sector' companies (Parry 1999a, 1999b; Strümpell 2008), where members of different castes shared water, snacks, gossip, and agricultural knowledge and treated each other with almost equal amounts of respect. In fact, the resulting possibilities for more egalitarian and collegial – or even amicable and affectionate – behaviour led interlocutors from various castes to explain that 'there are no castes in agriculture' ('*vivacaayattule jaadi keḍaiyaadu!*'). I further argue that the loadmen and government officers working at the TNC constituted a separate, government-sanctioned work community that also transgressed caste. However, I also suggest that the enactment of camaradery in places related to paddy agriculture did not necessarily mean that similar kinds of transgressions of caste segregation were also practiced in other areas of village life. In relation to the domestic context, for instance, caste segregation still seemed to be mostly upheld.

In the final section of the chapter, I describe the division of labour according to gender that was enacted by my interlocutors in paddy agricultural wage labour. I further describe differences and inequalities in remuneration and workload between men and women and move on to giving two examples of how the male-female division of labour was challenged by women from another village and by the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). Throughout this last section, I will draw on Kapadia's (1995) work on gender and agricultural labour in paddy cultivation in a Tamil village and compare the findings of this study with her findings on the above-mentioned aspects. In conclusion, I argue that while overt caste discrimination was now to some degree banned from places related to practicing paddy agriculture, gender distinctions and discrimination were still quite similar to what Kapadia described in 1995.

Caste in Kaveripuram

As stated in Chapters 1 and 2, caste distinctions and caste-related socio-economic inequalities still play a large role in most people's lives in the rural Kaveri Delta and many village residents still demand respectful and submissive behaviour from members of castes they consider lower-ranking than their own, based on purity or socio-economic status. According to our observations and our interlocutors' own descriptions, village residents still enacted caste distinctions in a variety of ways, some of the most important of which were caste-related taboos on accepting cooked food or water from, or entering the houses of, castes considered 'lower' than one's own caste, traditional obligations between larger landowners and their attached labourers to give and receive food items on certain occasions, as well as differences in the degree to which members of different castes and classes were afforded *mariyaadai* (respect, deference, or distinction) through gestures or transactions (see Béteille 2012, 38-40; Dumont 1970; Gough 1981, 17-20; Mines 2005, 81-96; Münster 2007, 55-64; 92-114; Srinivas

[1952] 2003, 26-31).[201] Thus, while the giving and receiving of cooked food between relatives (who are of the same caste), for instance, was one of the most important means of expressing and receiving respect (see Chapters 3 and 7), in the case of inter-caste interactions, not accepting cooked food was still usually a sign of superiority, while accepting cooked food from members of other castes was akin to expressing submission or, in the case of mutual food acceptance, equality (see Dumont 1970, 83-89; Gough 1981, 17-20; Marriott 1976a, 111-129; Münster 2007, 55-64). [202]

Anthropologists and sociologists have taken various approaches and stances towards caste relations in India. For Gough (1981), for example, caste constitutes a hegemonic religious ideology that serves to legitimise and mask the exploitative nature of class relations in the villages, meaning that the caste structure is a product of – and serves to perpetuate – the class structure given by the relations of production. Gough describes discriminatory, violent, derogatory, and oppressive behaviour of powerful castes and classes towards the 'lower' castes in great detail and argues that the class structure as described by her is maintained to a large extent through the physical, ideological, and structural oppression of the lower castes and classes by the dominant castes and classes and the economic dependency of the former on the latter (Gough 1981, 105-150, 289-338, 407-420). While Gough considers the 'caste system' as essentially a means of perpetuating, upholding, and legitimising an exploitative class system of production (see also Mencher 1974b for a detailed approach to caste as a system of exploitation), Dumont (1970) understands the 'caste system' as a system of values and mental classifications that is specific to South Asia and distinct from social stratification in a Marxist sense. According to him, the 'caste system' provides the basic

[201] Although I agree with Quigley (1997) that depicting castes as arranged in one or several linear hierarchies does not do justice to the manifold ways in which caste is enacted, my interlocutors themselves used designations such as 'great' (*periya*) and 'small' (*ciṉṉa*), or sometimes 'high' (*meezai*) and 'low' (*kiizai*), to qualify different castes.

[202] Indeed, members of different castes were in general not supposed to prepare food or dine together. The taboo on inter-dining has been shown in many areas of India to apply most strictly to cooked food (see Dumont 1970, 141-142), which in the Kaveri Delta is tantamount to cooked rice (see Chapter 3). As a rule, people in Kaveripuram did thus not take any food, especially cooked rice, from village residents they considered to be of 'lower' caste status. Correspondingly, virtually all rituals and festivities were organised and attended almost exclusively by members of only one caste, as well as by individuals of different service castes, like priests or washer men and women, who were needed for the rituals, and sometimes also by professional cooks who were hired to prepare the food and who may be of the same or of 'higher' caste status than the hosts. That being said, Muppanars and Padaiyaccis in Kaveripuram organised and attended certain rituals and festivities together. They also shared a residential area, inter-dined, had a common village council, and in rare cases even inter-married (see Chapter 2). The attached labourers of powerful landowners were served cooked rice meals at certain rituals and festivities conducted by the landowners, too. This was at once a gesture of respect towards them and a sign of their submissive relationship with their landowner. Similarly, attached labourers were expected to visit the houses of their landowners for Diwali and receive rice-based sweets from them. During *aayuda puujai*, the yearly worshipping of tools, I also witnessed how male agricultural labourers received ritual food offerings (*prasaadam*) and money from their landowners. According to Münster (2007, 107-109), landowners might also attend their attached labourers' wedding ceremony and present them with gifts. They would, however, not eat there.

structure to the whole of (Hindu) Indian society, the main organisational principle of which he identifies to be 'hierarchy.' Dumont argues that hierarchy is fundamentally different from 'social stratification' and that, accordingly, the 'caste system' is not primarily a political-economic system but is based on the mental ranking of castes according to the values of purity and power (1970, 36-39, 65-83). Dumont argues that as the highest value, holding Indian society together, purity structures the whole cosmos, including humans, into groups of entities possessing different degrees of purity or impurity and thus leads to their being ranked hierarchically according to their perceived degree of purity. The second value structuring Indian society, according to Dumont, is power, which grants middle-ranking but locally dominant castes a higher standing in the caste order than their purity permits, due to their socio-economic dominance. As long as the groups representing the two ends of the purity and impurity continuum among humans, namely Brahmins at the top and Dalits at the bottom, occupy their respective positions, Dumont argues, the locally specific rank inversions in the middle ranks of the caste system based on power are simply encompassed by the superior and more sacred value of purity and its antithesis, pollution, and thus do not challenge the purity ranking as a whole (Dumont 1970, 42-61; 72-83). Marriott, too, sees caste as an indigenous category that is not synonymous with class in the Western sense (1976a, 133). As illustrated previously, Marriott argues that persons in South Asia are perceived as 'dividuals,' meaning that they are understood as continuously taking in various substance-codes that transform their own substance-code, but also as giving out substance-code in different forms through interpersonal contact but also through preparing cooked food or through affecting any other substances that are sensitive to their substance-code, which can then affect other persons (1976a, 111). Marriott considers 'caste systems' a fundamental feature of South Asian ways of relating. He builds his theory of caste on the idea that caste rank is constituted through transactions of substance-code between dividual persons, meaning that different castes follow different strategies of giving out or taking in substances and are ranked according to these strategies (1976a, 119-129).

An important question that anthropologists have discussed in relation to the caste system is whether 'lower' castes share the same values as higher castes and accept their own, 'low' position in the caste hierarchy or not. Gough, for example, states that both her non-Brahmin and Dalit interlocutors, when speaking privately, '… selectively approved certain features of the religious and caste ideology of the Brahmans, but challenged others' (1981, 301). She also describes and analyses protests and uprisings against landlords by non-Brahmins and Dalits and the often violent suppression of such individual or collective acts (1981, 289-338). Gough further describes members of the Pallar caste in her study as less influenced and restricted by Brahmanical, Sanskritic 'culture,' more egalitarian in their behaviour towards one another, and more concerned with 'health and prosperity in this life,'

than with religious notions of what happens after death (Gough 1956, 847, cited in Moffatt 1979, 10; Gough 1981, 302-303, 316-317).

Applying Dumont's and Marriott's approaches to his own ethnography, Moffatt (1979: 9-24) criticises Gough's position as well as what he calls 'models of diversity,' according to which Dalits are to some extent culturally distinct from caste Hindus and have different forms of social organisation, different beliefs and rituals, divergent explanations for their low status, or different perspectives on the caste system (see for example Cohn 1954; Kolenda 1964; Miller 1966, in Moffatt 1979, 15-24). Based on his fieldwork in a Tamil village, Moffatt argues that there is a '… fundamental cultural consensus from the top to the bottom of a local caste hierarchy – a consensus very much participated in by the untouchables' (1979: 3). According to Moffatt, while power and domination may very well play a role in upholding caste relations and different castes might exhibit some 'cultural variation,' there exists an underlying cultural framework of 'definitions and values' that is shared by all castes. Dalits, according to him, thus comply with the caste system as a system of hierarchically arranged groups ranked according to their purity and accept their position within it, just as members of the other castes do (1979: 3-4).[203] Moffatt's statements about the 'cultural consensus' among Dalits were widely refuted and sparked a passionate and controversial debate in the anthropology of South Asia about whether the 'lower' castes, particularly the Dalits, share the same ideas and values regarding purity and pollution, rank, and untouchability as the higher castes and whether this means that they accept their low status and their alleged impurity or untouchability or not (the debate and the positions taken by different authors are summarised in Gorringe 2005, 114-122). Despite there being different opinions as well as different theoretical and analytical perspectives, it seems clear that, while instances of hierarchical grading and caste discrimination – like treating groups of people as 'untouchable' – do also occur **between** Dalits of different castes, the claim that most or many Dalits consent to **their own** subjugation or consider themselves 'untouchable' or 'impure' is not only an untoward generalisation but is directly contradicted by a significant body of ethnographic evidence (see for instance Deliège 1999; Gorringe 2005; Kapadia 1995; Mosse 1994; Münster 2007). In her classic ethnography of a Tamil village in Thiruchirappalli District, Kapadia (1995, 3), for example, found that her interlocutors from the Pallar caste and other lower castes '… resisted and rejected upper-caste representations of

[203] Moffatt's main evidence for this claim is his observation that the Paraiyars in the village 'replicated' the organisational structures prevalent among the higher castes. Just as the higher castes living in the main village had their own service castes performing ritual and other tasks for them, such as, for example, the Brahmin priest, the Vannan washerman, or the Ambattan barber, the Paraiyars, who were excluded from these services, reproduced some of these relations by using the also 'untouchable' Valluvar and Harijan Vannan castes as service castes, the former ranking slightly above and the latter below them on the purity scale. They also treated the leather-working Chakkiliyans and the wandering Kurivikarans as 'untouchables' and instituted hierarchical gradings associated with carrying out or not carrying out particular ritual tasks between three different groups within their own caste (Moffatt 1979: 151-158).

themselves' and that the Pallars did not share the high castes' 'Brahmanical values.' Instead, she argues, the members of lower and oppressed castes enact their own normative frameworks, which provide them with self-respect, dignity, and a certain kind of power. Furthermore, she argues that both non-Brahmin and Dalit castes distinguish what they understand as their 'Tamil' values from what they consider to be 'Brahmin' values (Kapadia 1995, 5; see also Chapter 7). Dumont's perspective on the caste system, according to her, is thus a particularly 'Brahmanical' view – putting utmost emphasis on ritual purity, placing Brahmins at the top, and suggesting a cultural homogeneity – and far from universal among Hindus (Kapadia 1995, 6).[204] I fully endorse the arguments and findings of Kapadia, Gorringe, Deliège and others here. As illustrated in Chapter 2, non-Brahmins in Kaveripuram had emancipated themselves socio-economically over the course of the 20th century, the dominant landowners in Kaveripuram now being Muppanar families, while none of the Brahmin families held significant agricultural land anymore. For several decades, there had also been a socio-ecomomic self-emancipation of Dalit residents in Kaveripuram. As I will show in this chapter, both non-Brahmins and Dalits from various castes had also altered their behaviour towards members of other castes to some extent. This was particularly apparent in inter-caste interactions in agriculture, such as those described in this chapter, which were decidedly more amicable and less hierarchical than they might have been only a few decades ago.

The Enactment of Caste and Class in Paddy Cultivation

In this section, I describe how caste and class were enacted among agricultural labourers, owner-cultivators, and farmers of different castes, classes, and genders in the paddy fields and other places related to paddy agriculture. After illustrating how differences in caste and class were manifested in the different bodily tasks and appearances of my interlocutors, I go on to show how my interlocutors' behaviour across castes had become more egalitarian, respectful, and amicable with the increasing emancipation of Dalit (and non-Brahmin) agricultural labourers, changes in ownership of and access to the means of production, and changing agricultural practices and circumstances.

Bodily Distinctions

Caste and class were enacted and experienced in paddy agriculture in every step of the cultivation process. Labour tasks, for example, carried caste-specific connotations (compare

[204] Gorringe, in his seminal ethnography of Dalit movements and contemporary life circumstances of Dalits in rural and urban Tamil Nadu, similarly argues that while many Dalits might not openly resist caste discrimination or behave in particularly egalitarian ways themselves, they, nevertheless, '… do not live in consensus with a hierarchical system based on purity and pollution' (Gorringe 2005, 117). He further emphasises the ongoing stark dependency of Dalits on higher castes for their livelihoods and the ongoing instances of discrimination and violence that Dalits often face, particularly when challenging existing inequalities, arguing that both these factors still make open resistance and defiance a potentially life-threatening endeavour for Dalit individuals and families (Gorringe 2005, 124-133).

Kapadia 1995, 222, 242, 245, 253). The pulling out and transplanting of the saplings, for example, were carried out exclusively by Paraiyar and Pallar agricultural labourers. Non-Brahmins did not perform these tasks, even in their own fields. When asked why they did not pull out or transplant paddy saplings, male and female non-Brahmin agricultural labourers answered that they did not know how to carry out these tasks. There was no additional caste-stigma attached to the tasks. Cutting the bunds and manual weeding were performed by Dalits and non-Brahmins, both in their own fields and for money (compare Kapadia 1995, 222; 242; 245; 253). Some of the poorer Muppanar women worked as daily wage labourers in manual weeding. Muppanar women did not, however, generally perform daily wage work outside of agriculture. Many Pallar women, on the other hand, also went to work in brick kilns and even in construction work beyond the village boundaries, moving and working together in groups. Poorer Muppanar men also performed daily wage labour outside of agriculture. Several Muppanar men worked in small jaggery (*vellam*) production sites (*karumbu aalai*) located nearby. These sites, where sugarcane was crushed and its juice heated and mixed with chemicals in order to produce jaggery, mostly belonged to wealthy Muppanar landowners, who employed fellow caste men of lower economic status. Male members of the Dalit and Muppanar castes sometimes performed the same agricultural work side by side in one field. Male and female agricultural labourers from both Dalit castes regularly mingled with each other and with male Muppanar agricultural labourers during agricultural work.[205] However, I never witnessed female Muppanar agricultural labourers mingle with or work alongside of members of the Dalit castes during agricultural work.

While agricultural labourers of different castes could be distinguished according to which kinds of labour they performed or did not perform, the most prominent distinctions in agriculture were those between landowners, land-owning or land-leasing cultivators, and agricultural labourers (see for instance Athreya et al. 1990, 95-119; Gough 1981, 36-55; Kapadia 1995, ch. 8; see Chapters 1 and 2). Most of the big landowners belonged to the Muppanar caste. They did not engage in agricultural labour themselves and would usually stand on the bund and command the labourers from there. The customary 'uniform' of a male landowning farmer consisted of a white shirt and a white dhoti (*veeṣṭi*) combined with a towel (*tuṇḍu*) worn around the neck, often of green colour. In contrast, male agricultural labourers wore clean white shirts and dhotis only on special occasions outside of their work, such as for certain pujas or festivities, when visiting important relatives or government offices, or when going out of the village – for example to a city or to visit an important temple. Wealthier landowners, however, wore these clothes regularly – albeit often wearing a clean lunghi rather than a white dhoti and sometimes putting on a white banyan rather than a proper shirt – when

[205] Manual harvesting work could also be carried out by members of the Pallar and Paraiyar and the Muppanar castes, both in their own fields and for hire. However, manual harvesting had almost completely vanished, due to the introduction of harvesting machines (See Chapter 1).

supervising the work in their fields. Male agricultural labourers, on the other hand, often went into the fields shirtless and wrapped into an old towel rather than a lunghi. When pulling out saplings, male agricultural labourers often wore only underpants. Some agricultural labourers did wear old shirts, banyans, or lunghis to the fields, but these would quickly become soaked with clay water and brown mud and often already had large holes and stains. Tasks like carrying the sapling bunches on the head to the main field lead to agricultural labourers' becoming soaked in brown water and covered with mud from top to bottom.

Among women, the difference between the wives of landowners and female agricultural labourers was primarily spatially pronounced, as the wives of medium and big landowners did not usually enter the fields at all, their status being characterised by their bodily absence from the fields. Female agricultural labourers also wore saris and adornments to the fields but wore old men's shirts above their saris to protect the latter. Furthermore, due to the nature of their work, female agricultural labourers were forced to pull up their saris and expose their lower legs in public, with which some of them were not comfortable. Working in the fields under the blazing sun also led to labourers' and farmers' becoming tanned. Women from richer families usually studied, worked as housewives, or were employed in white-collar jobs or professions. They spent a lot of time inside their house, college, or office and were thus usually less tanned than agricultural labourers. The difference between female agricultural labourers and wealthier, often higher-caste women was thus assumed to be reflected in their skin tone, too. Lighter skin was held up as a beauty standard and was associated with higher caste and class status, while a darker tan could dampen a woman's marriage prospects and affect her self-esteem (see Glenn 2008, 289-290; Karupiah 2015, 253).

Furthermore, the differences in the degrees of physical hardship between landowners, cultivators who only worked in their own fields, and agricultural labourers were immense. During the northeast monsoon season in 2015, for example, a Dalit agricultural labourer complained to me that life for daily wage workers was very hard with all the rain. Having to work in the flooded, cold, and foggy fields, they ran the risk of catching a cold and falling ill with fever. If this happened, they would not be able to earn and also have to pay high fees for pills and injections from the doctor. Indeed, during the monsoons – especially in the cold months of *kartikai* and *markali* (mid-November to mid-January) – agricultural labourers and elderly, poorer village residents frequently fell ill and could be seen lying on their verandas wrapped in blankets.

Apart from such bodily distinctions based on the division of labour in agricultural work, there were rules of behaviour related to interacting with members of 'higher' castes. My interlocutors, for example, reported that when, in earlier times, non-Brahmin castes entered the Brahmin Street – Brahmins being the major landowners at the time – they had to take off their sandals, while Dalits were not allowed to enter the Brahmin street at all and would have

to approach the Brahmin houses from the backside through the gardens. According to one of my Brahmin interlocutors, 'lower' castes had not been allowed to use foul language or swearwords in front of their Brahmin superiors, either. It is also widely reported across the ethnographic literature that Dalits were – and still are in many places – not allowed to drink from the wells or cups used by members of non-Dalit castes (Gorringe 2005, 113-114, 119-120; Gough 1981, 289-296; Münster 2007, 186-187).

Modes of speech were another form of enacting distinction and hierarchy. In the past, landowners speaking to labourers from 'lower' castes would, regardless of the latter's gender or potential seniority, address them using the informal and thus impolite 'you' (*nii*) – rather than the polite, plural 'you' (*niiñga*) – and might also use the informal and derogatory verb suffixes (*-ḍaa and –ḍii*). While these forms were used affectionately to address close friends or children, when addressed toward adult non-kin, they insinuated that the latter were of much lower status than the speaker (Münster 2007, 186-187). Furthermore, landowners might utter their statements in a rough, commanding tone and sometimes by shouting angrily. Another common way of speaking with 'inferiors' was by employing a fierce and strict tone.

However, the status of Dalit (and non-Brahmin) agricultural labourers in Kaveripuram in 2014 and 2015 was very different from the status they had had several decades ago (compare Béteille 1996; Deliège 1999; Gorringe 2005; Gough 1981; Harriss et al. 2010; Moffatt 1979; Münster 2007). Indeed, many Dalits and non-Brahmins now challenged the conventional ways of enacting caste and class hierarchies in paddy agriculture.

Emancipation of Dalit Agricultural Labourers

During the research, it quickly became clear that the Dalits in Kaveripuram had mostly moved out of bonded labour relationships and many of them were economically as well off as – or even better off than – many of the poor and landless Muppanar families (see Chapter 2). Many Dalits, especially of the Pallar caste, had acquired small or even larger amounts of agricultural land of their own or for share-cropping in the last 15 to 20 years and – with few exceptions – the children of all Paraiyar and Pallar families were sent to school regularly. Many young Dalits, furthermore, were enrolled in higher education or made a living outside of the village and outside of agricultural work. Young Dalits in their 20s were either studying in college or working in the cities or surrounding villages. No male Dalit aged below 30 worked as an agricultural labourer, while only three or four Dalit women below 30 did. Several Dalit agricultural labourers aged 50 or above, especially from the Pallar Street, had sons and daughters who worked in relatively well-paying jobs or had well-earning spouses. Nevertheless, many of them engaged in as many agricultural labour opportunities as they could find, thereby earning and potentially also saving additional money. This became especially apparent during the sugarcane harvesting season.

In general, sugarcane required much less agricultural labour than paddy. Therefore, most tasks associated with sugarcane cultivation did not contribute a significant share to my interlocutors' income. There was, nevertheless, one exception. The most labour-intensive stage of sugarcane cultivation was its harvesting, which was called 'sugarcane cutting' (*karumbu veṭṭuradu*). Sugarcane cutting started in mid-September and continued to afford agricultural labourers with work until February.[206] Sugarcane was manually harvested by cutting down the canes and piling them into bundles that were then weighed. Sugarcane cutting was the most profitable agricultural daily wage work available and, due to the large amount of sugarcane cultivated in the area, constituted a major part of agricultural labourers' yearly income. Agricultural labourers commonly went to sugarcane cutting as couples of husband and wife. Salaries were calculated according to the weight of the harvested canes and a couple could earn up to about 1000 INR per day, which was more than in any other agricultural work. Unfortunately, sugarcane cutting was considered one of the physically most challenging agricultural tasks, which is why physically less fit agricultural labourers could not make use of this opportunity. However, almost everyone who was fit enough, including agricultural labourers in their 40s and 50s, regularly went to cut sugarcane.[207]

Many Dalit agricultural labourers cultivated a kind of 'work ethic' (see Deliège 1999, 133), arguing that they were proud of their skills in agriculture and that they were hard-working and therefore financially independent and able to educate their children. A middle-aged, male Pallar agricultural labourer, for example, argued that he and other members of the Pallar caste where financially better off than many farmers. This was due to the fact, he said, that his people would engage in all types of hard agricultural daily wage labour almost every day, while many landowners were dependent on the meagre income derived from agriculture. Landholdings above three acres were inefficient, he argued, because of high labour costs and management responsibilities. Going for daily wage work was good, he explained, because the harder one worked the more money one could gain, especially from sugarcane cutting. While male and female Dalit agricultural labourers emphasised their pride in being hard-working and skilled agricultural labourers, male Dalit agricultural labourers above 35 hardly engaged in any daily wage work outside of agriculture. Female agricultural labourers, especially younger Pallar women who had recently married or were adults but still unmarried, however, could be seen working in brick kilns or construction sites in and around Kaveripuram as well. Poorer female agricultural labourers and a few poor male agricultural labourers, especially from the

[206] Most cultivators tried to harvest sugarcane shortly before Diwali or shortly before *tai poṅgal* – that is between the end of October and the beginning of November or right before mid-January – but harvesting also took place before and after these dates.

[207] According to Münster (2007, 104), sugarcane cutting in the village where he carried out his fieldwork was outsourced to migrant labourers, most of the village's own agricultural labourers claiming that sugarcane cutting was physically too extreme for them. In and around Kaveripuram, however, all the agricultural labour associated with sugarcane was performed by village residents, including the production of jaggery.

Paraiyar Street, further also engaged in jobs such as cleaning up the gardens of wealthier landowners.

There were several government schemes that strengthened the position of Dalits in Kaveripuram. The most important schemes generally mentioned by both agricultural labourers and landowners were the distribution of free rice and other subsidised food items through the ration shops and the additional income agricultural labourers and other eligible people derived from the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The free ration rice was an important contribution to people's household resources and made agricultural labourers more independent from the landowners. Furthermore, since 2008, the MGNREGA[208] provided those village residents who registered for it with 100 days of guaranteed paid work per year. Since every participant was guaranteed 100 days of paid work per year, the scheme was locally called '100 day work' (*nuuru naal veelai*). This work was allocated through the village panchayat and intended to benefit the village. Tasks included the cleaning and maintenance of river irrigation channels and the bunds that surrounded them, the digging of water storage tanks, or the planting of tree saplings along the road. This programme, among other things, compensated agricultural labourers for the loss of income opportunities they had suffered with the mechanisation of major tasks in paddy cultivation, mainly ploughing and manual harvesting, since the 1980s. Given that a woman usually earned about 100 to 150 INR per day in agricultural labour, the extra 100 days of work at approximately 125 INR each were quite extra-ordinary.[209] The additional income and stable work afforded agricultural labourers with more financial independence and a better bargaining position vis-à-vis the landowners.[210]

[208] The official name of the law passed by the Central Government was '*Makaatmaa kaandi deeciya uuraka veelai uṟudic caṭṭam*' in Tamil, while the scheme implemented by Tamil Nadu state was called '*Makaatmaa kaandi deeciya uuraka veelai uṟudit tiṭṭam*.'

[209] The provision of free noon meals to children in government schools was another important programme making poor members of lower castes financially more independent, as were the availability of public kindergartens and primary and secondary schools close to the village, the provision of electricity to all houses, and the availability of public water tanks in all streets of the village (compare Harriss et al. 2010, 51-55).

[210] Indeed, the MGNREGA was highly unpopular among most larger landowners, who complained that agricultural labourers would prefer working in the MGNREGA over hard work in agriculture and no longer had sufficient incentive to engage in the latter. They argued that the free ration rice and the salaries from the MGNREGA – in combination with the fact that the young generation was almost entirely absent from agricultural labour – were causing what they called the 'labour problem,' an insufficient supply of agricultural labourers to meet the demand for work, which resulted in shortages in agricultural labour and damaged farmers' livelihoods and agricultural productivity. However, according to our observations and various people's statements, able-bodied male agricultural labourers only attended the scheme when there was no other work for them, as they could earn more than twice as much in paddy agriculture. Similarly, able-bodied female agricultural labourers opted for agricultural work rather than work in the MGNREGA whenever the former was available and saved the 100 days of paid work for the times when agricultural employment was unavailable. Indeed, several agricultural labourers argued that due to the increasing lack of water and increasing mechanisation, agricultural labour did not provide them with a reliable or predictable income anymore and they needed the MGNREGA to provide their families with a more secure and regular income. The absence of young

It was partly with the help of these and other schemes that agricultural labourers had negotiated better working conditions and higher wages for agricultural work in the preceding years. According to agricultural labourers, their working conditions had significantly improved over the last decade or so. Working hours and the speed and intensity of the work had been markedly reduced. According to my interlocutors, for sapling transplantation, for example, three women used to be hired to transplant an area of 100 *kuzi* (1/3 acre). Now, five women were hired for the same area. Similar improvements were reported for the other agricultural tasks. My interlocutors further stated that wages for all tasks had risen steadily over the last decade, many relating the rise in wages to the introduction of the MGNREGA.[211] Male and female agricultural labourers reported that they used to start working at about 6 am and would work until 1 pm or even into the afternoon or evening, while not having breakfast but only one hastily eaten meal at around 11.30 or 12 pm and a late dinner after work.[212] Nowadays, men were often given *iḍli* purchased from the tea shops by their employers for breakfast, while their work started at 7.30 or 8 am and went on to no later than 2 or 3 pm, while women (at least in theory) now had the opportunity to eat before starting their work, which usually did not start before 9 or 10 am. Furthermore, for several years it had now been customary for landowners to provide agricultural labourers with tea and fried snacks from the tea shops at least once during their working hours, usually around noon. This also gave the agricultural labourers the opportunity to take a longer break. While they still had to perform very challenging physical labour under difficult circumstances, several agricultural labourers described their current work situation as much better in comparison to the working conditions they had faced a decade or more ago.

Kapadia (1995, 200-204) describes that Pallar girls had to take over many domestic responsibilities instead of going to school, due to the heavy workload of their mothers, who

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people in agricultural labour was thus likely a more significant restrictive factor on the supply of agricultural labour than the MGNREGA.

[211] Based on a survey in a village in Tamil Nadu in 2008 and 2009, Harriss et al. (2010, 55) conclude that agricultural wages at the time equalled the value of 6 to 7kg of rice for men and 3kg for women per working day. This, they argue, constitutes a significant increase when compared to the wage rates recorded by Guhan and Mencher (Guhan/Mencher 1983a; 1983b) in the same village in 1981, which, according to Harriss et al. (2010, 55), translated into 3.4kg of paddy for men and about half this amount for women. The (conservatively estimated) average of the daily wages in paddy agriculture we recorded in 2014 and 2015 roughly translated to a little more than 3kg of rice purchased in private shops for women and 7 to 8kg for men. These calculations are based on the observation that rice of low quality could be purchased for about 30 INR per kilo in private shops and that women would usually earn 100 INR and men about 200 - 250 INR per day. These are, as stated above, conservative estimates, since women rarely received less than 100 INR but sometimes could make up to 170 INR in transplantation work (see the section on unequal remuneration in this chapter) and men rarely received less than 200 but sometimes up to 300 or even 350 INR per day for work in paddy agriculture. Furthermore, each family received 12 to 20kg of ration rice free of charge from the ration shop each month. The wages of up to about 1000 INR that couples could earn together in sugarcane cutting are not included in this calculation.

[212] This fits Kathleen Gough's descriptions from the mid-1950s, according to which women in transplantation, for example, usually worked from 6 am until 2 pm with only a short break of a few minutes in between to drink rice gruel (Gough 1981, 224-225).

worked in agriculture. In Kaveripuram, this was no longer the case. Since women's workloads in agriculture were less, many of them now performed the domestic tasks themselves, even during the labour-intensive seasons, while their daughters went to schools and colleges. Despite having to perform less intensive agricultural work, female agricultural labourers thus still faced a very heavy workload, since they had to perform most domestic chores, too. Furthermore, as I will show later, for paddy transplantation women often deliberately reduced their numbers to earn more money per person, thereby taking on an even heavier workload. This latter strategy has also been described by Kapadia, whose female Pallar interlocutors did the same (1995, 226-227).

Most landowners now behaved much more respectfully towards the agricultural labourers than before. After all, they were to some extent dependent on them, while many agricultural labourers could now draw on other sources of income and were thus less dependent on the landowners. For instance, one of the first things that one of the richest and most powerful Muppanar landowners told Chakravarty and me was that nowadays one had to speak nicely to and joke with the agricultural labourers or they would not appear for work. Most larger landowners had not only changed their tone when speaking to agricultural labourers. I also witnessed several times how Muppanar landowners asked agricultural labourers for their opinion or advice on the right time to plant certain rice varieties or the amount of yield these varieties produced, the right mixtures, quantities, and application times of certain fertilisers and other agro-chemical inputs, the effects of certain weather conditions, or the nature of certain insects affecting their plants. These conversations were carried out in a collegial or friendly manner, affirming the agricultural labourers' expertise. Agricultural labourers would not shy away from disagreeing with landowners, nor from giving them advice that the latter had not specifically asked for, either.

Changes had also occurred in the rules of bodily posture in the fields. A former Brahmin landowner narrated that agricultural labourers used to touch his feet after the puja for the first ploughing ritual. Similarly, Gough describes the interaction between female Dalit agricultural labourers and Brahmin landowners during the first transplantation of the year (see Chapter 3) as follows:

> 'On arrival at about 10:00 A.M. the landlord stood on a bund near the fields. Each Pallar woman approached him with a small bundle of seedlings in each hand and bowed three times, touching the ground with her seedlings about six feet away from him. At the *panchayat* president's first transplanting he held a cane with which he lightly hit the women's heads when they bumped into each other or scrambled before him, as he shouted at them to be respectful and orderly. [...]. At the end of the workday, the women assembled at the back door of their landlord's house to sing final songs blessing his family. Through his Non-Brahman servant the landlord paid them their wages of cash or paddy, together with small quantities of betel and areca nuts for chewing, rice, tamarind, chillies, salt, and sometimes dhal for their families' evening meal.' (Gough 1981, 223-224).

None of these practices were performed in Kaveripuram anymore. Agricultural labourers did not touch the feet of landowners, nor did they bow down before them or maintain a distance of 6 feet. Landowners would not demand those things or hit them on the head with a cane, either. Indeed, while agricultural labourers bowed down before the deities, the saplings, and senior labourers during the puja (see Chapter 3), they did not include the landowners in this showcasing of submissive respect, according to my observations. The women, further, did not visit the landowner's house or sing songs to bless his family. Wages were often paid by bigger landowners through an agricultural labourer who was designated the landowner's assistant, or through the wife of this agricultural labourer in the case of female workers being paid. This assistant and his wife would be the only people to visit the landowner's house and would bring the money to the other workers. Betel leaves and ritual food offerings were distributed to the agricultural labourers directly after the puja in the fields (see Chapter 3) and the wages they received for their work were entirely monetary.

While the increased bargaining power of Dalits as workers had been influential in improving their working conditions, salaries, and their treatment by higher caste landowners, some Dalits had further acquired significant agricultural assets, such as lands and tube wells. These holdings were mostly located in the northern paddy fields, where their physical presence was a testimony to how significantly some Dalits' socio-economic status had changed.

Changes in the Ownership of the Means of Production

The fields to the north of the village comprised many small holdings belonging to owners and share-croppers of various castes and classes. It was in this area that Dalit ownership of the means of production was most pronounced. As illustrated in Chapter 2, many Pallar families had received small land grants of 50 *kuzi* (1/6 acre) of temple lands each in this area from one of the three formerly dominant Brahmin landowners. However, with the exception of several very large holdings ranging from 7 to 15 acres owned or cultivated by wealthy Muppanar landowners, many significant holdings in this particular area were owned or cultivated by Dalits, while some formerly landless Muppanar and Padaiyacci cultivators had also acquired significant amounts of land for *otti* there. The term *otti* was used to designate the most common form of land tenure other than owning the land. In the case of *otti*, the cultivator would lend the fieldowner a fixed, large sum of money, which would equal about 50% of the land's market value. He would then be allowed to cultivate the land as if it were his own until the landowner could pay him back the entire sum (see Kapadia 1995, 186; Münster 2007, 101). *Otti* contracts were usually made for three years, although they automatically extended if the landowner could not pay back the money on time.

Notably, the son of a senior Paraiyar agricultural labourer had purchased three acres of land in the village and held share-cropping rights to another two acres of temple lands. Since the son lived and worked in Thanjavur, being employed in a bank, his father took care of the lands himself and had given part of the paddy lands to a wealthy non-Brahmin woman from another village for *otti*. There were two major landowners of the Paraiyar caste, who lived in a neighbouring village and held land in Kaveripuram. Both of them had worked in prestigious government jobs, were retired now, and received monthly government pensions. One of them owned three acres of land, which he had purchased upon retiring, while the other had acquired three and a third acres from an absentee Brahmin landowner more than 30 years ago. Another man from Kaveripuram's Paraiyar Street, who had also worked for the government and was now retired, owned and cultivated three acres of paddy land.

Several farmers worked as bus conductors for the government and had acquired land with the help of their salaries, the cultivation of which they also financed with their salaries as well as with loans. A government bus conductor from the Pallar Street, for example, had purchased three acres of land, on two of which he cultivated sugarcane and on one of which he cultivated paddy, about five to six years prior. In the Paraiyar Street, a government bus conductor had been cultivating 200 *kuzi* of paddy land for 15 years. A formerly landless Muppanar bus driver from Kaveripuram also cultivated almost three acres of land for *otti*.

There were also several agricultural labourers who did not engage in government work but had either inherited significant amounts of land or had saved money from wage labour and invested it in getting cultivation rights to agricultural land through *otti*. One resident of the Pallar Street, for example, owned four acres of paddy land, which his father had purchased. Another Pallar male agricultural labourer cultivated 3.3 acres of land for *otti*, while three other Pallar agricultural labourers each cultivated 1 acre of land for *otti*. A middle-aged agricultural labourer from the Paraiyar Street cultivated paddy on an acre of land he had acquired for *otti*, too. Another Paraiyar agricultural labourer had bought 200 *kuzi* of elevated land from a Muppanar landowner more than a decade ago and cultivated sugarcane on that land. In June 2014, he installed a tube well with a motor pump to irrigate his land. A formerly landless Padaiyacci agricultural labourer from a neighbouring village cultivated four and a half acres of *otti* lands in the northern fields.

Another important change had taken place in the ownership of the means of irrigation. With the increasing shortage of river water in the preceding decade, those farmers who could afford it had begun to have tube wells erected in the canal-irrigated lower lands to the north of the village. These groundwater-based irrigation technologies had acquired great significance, as it had become impossible to plant two paddy crops without tube well irrigation and was becoming increasingly difficult to even cultivate a single season of paddy purely with river water (see Chapter 4). As a result, there were more than 15 tube wells in the low fields on the

northern side of the Kaveri. While most of these had been erected by Muppanar farmers, four of them belonged to Paraiyar and two to Pallar farmers.[213] Two of the most prominent and centrally located tube wells belonged to the two Paraiyar landowners from a neighbouring village. Another tube well belonged to the absentee son of a senior Paraiyar agricultural labourer, while another small Paraiyar landowner – as mentioned previously – had erected a tube well close to the river in 2014. Another tube well was owned by two brothers from the Pallar colony. Most of these bore wells were centrally located and several Muppanar landholders depended on them for irrigating their fields and thus paid their owners rent for the water they used.

While most of the land, tube wells, and motor pumps around Kaveripuram were owned by the members of wealthy and powerful Muppanar lineages, the lands that had been acquired by Dalit and previously landless non-Brahmin cultivators were almost exclusively concentrated north of the village. In this area, therefore, many landowners and cultivators of different castes worked in fields adjacent to one another and regularly engaged in interactions with each other throughout the cultivation process. The composition of the cultivators had thus become very diverse and the changes in ownership and working conditions as well as new interdependencies between cultivators of different castes, for example in irrigation, ploughing, or harvesting, encouraged altered behaviour between agriculturalists of different castes.

Changing Relations, Interdependence, and Cooperation in Agriculture

In some cases, the changes in the ownership of the means of production resulted in the enactment of caste-reversed landowner - agricultural labourer relationships. Two Paraiyar landowners, for example, had hired assistants from ‘higher’ castes than their own to look after their fields, take care of the irrigation, and organise weeding, spraying and other operations. One of them had hired a Pallar couple as his assistants, who leased land for cultivation themselves and also worked as agricultural labourers. The couple reported proudly that they had been his trusted assistants for over a decade. Apart from the above mentioned tasks, they were also responsible for hiring the agricultural labourers for all major operations, such as transplanting paddy. This landowner was highly respected among the Dalit and non-Brahmin landowners, cultivators, and agricultural labourers, and had a reputation for being kind and helpful. The other Paraiyar landowner had hired two male assistants to work for him. His first and senior assistant was an agricultural labourer from the Pallar street and his second assistant was a Muppanar agricultural labourer. Both these men spoke highly of their employer.

[213] One of the borewells also belonged to the land leased by the Padaiyacci farmer mentioned previously.

Cultivators' dependency on seed purchases, hired labour, and harvesting machines encouraged cooperation among the small cultivators in the northern and north-western fields across castes. Since most of them owned less than an acre of land, several groups of five to six farmers each jointly sowed paddy seeds and coordinated the transplantation dates for the saplings to minimise costs and prevent labour shortages.[214] These groups further jointly arranged for harvesting machines, since most of their landholdings were too small to make it worthwhile for machine operators to visit them individually or their fields could not be reached without the machine's moving through other people's fields first. While most of the small landowners in this particular part of the fields were Pallars, one of the two Paraiyar landowners from a neighbouring village and several Muppanar farmers participated, too. For example, a big Muppanar farmer, who also cultivated paddy on land he held for *otti* from a Paraiyar landowner, purchased his paddy saplings from one of the major Pallar landowners, who sowed and cultivated them for him in his field.[215]

Another important change had been triggered by the introduction of tractors and – more recently – the much smaller and more practical power tillers (compare Harriss et al. 2010, 52). The overwhelming majority of my interlocutors could not afford purchasing tractors or power tillers, so that the few people who owned a tractor or power tiller[216] were in great demand, a demand which had also changed labour relations across castes. One of the biggest and most respected landowners in the area, a middle-aged Muppanar man, was the owner of one such power tiller and regularly rented out his services to other farmers. During the transplanting of the *kuruvai* crop in 2014, I often saw him personally ploughing the fields of other landowners and cultivators from all castes. He maintained good relationships with the Pallars, making jokes and addressing them in a friendly manner. He also addressed the two

[214] The amount to be paid to the farmer who sowed the paddy seeds for all of them in his field was reportedly about 300 INR for an acre's worth of saplings.

[215] There was also cooperation and solidarity between the agricultural labourers of the Paraiyar and Pallar castes. Agricultural labourers from both Dalit streets regularly informed agricultural labourers from the respective other caste about work opportunities. It was, for example, not uncommon to witness women from both Dalit castes transplanting paddy together in the same field. Several women working in transplantation stated that there was an unwritten law of solidarity across castes between them and that they would not send one or two additional women from the other caste, who needed the income and wanted to participate in transplantation, away. The extent to which such solidarity was allowed and taken advantage of, however, varied depending on the particular landowner, the size of the holding, the agricultural labourers involved, and the degree of labour shortage at the time. One time in July 2014, so many women showed up for transplantation in one of the biggest fields that their individual salaries on the first day dropped to only 85 INR per person. According to a woman from the Paraiyar street, however, on the second and third days they received more than 100 INR per person per day, as less women showed up to work subsequently. On the other hand, when the small Pallar landowners carried out the transplantation of their joint saplings in the northern fields, the Pallar women mostly shared the work amongst themselves and made sure that each of them would receive significantly more than the contractual 100 INR (by reducing the number of agricultural labourers). Male landowners and cultivators from the Pallar and Paraiyar streets often called male members of both castes to work in their own respective fields.

[216] According to several interlocutors, there were an estimated five to six tractors and two to three power tillers in the village and its immediate vicinity.

large Paraiyar landowners who lived in a nearby village – who were both older than him – in a polite manner.

Improvements in the economic situation of Dalits and formerly landless and poorer non-Brahmins and the corresponding changes in the ownership of the means of production also led to the blurring of some of the previously described distinctions in clothing, appearance, and degree of entering the fields between castes and classes in paddy agriculture. Most of the Paraiyar and Pallar landowners who had other sufficient sources of income did not engage in agricultural daily wage labour and only worked in their own fields. Similarly, as stated in Chapter 2, almost no Dalits below the age of 30 conducted agricultural wage labour. Working in one's own fields, however, seemed to be a matter of pride and joy for some Dalits who had recently acquired lands, were financially independent from landowners, and did not depend on agricultural wage labour for a living. A Pallar landowner who derived his income from work outside of agriculture, for example, told me that he conducted agriculture as his 'hobby.' He clearly enjoyed developing his fields and working in them. One of the Paraiyar landowners from a neighbouring village, while having no financial pressure to do so, took part in the agricultural work in his fields himself, too. Before and during transplantation, he worked in his fields with the large hoe, clearly enjoying the work. The Muppanar and Padaiyacci cultivators who did not own lands but cultivated lands for *otti* worked in their own fields, too. Among the Dalits who regularly carried out agricultural daily wage labour, many stated that they took pride in their skills and reliability, while others stated that they had no other choice than to work in agriculture.

As will be illustrated in the following section, while the relations between members of different castes in agriculture had changed considerably, the ways in which they behaved towards one another in agricultural contexts had also changed significantly.

'There are no Castes in Agriculture!:' Friendship, Solidarity, and Egalitarian Behaviour in Agriculture

One early morning, I went to see a small Muppanar landowner. When I arrived, he and the four male agricultural labourers he had hired, two Paraiyars, one Pallar, and one Ambattar from the Paraiyar Street (see Chapter 2), were sitting in a small circle eating *iḍli* and *caambaar* from the food shop for breakfast together. During the meal he asked the agricultural labourers several times with a soft voice whether they wanted more *caambaar*. The labourers addressed him and each other with the informal '*nii*' form, instead of the formal '*niiṅga*,' while he also addressed them with the '*nii*' form. Indeed, all of them acted amicably and informally with one another. They all paused after breakfast to chew betel leaves and chat, before starting their work.

Such familiar, informal, and egalitarian behaviour between Dalit and Muppanar agricultural labourers and small landowners and cultivators was so common, that it was sometimes referred to – or enacted as – the norm by my interlocutors, and instances of overt caste discrimination were seen as diverging from this norm.[217] Indeed, a sentence I heard several times from different interlocutors was 'there are no castes in agriculture.' What this sentence referred to was an almost complete absence of the enactment of caste distinctions between the agricultural labourers, cultivators, and landowners of different castes who worked or owned land in the northern fields, excluding some of the most wealthy and powerful landowners of the Muppanar caste. When working together, agricultural labourers of all castes and both genders generally shared the same cups or plastic bottles for drinking water. Male agricultural labourers of all castes would also sit down and have *iḍli* together, while both the men and the women would sit down and drink tea and eat fried snacks, such as *booṇḍas*, together. Also, virtually all Dalit landowners and cultivators and most of their wives, as well as most of the small and a few of the larger non-Brahmin landowners and cultivators would sit and chat together with the agricultural labourers they hired and also have tea and fried snacks or even eat food alongside them. During such breaks from work, people would usually be sitting together on one of the borewell platforms or in similar larger spaces; or sometimes even on the small bunds in between the paddy fields. The mood would mostly be light, people would be chatting, exchanging gossip, telling each other jokes, or making fun of each other. Betel leaves or chewing tobacco would also regularly be passed around among everyone present.[218] Often an implicit sense of equality and equal entitlements could be observed in the way members of different castes interacted with one another. While Raja and I were talking to a Muppanar farmer in the paddy fields, for example, a male Dalit landowner approached us and – without asking or hesitating – took chewing tobacco out of a plastic bag that the Muppanar farmer was holding in his hands. He then joined the conversation, several times interrupting the Muppanar farmer. In another instance, Raja and I attended the paddy transplantation of a Muppanar farmer. The transplantation was carried out by Paraiyar women. During transplantation, the farmer's wife herself filled water from a big vessel into plastic bottles using a metal cup and brought them to the agricultural labourers. Clearly concerned with the women's well-being, she kept asking them if they wanted more water. She herself

[217] For example, in one case, a Muppanar landowner from a neighbouring village publicly scolded a male Muppanar agricultural labourer for refusing to pass the common drinking water pot to a female Dalit agricultural labourer during transplantation.

[218] In banana and sugarcane agricultural work, there were no caste-specific tasks and Muppanars, Pallars, and Paraiyars worked alongside one another. However, during sugarcane cutting, which constituted the most significant agricultural work outside of paddy agriculture and was often carried out by married couples, food or snacks were not provided. Each couple brought their own food, which the respective wife prepared in the morning, in steel containers. Couples of the Paraiyar, Pallar, and Muppanar castes all worked side by side, but each couple ate their own food.

kept drinking water from the same bottles, too. Later on, she also sent me into the field to bring water to the agricultural labourers, who had asked for a refill.

While solidarity was practiced across castes in the northern fields, wages in paddy agriculture were also strictly egalitarian for everyone. Landowners and cultivators from all castes paid the same wages for agricultural tasks to everyone, regardless of the latter's caste. Muppanar, Pallar, and Paraiyar landowners paid their kin the same rates that were paid by non-kin landowners and agricultural labourers asked everyone for the same wages, even their own kin. Contractual rates were even enforced between a Pallar landowner in his 60s and his two adult sons who plucked the saplings from his nursery.[219]

While the fields were one place in which inter-caste mutuality could be practiced to some degree, the tea shop adjacent to the northern and north-eastern fields was another place where landowners, cultivators, and agricultural labourers of all castes sat together and engaged in often quite amusing conversations. The tea shop was frequented mostly by men, but Dalit women working in agriculture or in the MGNREGA could also be seen there, often standing in front of the shop. The tea shop was run by a non-Brahmin couple, who also lived in the same building. Most often the man would stand in front of the stove preparing tea or coffee, while his wife could be seen standing in the other corner of the shop, deep-frying snacks over a fire place. The man addressed everyone, regardless of their caste and gender, in a friendly tone. I saw him joke around with men and women from all castes. Even though the caste affiliation of the customers was clearly known to everyone present, they were all served tea and coffee in the same metallic cups, which were cleaned in the same water basin, thereby breaking down physical caste segregation to some extent (compare Gorringe 2005, 112-114). Customers often engaged in discussions about agriculture and other topics. They also joked around and made fun of one another. One day, for example, I was talking to an agricultural labourer from the Paraiyar street in front of the tea shop, when a Muppanar farmer came up from behind and crumbled *vaḍai* over his head while grinning at me. A bit later on the same day, a small landowner and agricultural labourer from the Paraiyar street self-ironically proclaimed that he and his friend, a landless agricultural labourer, had to apply fertilisers all day, because they owned so much land, which made everyone laugh.

A sense of camaraderie and friendship between workers and farmers from different castes extended beyond simply being amicable while working together. One day towards the end of October 2015, Raja and I were walking along the road, when we met our friend Rakesh,[220] a non-Brahmin farmer, who was returning home from his fields on his bicycle. He stopped

[219] The only exception to this rule was the ripping off of the upper ends of the leaves from saplings that were already very tall during transplantation to prevent crop damage (see Chapter 3). I witnessed Pallar labourers do this once in a Pallar landowner's field. A non-Pallar farmer subsequently complained to me that the Pallar agricultural labourers would do this only for their kin without charging extra.

[220] The names I have assigned here were chosen not to resemble the original names of my interlocutors, so as to protect their anonymity.

to chat with us. Soon Murugan, a non-Brahmin farmer and large landowner, appeared, riding his motorbike. He stopped and put his hand inside Rakesh's breast pocket pretending to look for money. He laughed knowingly when he did not find any and drove away again. Immediately afterwards, Vijayan, a Paraiyar agricultural labourer who had been riding his bike along the road towards the neighbouring village, joined our conversation, leaning on Rakesh's bicycle and asking him how his transplantation was going. Rakesh answered by telling him to leave, jokingly hit him on the head, and abused him. Everyone laughed. Then, Rajendran, a farmer from the Pallar Street, arrived on his motorbike, coming from the neighbouring village. He produced money from his pocket and a big bottle of beer he had been hiding under his shirt and gave them both to Rakesh (he had bought beer with Rakesh's money, which is why Rakesh's pocket had been empty earlier, when Murugan inspected it). Throughout all these exchanges, everyone involved had, as always when they got together, been addressing all the others using the impolite '*nii*' form, omitting any formal indications of distinction.

Similarly, a male Muppanar agricultural labourer and a male Pallar agricultural labourer from Kaveripuram were close friends with one another and drank alcohol and ate out in food shops together. Friendly and well-meaning behaviour also existed between women of different castes. One morning, Chakravarthy and I visited the Pallar Street. To our surprise we encountered a non-Brahmin woman having a jolly conversation with one of the senior Pallar women. The non-Brahmin woman explained that she had hired one of the poorest Pallar couples to take paddy straw to her house, paying them a generous 200 INR per person.[221]

Anthropological studies have shown how in government-operated, 'modern' workplace environments in India, rules of caste segregation are often deliberately transgressed in the name of a caste-free 'modernity.' Employees from different caste backgrounds have thus been shown to cultivate close friendships with one another and, for example, consume food and drinks together or cook for one another (Parry 1999a, 1999b; Strümpell 2008). In his study of caste interactions in the caste-diverse settlement housing the employees of the powerhouse of a state-operated hydroelectricity project in Odisha, Strümpell finds that caste restrictions regarding the consumption of food and eating together are regularly and deliberately ignored by the workers, who cook rice for each other, dine together, and exchange self-made sweets. These exchanges and regular instances of commensality include Dalits, who also cook rice and prepare foods and sweets that are eaten by higher-caste workers (Strümpell 2008, 362). Strümpell further argues that those workers who spend the most time together at work and who heavily rely on cooperation for their tasks maintain especially 'close-knit relationships' with one another. They spend much time socialising and engaging in '… a symmetric exchange of food during lunch breaks…' (Strümpell 2008, 363). While Strümpell's

[221] Women were usually paid only 100 INR for harder and longer work in paddy agriculture, while 200 INR for moving straw was also a really good wage for a man.

interlocutors working in such places understand themselves as part of a progressive and 'modern,' casteless environment and community, Strümpell shows that they construe 'the village' as the opposite, a place characterised by 'backward' traditions and adherence to caste norms (Strümpell 2008, 353-354; see also Parry 1999a, 117). In his study of the public sector Bhilai Steel Plant and of a private engineering company in Madhya Pradesh, Parry shows that the commensality and caste-transgressing solidarity he finds among the public sector employees is not practiced amongst the private sector employees, who adhere to caste restrictions when interacting with one another (Parry 1999a, 133-139; Parry 1999b, 146-150; Strümpell 2008, 355).

While there is thus a difference between public and private-sector work environments, Strümpell further argues that a major reason that his interlocutors engage in the caste-free interactions in the worker settlement is that they do not reside **exclusively** there but still consider their familys' native places their permanent homes. Indeed, most workers regularly travel back to their home villages, where they take part in ceremonies and rituals of worship in accordance with their caste affiliation, and eventually marry within their caste (Strümpell 2008, 374-376). The caste-free space of the worker settlement is thus to some extent a liminal (Turner 1969, 94-108; van Gennep/Kertzer 2019) space where common identities of being co-workers and being 'educated' enable people to constitute a community that is separate from the socially embedded identities and obligations they maintain in relation to their home areas and their larger families and relatives (Strümpell 2008, 374-376). In other words, the environment of the work settlement disembeds people from the 'meshworks' and embodied interactions of their native places, which would prevent them from sharing embodied qualities, for example through food, with members of other castes.

As I have shown here, the enactment of egalitarian behaviour and cross-caste friendships and banter – based on working together – took place within Kaveripuram, even though agriculture was not run by government enterprises prescribing caste-equality but, to the contrary, was based on a division of labour according to caste that was anchored in the physical and social space of the village, the perceived embodied distinctions between castes, and the relations of the paddy meshwork. This observation thus shows that egalitarian behaviour does not just take place in 'modern,' disembedded spaces where governmental ideologies of progress and equality are implemented (as in Strümpell's and Parry's studies) but can also develop without such imposition of ideology in a supposedly 'traditional' setting, such as a rice-cultivating village. Of course, it needs to be noted here that the food consumed together by my interlocutors was 'neutral' in that it was almost always purchased from shops (where members of non-Brahmin castes prepared it) and home-cooked food, which could be understood as sharing embodied qualities with its cooks and their houses, was not generally served or shared in the fields.

Several factors can be seen to have contributed to the amicable and informal atmosphere among landowners, cultivators, and agricultural labourers of different castes. One of these is certainly the previously described socio-economic emancipation of agricultural labourers, the related changes in the ownership of the means of production, and the resulting shifts in power relations and relations of dependence between people from different castes in the paddy economy. As a result, farmers and agricultural labourers from different castes found themselves in similar socio-economic positions, having similar interests, problems, and experiences. They were more able to relate and empathise with one another and to provide each other with advice or help. Furthermore, in the northern fields, a patchwork of plots and tube wells belonging to people of various castes who depended on one another had developed, setting the stage for frequent transactions and cooperation.

Another contributing factor could be the changing demographic context. As illustrated in Chapter 2, there was a general trend for the young generation aged 30 and below to leave the villages in search of higher education and professions or jobs outside of agriculture in the cities and towns. This trend was supported by most members of the preceding generation, many of whom, when asked, stated that they saw no future for their children in agriculture. Many wealthier and some of the poorer families sent their children, including the girls, to private schools and colleges. In fact, nearly all village residents who could afford it sent their sons and daughters to colleges, while almost all families were very concerned with their children's school education. As one big Muppanar landowner told me, the only capital that mattered for the young generation now was education. Relocating elsewhere for employment after education was also increasingly common and a significant amount of young people had left the village and the surrounding area permanently for work or marriage (see Chapter 2). There was thus a sense of discontinuity among agricultural labourers, cultivators, and landowners, who noticed that their heirs would most likely not take over their professions or keep cultivating the land they owned. There was a clear cut in age, as village residents below the age of 30 were hardly visible in agriculture at all. Accordingly, most farmers and agricultural labourers were aged 40 or above and had been working with each other for a long time. This sense of discontinuity and their long-standing relations with one another might have contributed to the sense of solidarity and equality among them.

Enacting Caste Equality at the TNC

As illustrated thus far, the specific conditions in the northern fields and related venues, such as the tea shop that was a hub for the people who worked in those fields, were conducive to amicable and inclusive behaviour across caste boundaries. In this section, I look at how caste distinctions were negated among the staff of the nearest government-operated TNCSC Direct

Purchase Centre (locally known as the 'TNC'), which employed several agricultural labourers from Kaveripuram and other nearby villages.

At the TNC, there was a considerable degree of solidarity and trust between the loadmen recruited from different SC, OBC, and BC castes as well as between the loadmen and the three rotating officers – the bill clerk, the bill clerk helper, and the watchman – who were themselves recruited from various locations in the taluk and had various caste backgrounds. At one point during the research, for example, both the Bill Clerk and the Bill Clerk Helper were from Dalit castes, while the watchman was from a non-Brahmin caste. Similarly, people from the Paraiyar, Pallar, Padaiyacci, and Muppanar castes from several villages were employed as loadmen at the TNC. All of them frequently sat together and shared tea and snacks. One day, for example, I sat with the loadmen and two of the three TNC officers inside the TNC building for a while. One of the loadmen, who is a Paraiyar, went to get tea and snacks from a nearby shop. Once he came back, loadmen from different castes sat down on the ground together in a circle and he started taking the fried snacks out of a plastic bag and handing them to everyone. He then took out metallic teacups from a vessel and started pouring tea. He had brought the tea from the shop in a big metallic pot that belonged to the TNC. He first served the two officers present, who were sitting on chairs at the accounting desk, and then gave teacups to everyone else, including me. After everyone had finished their tea, he put all the cups back into the vessel for washing. TNC employees also shared the water they drank, which they kept in metallic vessels. Members of the TNC staff would also bring alcohol for one another from the shop or drink alcohol together.

Indeed, loadmen from different castes told me that caste did not play a role in their interactions; that they were friends, and united (*orrumai*) as a community. As one loadman explained, respect was afforded according to age among them, not caste. Indeed, the loadmen used the informal '*nii*' to address one another, regardless of their caste background.[222] The loadmen and government officers reportedly also attended each other's important ritual and festive events. One time, for example, I met several loadmen and two of the three officers (including a non-Brahmin officer) at a ceremony conducted by a Pallar loadman. The non-Brahmin officer ate the food at this function, as did the loadmen who were present and who belonged to various castes.

As a government institution, the TNC was required to be caste neutral (Strümpell 2008, 354-355). Furthermore, the loadmen were friends, sitting and drinking together, having worked closely together for many years, receiving the same salaries, and also sharing the same concerns. In fact, individual loadmen often came to the TNC even if they did not have actual work to do on that day, just to spend time together ('time-pass') with the others. Solidarity and cohesion among the TNC staff were also important since they represented the TNCSC and

[222] I also witnessed the higher-ranking bill clerk use the formal '*niiñga*' to address some of the loadmen.

its price policies, interests, and quality standards vis-á-vis the farmers (see Chapter 4). The TNC staff thus constituted a relatively caste-free and close-knit, public sector community that came close to those described by Parry and Strümpell. This community was, however, to some extent separate from the wider agricultural community previously described, due to their being part of the TNCSC (see Chapter 4).

While caste segregation could be overcome to some extent in agricultural settings, this did not generally extend to village residents' private homes. Even though farmers and agricultural labourers of different castes would behave amicably or even like friends in the fields, at the tea shop, or during MGNREGA, I never witnessed interlocutors of any caste invite friends of a 'lower' caste than their own into their home or offer them home-cooked food or go to one of the latter's houses and eat home-cooked food there. Eating home-cooked food in the house of a 'lower-caste' person still seemed to be an intimate and serious violation of caste segregation, as did inviting a 'lower-caste' person into one's own house and offering them food (compare Münster 2007, 186-188).

This situation can be compared to Strümpell's findings that work-related commensality and friendships across castes in the worker settlement are often not translated into similar caste-transgressive behaviour in one's village of origin. The difference, of course, is that in this study, the liminal space of caste transgression is not a workplace and settlement that is far away from the native village but rather comprises those locations within and around the home village that are associated with agricultural work as opposed to the domain of one's own house and family. In the next section, I will look at the distinction of gender-specific tasks and at gendered inequalities in remuneration in agricultural daily wage labour in paddy agriculture.

The Enactment of Gender in Paddy Cultivation

Kapadia (1995, 209-212) reports that in the village where she conducted her fieldwork, there was a strict division between 'male' and 'female' tasks in paddy cultivation and her Pallar interlocutors also strictly differentiated between these male and female tasks. Among my interlocutors, agricultural labour was similarly divided into male and female tasks. Sowing paddy (*vedai telikkiradu*), removing saplings (*naattu paṟikkiradu*), carrying sapling bunches on the head, working with the large hoe (*mambuṭṭi veelai*) and especially 'cutting' the bunds (*varappu veṭṭuradu*) of the fields with it, and spraying agro-chemicals were exclusively carried out by male agricultural labourers, while transplanting paddy (*naattu naḍuradu*) and manual weeding (*kalai paṟikkiradu*) were exclusively carried out by female agricultural labourers. Manual harvesting was carried out by both men and women (see Kapadia 1995, 214-215).

Kapadia describes that women would also take over men's agricultural tasks as long as they were not directly competing with men, that is either when they were carrying them out in their own fields or when there was a shortage of male labour. Men, on the other hand, would

never carry out female tasks (Kapadia 1995, 212, 214). In Kaveripuram, women also performed 'male' agricultural tasks in their own fields but did not perform them as agricultural wage work. I also witnessed men carry out women's tasks on two occasions. These, however, were certainly exceptions. I once witnessed one of the Dalit farmers carry out manual weeding work in his own field together with his wife. On one other occasion, I saw how a male Dalit agricultural labourer engaged in paddy transplantation along with the female agricultural labourers in order to speed up the work.[223]

Unequal Remuneration and Workload

In her study, Kapadia observed that male agricultural labourers were paid significantly higher wages - twice or more than twice the amount – for performing their tasks than women were paid for their work in paddy agriculture (1995, 211-214). In Kaveripuram, more than two decades later, the payment received by men and women for their respective tasks in paddy agriculture was similarly unequal. For instance, both the 'male' pulling out and the 'female' transplanting of the paddy saplings were remunerated according to standardised 'contract' agreements. Men received 500 INR for every 100 *kuzi* (1/3 acre) worth of saplings they pulled out, bundled, tied together in bunches, and carried to the main field. Women equally received 500 INR for every 100 *kuzi* of transplanted saplings.[224] While this seems equal at the first glance, two to three times more women than men would be employed for the same area. Accordingly, every individual woman received significantly less money than their male counterparts. Since the contract rates were fixed according to the area planted, women regularly increased their earnings per person by going to work in smaller groups, thereby reducing the number of people between whom the salary was divided but also having to put in more work per person. Kapadia describes the same phenomenon for her female Pallar interlocutors (see Kapadia 1995, 226-227).

It has to be noted that male agricultural labourers usually started their work at about seven or eight o' clock in the morning, while female agricultural labourers arrived in the fields between nine and half past ten. Men and women both usually worked until two or three o'clock in the afternoon. Men thus worked longer hours in the fields. However, apart from the fact that enough saplings needed to be pulled out and the main field needed to be flooded and ploughed before the women could start transplanting, women also arrived later, because they

[223] Not many female agricultural labourers were present on that occasion, so that he and another male agricultural labourer helped with the transplantation by holding the rope (see Chapter 3), rather than just levelling the fields and throwing female labourers the sapling bundles (*muḍi*) like men usually did during transplantation. In between moving the rope forward, he laid it down on the bund and transplanted paddy, too, to speed up the process.

[224] The measurements for both activities were based on the area transplanted, not the area from which the saplings were pulled out, as the nurseries were quite small and the saplings stood much closer together in the nursery than when they were transplanted in the main fields.

had to wash the dishes, shower, and perform pujas at home in the morning.[225] Women further had to perform most of the other housework as well, such as cooking dinner after coming back from work.[226] Those women who did not have electric stoves in their kitchens[227] also had to collect firewood for cooking. Given the earlier start of their work and their higher exposure to mud, men could arrive unshowered and wearing only a muddy shirt and underwear to work. Women, on the other hand, wore saris to work, folding up the petticoats and protecting the blouse and upper part of the sari by wearing old men's shirts above their saris.

Men were usually provided *iḍli* and *caambaar* for breakfast and tea and fried snacks at noon, while women were expected to eat at home before they arrived for transplantation and only received tea and fried snacks at noon. Many times, I encountered women who had not had time to eat before going to work and who thus worked on an empty stomach. One time, I witnessed how two women brought *iḍli* they had bought in the shop with them and ate it while standing in the fields.

Wages for cutting the bunds and for manual weeding were both fixed per person and not calculated according to specific area measurements. Manual weeding usually took from 9 or 10 o' clock in the morning until sometime between 1 and 3 o' clock in the afternoon. Each woman was paid a lump sum of 100 INR for such a day's work of weeding. The number of women employed varied according to the size of the field, but women could not earn more money by reducing their own numbers, since money was paid per person per day. Men received between 150 and 350 INR for cutting the bunds and levelling the fields with their hoes, the amount loosely depending on the size of the field and the resulting duration of the work. The latter could be anywhere between about two and eight hours. Again, men usually started earlier, around seven or eight o'clock, and received *iḍli* and *caambaar* for breakfast, while women started weeding approximately at nine o' clock. Depending on the workload, men could finish anytime between 11.30 am and 3 or 4 pm, while women usually worked until 1 or 2 pm, sometimes longer. Both men and women received tea and fried snacks at noon for all tasks. As can be seen, women received significantly lower wages than men. Wages for women were set at 100 INR per person (even though women could earn more for transplantation if they arrived as less than 5 people for 100 *kuzi*), while men would usually earn 200 INR or

[225] As illustrated in Chapter 3, married women were mainly seen as responsible for the flourishing of the family and the pujas they conducted were an important part of this process, the success of which had important implications for the women's social standing within their family and the larger community.
[226] Tasks such as fixing household equipment or carrying out construction work on the house were performed by men. Walking and feeding the cows was also often carried out by men.
[227]Electric stoves usually had one single cooking plate, while households without such stoves used conventional wood-fuelled stoves made of clay that held two or three pots and were located outside of the house. Only a few very wealthy households possessed gas stoves. Unfortunately, we did not gather any quantitative data on the use of different stoves. My impression was that between a third and half of the Pallar households and between a fourth and a third of the Paraiyar households used electric stoves. Quite a few housewives preferred using the clay stoves for special occasions, even if they owned electric stoves, as they felt that the food prepared on the former was of better taste and quality.

more and could receive up to 350 INR in agricultural tasks. Only wages in manual harvesting were 7 *marakka* of paddy per person for both male and female agricultural labourers. However, as stated previously, since machine harvesting was the norm now, the amount of manual harvesting work available had drastically decreased. [228]

Challenges to Bodily Distinctions and Unequal Payment

Both the division of agricultural labour between men and women and the unequal remuneration of the respective tasks were challenged in some instances. In late November 2014, for example, I witnessed women pulling out paddy saplings in the field of a Muppanar farmer. The women pulled out the saplings bowing down, rather than squatting or putting one knee in the mud like men did. When I enquired with them, the women told me that they performed both the pulling out and the transplantation of the saplings on the same day for 2500 INR per acre. They also received tea in the morning and rice meals (*caappaaḍu*) at noon. They lived in a village close to the Grand Anicut (*Kallanai*) dam. In their region, they told me, women also engaged in pulling out saplings. Since there was mostly banana cultivation and not much paddy agriculture there, they said, they did not find much work and therefore toured the villages that featured intensive paddy cultivation during the cultivation seasons. Every morning at 5 am they took the bus to go to work, arriving at their workplace for the day at around 6 or 6.30am. While the field's owner happily told me about how he had met the women and invited them to work for him, the women said that some male agricultural labourers had shouted at them when they arrived here. Indeed, the women undercut the local wages by about 500 INR per acre, while working longer hours. While walking back from the fields, I met one of the senior female Pallar agricultural labourers. She asked me about the women and told me that she, too, used to go to other villages for pulling out saplings commercially but that here, men claimed this work for themselves. A young Pallar woman told me that she did not know how to pull out saplings. She stood close to the fields, watching the women with so much apparent interest that one of the agricultural labourers doing the levelling work started mocking her about it.

The division of tasks and their unequal remuneration based on sex, while being prominent in paddy agriculture, did not extend to tasks performed for the MGNREGA. The latter being a government scheme, men and women received the same salaries. Furthermore, the labour supervisors, who recorded attendance and coordinated the work, were all

[228] Kapadia states that she was told by her interlocutors that wages for men and women during manual harvesting were equal. However, she observed that male agricultural labourers received additional 'gifts' from their employers on two occasions during the harvesting process and that the total wages received were thus unequal between men and women (Kapadia 1995, 214-215). I did, unfortunately, not enquire whether similar 'gifts' were regularly given to male agricultural labourers in Kaveripuram, too.

women.[229] Both male and female interlocutors, indeed, insisted that men and women were equal in MGNREGA work, not only receiving the same salary – their efforts thus being valued the same – but also being able to perform the same tasks. However, while the scheme was designed to be gender-equal, the stark gender differences in salary in paddy agriculture, the fact that men had more labour opportunities in paddy agriculture due to the gendered division of labour, and the fact that women were the primary caretakers of the family and household while at the same time being less flexible to look for outside employment due to being socially restricted in their movement, were manifested in (poorer) women of all ages and castes having higher attendance rates at MGNREGA than men. Indeed, only a few, elderly men seemed to be regular attendees. When asked about the noticeable absence of men from MGNREGA work, female participants explained that men did not attend it during the agricultural seasons, as their salaries in agriculture were much higher.[230]

As can be seen, the conventional distinction between male and female labour was challenged both by female agricultural labourers from another village and by the MGNREGA, which had been designed to be gender-equal. However, both in the case of women pulling out saplings in Kaveripuram as well as in the case of women from Kaveripuram pulling out saplings elsewhere in the past, the taking over of male tasks was not carried out in their own, but in other villages. Furthermore, while in MGNREGA work, men and women received equal wages and were, indeed, perceived as equal by my interlocutors, most men were less dependent on it due to receiving much higher wages in agriculture. Indeed, particularly female agricultural labourers viewed the MGNREGA as important, stating that agricultural labour had become irregular and unreliable. Having to feed their families, the income from the MGNREGA work as well as the monthly 20kg of free ration rice were often badly needed. Thus, while the MGNREGA was gender-equal, gender-specific responsibilities and opportunities influenced my interlocutors' participation in the scheme and the scheme did not seem to have an effect on the differences between male and female remuneration or the gendered division of labour in paddy agriculture. However, as stated previously, the MGNREGA, along with other governmental support measures, had likely contributed to increased wages in agriculture (compare Harriss et al. 2010, 55, 59-60).

Conclusion

In this chapter, I have shown how my interlocutors enacted and experienced caste, class, and gender distinctions through their bodily involvement in the fields and other places related to

[229] Non-Brahmins, Pallars, and Paraiyars each had their own supervisors, who were recruited from their respective settlement areas.

[230] As stated earlier, female agricultural labourers also preferred working in agriculture whenever work was available for them and tried to save the MGNREGA work for times when they did not have agricultural work opportunities. However, due to the gendered division of labour described in this chapter, women generally had less frequent agricultural labour opportunities than men.

paddy agriculture. While working in the fields, they carried out specific bodily movements, wore specific clothes, worked in specific locations, and received differential wages or incomes depending on their respective caste, gender, and class. Furthermore, the way they treated others and were treated by them depended on their caste, gender, and class, too. I have argued that the bodily enactment of caste and class in agriculture had become less pronounced and more balanced and that there was even egalitarian and amicable behaviour between landowners, cultivators, and agricultural labourers from different castes in various contexts and places related to paddy agriculture. The enactment of gender distinctions as expressed in gendered tasks and in inequalities in remuneration and workload between men and women, however, had remained largely unchanged in comparison to Kapadia's study, despite equal tasks and remuneration in the MGNREGA.

The deliberate transgression and ignoring of caste segregation in worker communities in public, governmental institutions in India is well documented (see Parry 1999a, 1999b; Strümpell 2008). In this case, the fields north of the village and other places and institutions associated with paddy agriculture – such as privately run tea shops – were enacted as such community spaces, where members of different castes had food and drank tea together, and shared water, betel leaves, chewing tobacco, and expertise, while bantering with each other. All of this happened despite the fact that most of these interactions – except for work at the TNC – did not take part in government institutions or outside of the immediate village context, as was the case in Parry's and Strümpell's studies, but within the village and during privately conducted agricultural activities.

However, these changes in behaviour should not necessarily be interpreted as an expression of a general political opposition to caste divisions among my interlocutors but can likely be understood in part as an outcome of changing circumstances in the paddy meshwork. As labour had become scarcer, agricultural labourers more independent, the ownership of the means of production and the resulting labour relationships more diverse, and as landowners, cultivators, and agricultural labourers from various castes found themselves in similar socio-economic positions and life circumstances, making similar experiences, and depending on one another, this partial enactment of equality among them was a sensible way of constructively dealing with this new situation. Furthermore, given that most of their children sought employment outside of agriculture, the agriculturalists in Kaveripuram were mostly of similar age groups and many of them had worked together for a long time. There was thus a sense of discontinuity in relation to the next generation that most likely also increased my interlocutors' feelings of camaraderie.

Caste was overcome and caste distinctions were deliberately ignored in many ways between the TNCSC employees, being that it was a government institution and thus by default intended and assumed to be casteless (see Strümpell 2008; Parry 1999a, 1999b). However,

this community was an exclusively male domain. There were no female staff in the Direct Purchase Centre, the community of officers and loadmen being characterised by same-sex friendships (compare Parry 1999a, 134-135).

During the MGNREGA sessions, ‘modern’ spaces of gender equality were also temporarily created and practically experienced by men and women of different castes, who performed the same work and received the same salary for it. However, the scheme was seen by my interlocutors more as alleviating financial pressure and giving agricultural labourers and poor village residents a more stable income than it was interpreted as challenging gender inequalities. Indeed, while the wages from the MGNREGA improved families’ welfare significantly, it did not challenge the unequal remuneration of men and women in paddy agriculture. To the contrary, as previously illustrated, unequal wages and labour availability in paddy agriculture affected male and female attendance of the MGNREGA.

Chapter 9: Conclusion and Outlook

In this study, I have shown how the increasing intervention of private-capitalist and governmental actors and institutions and the industrialisation, commercialisation, and mechanisation of rice production, distribution, and consumption influenced the ways in which my interlocutors enacted rice, themselves, and other actors and entities involved in their engagement with rice.

In this final chapter, I will summarise the findings and arguments of the previous chapters in relation to the concepts of meshworks and networks and embodied qualities and disembodied properties, which have informed my analytical approach throughout this book. I will then discuss the implications of this study's findings in relation to the larger themes of modernisation, capitalism, and disembedding and provide a short outlook.

Meshworks and Networks: Different Ways of Perceiving and Relating

I have argued in this book that the ways in which my interlocutors enacted rice and other actors and entities can be described using a meshwork or a network perspective, both of which can be understood as different ways of perceiving and imagining the interaction and interconnectedness of the different beings and entities involved in a situation and as different ways of relating with them.

A meshwork perspective means perceiving and understanding beings and things as existing within material media, being constituted of flows of substances and materials, and becoming physically enmeshed with one another. Such a perspective entails the understanding that beings are alive because of their enmeshment and that the qualities they exhibit are relational, in that these qualities, too, are constituted and perceived through enmeshment (Ingold 2011). A network perspective, on the other hand, entails perceiving beings and things as bounded entities that are separate from their relations. These actors and actants come to act and have specific functions or effects in relation to other actors and actants, in interaction with which they produce a certain outcome. Herein, the outcome of the interaction is relational, as are the specific effects the different actors and actants have within the network, but the actors and actants themselves are viewed and understood as bounded and independent objects. Thus, it is not their enmeshment or the way they are sensually perceived that matter, but their effects or functions in achieving a certain outcome through their interaction (Latour 2005, 2010; Law 1992; Ingold 2011; see Chapter 1).

In Chapter 3, I have argued that my interlocutors' perspective on rice as a developing crop, their staple food, and an important ritual and social item in what I have called the paddy meshwork, corresponds with Ingold's (2011) meshwork perspective in that my interlocutors perceived and described rice and other beings and things as constituted through the enmeshment and intermixing of different substances, all of which have specific qualities to

them that are relational, since these qualities, too, are influenced by the substances' enmeshment with other substances. These qualities, as articulated by my interlocutors, were physical, in that they were embodied by beings and things and physically perceived by my interlocutors. In certain rituals, for example, rice was used for blessings, because it embodied qualities that the recipients of the blessings should develop or maintain, such as the propensity to multiply, the capacity to grow and prosper, or the ability to care and nourish. These qualities were, of course, related to the actual physical capabilities of the rice, such as the capacity to grow sprouts, the ability of the plant to procreate and multiply, or the grains' high nutritional value and good taste. They were further relational in that they were enacted by my interlocutors through their engagement with and perception of rice.

I have further shown that village residents treated deities, ancestors, the sun and the soil, and certain animals and plants, including the paddy saplings and plants, as social actors engaged in the ongoing social-ecological process of the cultivation of life. Within these relations, a meshwork perspective emphasising the circulation of essence and strength, fertility and growth, and other desired and auspicious qualities within the social-ecological system – as well as the continuity of the latter – prevailed among my interlocutors. This meshwork-based understanding of rice and other actors and entities played a major role in interactions mostly limited to local actors and entities from and inside of Kaveripuram and what I call the paddy meshwork, that is the set of local actors, entities, and substances in the rice economy whose embodied qualities and histories of enmeshment were known and physically accessible to and perceivable by my interlocutors.

However, in situations in which the enactment of rice was significantly influenced by actors, entities, or substances related to capitalist or governmental, disembedded institutions and processes, my interlocutors tended to relate with the rice and the other actors and actants involved more in a network manner. I have shown that state and private actors and institutions from outside the village had, over the last decades, come to exert greater influence on relations within the paddy meshwork and the village. They did so through networks of brokers that had been established – or had established themselves – in relation to the dynamics created by their influence. The impact of these networks, in turn, created new kinds of connections within the paddy meshwork and the village, too. As explained earlier, I refer to them as networks, because they extended across large distances and involved actors, actants, and processes that were not directly perceivable by outsiders, such as by most village residents. Whether or how these actors and actants were enmeshed with one another and what embodied qualities they possessed was not accessible to the perception of most of my interlocutors or was not relevant in the situations and interactions I describe.

While, in the meshwork perspective, the processes of enmeshment that constituted rice or humans and their qualities were meaningful and of primary importance for my

interlocutors, the processes through and conditions under which the rice sold in shops, the current MSPs, or the electrical scales used for weighing the paddy came into being or travelled from their places of origin to the local shops and institutions were not part of how the brokers enacted them. In fact, they were not known to most village residents and brokers alike. Neither was it known to most of them, which substances, actors, and entities were involved in the production and distribution of shop or ration rice or agro-chemicals. Furthermore, while the natures and roles of persons and rice within the paddy meshwork were defined by their histories of enmeshment and their resulting embodied qualities – for example how the rice was cultivated, from which caste a particular person originated, or whether a person was considered an auspicious married woman or a child to be nourished with the right foods – in the networks, the actors and actants involved were primarily defined by their current function for a particular task or their current attributes as measured on the spot, their histories of enmeshment not being known or not relevant. The authority or function of a TNC officer, for example, was not related to his or her caste. Similarly, with which fertilisers the paddy sold to the TNCSC or to private merchants had been cultivated or to which pesticides it had been exposed did not matter, since what mattered for the actors and institutions involved were the weight and quality as assessed by the TNC staff or private paddy agents and the amount of money paid to the farmers according to these criteria (see Chapter 4). Indeed, as shown in Chapter 4, farmers engaged with the TNC officers or private paddy agents and with the devices they used not as part of long-lasting relationships or in relation to embodied qualities, but in relation to their functions in the exchange of paddy for money. These actors and actants were defined through their temporary effects in temporary, situational networks, not their embodied qualities in continuing meshworks; TNC officers, for example, were rotated every season, while farmers interacted with whichever paddy agent offered them the best prices for the current season.

In these networks, alienation and abstraction as described by Marx ([1844] 1959; 1969; Marx/Engels 1978) occurred between village residents and the rice and other actors and entities involved. As shown in Chapter 4, for example, the paddy purchased by the TNCSC and by private rice mills was separated from its producers and the social and ecological relations of its production in the paddy meshwork through being assessed, abstracted and converted into ‘symbolic tokens’ (Giddens 1990, 22-26; Tsing 2013, 23-25). The embodied qualities of the paddy were transformed into disembodied properties. The paddy was now treated as numbers of bags of a certain weight indicated in kg and, at the TNCSC, as possessing a certain ‘quality’ defined by different percentages and noted down on a sheet of paper, while the value of the paddy was enacted as a specific amount of money paid to the farmer in question (money itself being a prime example of a symbolic token according to

Giddens 1990, 22-26).[231] Furthermore, throughout the cultivation process, farmers had to interact with and depend on networks consisting of brokers, institutions, and other actants, such as agro-chemical inputs or power tillers. The constant need to pay money to brokers for access to different actants, such as fertilisers or harvesting machines, throughout the cultivation process forced farmers to treat the cultivation of paddy as a business venture. They had to keep track of and try to minimize expenses, while maximizing yields and profits. I have argued that these dynamics already alienated farmers from their paddy to some extent during cultivation, causing them to treat it as a commodity already before the harvest, the value of which was defined by the money they received for it after the harvest. They further had to negotiate this value by weighing the social-ecological conditions in the paddy meshwork, in which they and their paddy were embedded, against the interests of the disembedded networks of buyers and consumers, these considerations being reflected, for example, in their choices about which cultivars to sow in order to balance maximising returns with minimising risks.

As illustrated in this study, from the bodily engagement with and perception of rice (and paddy) as the basis of its enactment in the paddy meshwork, the dynamics in networks shifted to the engagement with and perception of representations of rice in the form of brand names, prices, or numbers expressing quantity or quality. Here perception was turned into representation, as the rice was turned from a 'thing' with relational qualities into an 'object' with fixed properties (see Knappett 2011, 45; Chapter 1). Consequently, in network contexts, my interlocutors did not primarily talk about the rice (or paddy) in terms of its physical qualities or its interaction with their bodies, but in terms of the price they received or paid for it, or the amount of kilograms of rice sold or bought. The rice was black-boxed (Latour 1987) in the sense that the properties through which it was known and discussed were abstract and disembodied and the rice was separated from its relations of production and history of enmeshment and from its role as an entity embodying and transmitting embodied qualities in the paddy meshwork.

Changes in the Relationship between Rice, Body, and Environment

As I have shown in this study, the processes of black-boxing, alienation, and abstraction in relation to rice and, more importantly, mineral fertilisers and other agro-chemical inputs influenced the ways in which my interlocutors perceived rice, their own bodies, and their environment.

[231] For Giddens, symbolic tokens are '… media of interchange which can be "passed around" without regard to the specific characteristics of individuals or groups that handle them at any particular juncture' (1990, 22).

Rice as Embodiment and Transmitter of Qualities

In Chapters 3 and 6, I have demonstrated that my interlocutors enacted rice as embodying and transmitting various embodied qualities. I have further shown that in the context of many interactions related to rice within the village, my interlocutors perceived, understood, and treated themselves, the rice they cultivated, consumed, and used for blessings, and other important actors and entities as parts of a paddy meshwork, in which all of them underwent similar auspicious processes of growth and development and were subjected to enmeshment with various substances.

As shown in Chapter 3, my interlocutors in Kaveripuram enacted the sun, the soil, Kaveri River, and paddy saplings, as well as certain animals, trees, and other plants as social actors, too, and enacted themselves as part of a system in which these actors and entities were engaged in lasting relationships with one another. My interlocutors pictured actors and entities in this system as needing to ingest substances with specific qualities. All beings also needed to be nourished and cared for by humans and/or other actors, such as Mother Earth (*taai buumi*) in order to flourish. As shown in Chapter 3, offering rice-based meals was an essential means of connecting with various social actors, such as deities, ancestors, or important relatives, in a respectful and affectionate manner and of asking for their continuous blessings, support, benevolence, or affection. As ritual offerings, my interlocutors used rice-based foods to feed, care for, and honour deities, ancestors, and other worshipped beings, while they also used rice-based ritual offerings to transfer auspicious blessings from the worshipped to the worshippers. They also used paddy and rice to transfer blessings from auspicious people, such as married women with children, to the beneficiaries of life-stage rituals. Thus, while paddy and rice were used to transmit auspicious blessings and important qualities between different actors in the meshwork, paddy and rice also socially connected my interlocutors with the social actors most important for pursuing the development of themselves and their families and households.

The way in which my interlocutors enacted rice as the embodiment and transmitter of desired and auspicious qualities and an essential means for expressing connection and respect can be said to be derived from the cyclical mode of rice economy practiced before the Green Revolution, when rice, indeed, circulated from the households into the fields and from the fields into the households, and when village residents consumed and ritually used the rice produced in the local fields, while the soil and the rice itself were also ‘fed’ with the products of the local social-ecological system or paddy meshwork. Even though this circular system was no longer in place, my interlocutors still related with rice in such ways in many contexts, as shown in Chapter 3, and also partly integrated the fertilisers, other agro-chemical inputs, and rice they now acquired from stores into these ways of perceiving, relating, and understanding, as was demonstrated in Chapters 5 and 6.

My interlocutors arguably perceived all elements of their social and ecological cosmos to be connected and to influence and mutually constitute one another (see Daniel 1984; Descola 2013, ch. 9.). This prominently includes the perceived influence of organic manure and mineral fertilisers, which were seen by my interlocutors as intimately affecting the constitution of the cultivated rice due to being its main source of 'essence' and strength. Similarly, my interlocutors stated that they themselves received most of their essence and strength from the rice they ate. As illustrated in Chapter 6, Sujatha (2002, 85-86) argues that for her interlocutors in a Tamil village, food (in the context of this study most prominently rice) constitutes the main link between their bodies and the environment. In her interlocutors perception, the qualities of the ingested food alter the bodily qualities of its consumers. The food, further, takes on qualities from the environment, for example, during cultivation, the substances used in cultivation, like mineral fertilisers and chemical pesticides, thus altering both the physical constitution of the food and of its consumers (Sujatha 2002, 85-96). Chapter 6 contains perhaps the most striking example of how my interlocutors perceived the physical qualities of rice to be transferred into and change the bodies of its consumers. My interlocutors frequently argued that their own bodies had undergone similar changes to those they observed in the rice they cultivated and consumed. As the rice was seen to have become soft, small and thin, and relatively tasteless, the bodies of its human consumers were said to have equally become softer, smaller, and weaker. Furthermore, just as the HYVs had a shorter cultivation duration and were seen as more susceptible to pests than the old varieties, many people argued that humans, too, used to live longer and healthier before, while they now died younger and were affected by manifold sicknesses. My interlocutors attributed these changes to the lack of essence in the mineral fertilisers they applied during cultivation – in their view causing the deprivation of vital essence and strength from the soil, the rice, and their own bodies – and to the infestation of the soil, the rice, and thus also their bodies with dangerous chemicals. This was especially so, since non-communicable diseases, such as type 2 diabetes, were on the rise and my interlocutors thus related the substances applied to their food to the diseases that increasingly afflicted them.

Alienated Rice and Inputs

As illustrated in Chapters 5 and 6, village residents generally had no access to, control over, or first-hand knowledge of the technologies and substances used to cultivate and process the rice they procured for their own consumption or the technologies and substances used in the production of the mineral fertilisers and other agro-chemical inputs they applied to their crops. I have argued that the lack of control over and knowledge about the relations of production of the fertilisers and other agro-chemical inputs used in cultivating rice and of the rice available in private shops and the ration shop constituted a source of insecurity and fear for some of my

interlocutors and affected their perception of the rice, their own bodies, and their social-ecological environment.

In Chapter 5, I showed how my interlocutors talked about the rice in the shops by referring mainly to abstract, disembodied properties – such as prices or brand or generic names – in order to distinguish and designate the different kinds of rice available in private shops. Due to the availability of highly polished and very fine varieties sold in private shops, most people associated higher prices with higher quality, understanding both of them as increasing with ever-decreasing grain size and width as well as with increasing softness and whiteness of the grains. While Daniel (1984, 62-63) cites one of his interlocutors as telling him that the rice from the soil of one's own village (*uur*) is the one most suited for a person, most of my interlocutors clearly preferred the taste and texture of shop rice over the rice from their village, arguing that the former was of higher quality and better taste. Indeed, as stated in Chapter 5, my interlocutors commonly associated the finest rice varieties with other states or other areas in Tamil Nadu. Several people stated that the very fine rice from the shops was the result of different ecological conditions and that the fine varieties were not compatible with the local soils, either arguing that the grains would grow larger in Kaveripuram's soils or that the plants would not develop enough grains when grown under local conditions. Many people had grown accustomed to – and preferred – consuming rice from the place of origin and relations of production of which they were separated, thereby relying on the expertise of, and technologies used by, farmers, rice mill operators, and rice distributors they did not know and therefore on knowledge, actors, substances, and processes 'disembedded' from their own life world (Giddens 1990, 21-29). However, as I argued in Chapter 5, rather than trusting these actors and processes implicitly, my interlocutors felt uneasy about and were suspicious of the intentions of the human actors involved and the technologies and substances used for processing the rice. Indeed, the very fact that the relevant human actors operated according to the logic of profit maximisation was a reason for my interlocutors to assume foul play, which they saw as resulting in improperly processed rice at best and dangerous, potentially poisonous rice at worst. They speculated and cited rumours about what was done to both shop and ration rice during its processing and storage and thus why it looked, felt, and tasted the way it did and what it could do to their bodies when ingested. Thus, while many of my interlocutors appreciated the fine rice from private shops and many also relied significantly on ration rice, a sense of unease and suspicion remained as a result of their alienation from the rice and its producers, since the rice they put into their bodies and the networks of actants responsible for its production constituted 'black boxes' (Latour 1987) for them. Indeed, in my interlocutors' explanations of why the shop and ration rice were the way they were, both the ration rice and the shop rice remained associated with the black-boxed networks in which they were processed and through which they were brought to the area. Accordingly, those village

residents who still parboiled their own paddy emphasised their control over the production process and their skills and care at parboiling their paddy, which they did for the good of their family and themselves (compare Preibisch et al. 2002).

While my interlocutors were suspicious of the alienated rice, they voiced much more concern about the black-boxed agro-chemicals that had come to replace organic manure and other organic applications in agriculture. Virtually all my interlocutors were convinced that the rice they consumed was detrimental to their bodily health due to the use of mineral fertilisers and other agro-chemicals and the lack of organic manure in modern cultivation (see Chapter 6). While most of them stated that they liked the finer, softer, and whiter grains with the less intensive taste that were now available in shops better than the thicker, harder, more colourful, and more flavoured grains previously cultivated, they also saw the new kind of rice as unhealthy, devoid of nutritious essence and strength, or even poisonous. While it can reasonably be assumed that most village residents' material standard of living had increased over the last decades (see Djurfeldt et al. 2008; Harriss et al. 2010, 56), most of my interlocutors painted a different picture when talking about their perception of the changes in the relationship between rice, their bodies, and their environment that had occurred with the disembedding and industrialisation of paddy cultivation since the 1960s. In Chapter 6, I have argued that my interlocutors perceived the vital connection between environment, rice, and humans as having been infiltrated by 'chemicals' that did not contain the vital organic essence (*cattu*) and strength needed by paddy plants and humans to become and remain strong and healthy and further negatively altered the constitution of the cultivated crops and the humans consuming them. In have shown how people described the agro-chemicals used in cultivation and the rice cultivated with them as 'artificial' or 'cultural' (*ceya̲r̲kai*), thereby treating them as the embodiments of a destructive modernity, while organic manure and food grains cultivated with the latter came to stand for an unspoiled 'nature' or 'tradition' (*iya̲r̲kai*; compare Kent 2013, 41). While my interlocutors thus perceived rice increasingly as negative and unhealthy, millets now increasingly came to be understood as the embodiment of a healthy, traditional diet and way of life (see Chera 2017, 2020).

Changes in the Enactment of Distinctions and Social Inequality

In this study, I showed that combining meshwork and network perspectives also helps to understand how my interlocutors experienced and enacted caste, gender, and class distinctions and inequalities in relation to rice and their own bodies within the paddy meshwork as well as in relation to various networks associated with the rice economy.

The Bodily Enactment of Distinctions in the Paddy Meshwork

Marriott (1976a) argues that in 'Indian thought,' different castes are perceived to differ in 'substance-code,' while Daniel (1984) also states that Tamil village residents perceive people of different castes and sexes as different in substance (compare also Lamb 2000). In Chapters 7 and 8, I have described several important instances in which my interlocutors enacted embodied caste, class, and gender distinctions, roles, and identities in relation to rice.

In Chapter 7, I have shown how village residents from all castes associated the consumption of raw rice with Brahmins and the consumption of parboiled rice with non-Brahmin and Dalit castes. My interlocutors described these two groups as physiologically different – due to the different kinds of activities in which they regularly engaged and due to their different metabolic or digestive strategies – and associated these differences with perceived differences in the qualities that raw and parboiled rice exhibited in the enmeshment with the human body. Non-Brahmins and Dalits, especially those who engaged in heavy physical work, stated that they preferred parboiled rice, because it was digested slower and thus kept them saturated longer. Many people also stated that their bodies were not suited to raw rice and reported adverse bodily effects after eating raw rice, such as having excessive gas and getting joint pain when working. Brahmins preferred raw rice, which, they stated, was digested quickly and was well-suited for intellectual work and work that did not involve much physical labour. Some of them also described parboiled rice as polluting, due to having been 'cooked' twice when it was consumed. Dalits and non-Brahmins thus enacted themselves as physically hard-working men and women, while Brahmins enacted themselves as cultured and spiritual workers of the mind. Here, my interlocutors enacted caste distinctions from a meshwork perspective by distinguishing different bodily constitutions, processes, and activities as compatible with different types of rice with different embodied qualities.

Furthermore, as I argue in Chapter 7, my interlocutors experienced their socio-economic position or 'class' in an embodied manner through preparing and consuming different kinds of rice. Through the excessive cleaning required for ration rice as well as its bad smell, dull and irregular colouring, hard texture, unappealing taste, and long cooking duration, those who regularly had to rely on ration rice physically experienced their own poverty. Through the easy preparation, the delicious smell, the shiny white colour, the light taste, the small, fine, and soft size and texture, and the short cooking duration of the shop rice, on the other hand, those who could afford regularly eating shop rice physically experienced their own wealth and success. Those village residents who still parboiled and consumed their own rice experienced their roles as, for instance, self-confident cultivators or health-conscious people through the physical efforts they put into parboiling the paddy and bringing it to local rice mills for husking as well as through the more intense smell and taste, firm texture, and uniform but not overly white colour of their rice (see Chapter 5).

Landowners, cultivators, and agricultural labourers also experienced and enacted caste and class distinctions through their bodily engagement in paddy agriculture. As illustrated in Chapter 8, for example, certain tasks in paddy agriculture were exclusively performed by Dalit agricultural labourers, thus distinguishing them from other labourers and cultivators (compare Kapadia 1995, 222; 242; 245; 253). Furthermore, the degree to which different people had to enter the muddy fields and became enmeshed with the mud also varied according to their caste and class status, the muddiest tasks being performed by male Dalit agricultural labourers. In relation to their degree of involvement with mud, different men wore different clothes to the fields and thus further distinguished themselves from one another through their clothing. Posture and position in the fields were another means of distinction. Wealthier, non-Brahmin landowners often stood on the bunds at the fringes of the fields in an upright posture, while the agricultural labourers were in the fields, bending down or kneeling. Among women, differences in clothing and appearance were not as stark, the main difference between most wealthier wives of landowners on the one hand and female agricultural labourers and some wives of owner-cultivators on the other hand being that the former were often physically absent from the fields and not involved in agriculture. Kapadia (1995, 209-232) describes the gendered division of labour in paddy agriculture among Pallar men and women and gender inequalities in the remuneration of agricultural wage labour between them. As I illustrated in Chapter 8, this gendered division of labour also existed in Kaveripuram, where the degree of inequality in remuneration was similar to that in Kapadia's study, which was conducted more than 20 years prior to this research.

In Chapter 3, I described how my interlocutors enacted and experienced fundamental roles and relationships in relation to certain embodied qualities and capacities perceived to be inherent, for example, in women or children, but also in rice. In various rituals, for instance, the desired embodied qualities of being care-giving, fertile, and attracting wealth into the household were emphasised in women, thereby implicitly reinforcing embodied gender distinctions between men and women in relation to the cultivation of the family and household and the continuity of the male lineage.

The Role of Networks and Abstraction in the Enactment of Socio-Economic Distinctions

Since Indian independence, village residents have increasingly become part of governmental networks through which the state extends various services and kinds of support to them, among which are, for example, the provision of schools and teachers, reservations in education and employment for SC, OBC, and BC members, the nutritious meal scheme for school children, the provision of highly subsidised, and since 2011 free, rice and other subsidised goods through the PDS, and more recently the MGNREGA. As shown in Chapters 2 and 8, the effects of these measures had contributed to the emancipation of Dalit and non-

Brahmin agricultural labourers and thus to altering the relations between them and members of the 'higher' castes and/or wealthier classes. In paddy agriculture, these relations had further been altered by the introduction of irrigation, ploughing, and harvesting technologies related to the industrialisation of agriculture as well as through the acquisition of lands and other means of production by Dalits and poorer non-Brahmins. Employment outside of agricultural and outside of the village had also become more relevant over recent decades. The ways in which caste and class differences were enacted in paddy agriculture were thus influenced by the agency of various new actants, such as tube wells or income from outside of agriculture, and by changes in who commanded over the old ones, such as agricultural land. Especially in the northern paddy fields, those who partook in agriculture were now dependent on one another in new ways and had new common interests, while power relations between them were less asymmetrical. Furthermore, since the younger generation was not present in agriculture, most people in agriculture belonged to similar age groups, being aged between 40 and 60. Many landowners, cultivators, and agricultural labourers of different castes thus, as I described in Chapter 8, practiced increasingly amicable and egalitarian behaviour towards one another in the context of agricultural activities and in places related to them, such as the fields and the tea shop, sitting next to one another, eating side by side, drinking from the same sets of tea cups, sharing water and other items, and addressing one another in (more) equal terms. Indeed, several people claimed that 'there are no castes in agriculture.' The earlier meshwork and substance-based way of relating, according to which members of different castes have certain embodied qualities that define their status, their tasks, the degree of respect they are afforded, and whether they can be touched or not, was thus challenged by a way of relating in which people who worked with or alongside one another and/or had common interests and/or occupied similar socio-economic positions would treat each other more equally, could show one another solidarity and friendship, and/or would engage in business with one another as parties independent of caste. An even stronger sense of solidarity and egalitarianism was present among the loadmen and officers employed at the TNC, which as a government institution was by design organised as a 'caste-free' space, similar to what Strümpell (2008) and Parry (1999a, 1999b) have shown in their ethnographic studies.

As I have demonstrated in Chapter 8, the MGNREGA created a kind of gender-neutral zone, as both men and women performed the same tasks and were paid the same wages when working for the scheme. However, this egalitarian approach did not lead to more egalitarian wages in paddy agriculture. To the contrary, the higher wages paid to men in paddy agriculture caused the latter to remain absent from the MGNREGA whenever there was agricultural work available for them and thus led to the MGNREGA working groups' often consisting mainly of women. I also described how women from a different village challenged the local gendered division of labour in Kaveripuram's paddy agriculture by both pulling out

and transplanting paddy saplings on the same day and undercutting the local workers by a significant amount of money. This was possible, because the women were 'disembedded' from local relations and thus did not have to adhere to the gendered division of labour as strictly as Kaveripuram's own women. The women, who offered their services to farmers in villages across the whole region, constituted another example of networks from the outside influencing the paddy meshwork, as they interfered with, and challenged, the embeddedness of the organisation of agricultural labour in local gender relations.

In Chapter 7, I showed that the introduction of disembedded shop rice and ration rice had opened up new possibilities of distinction for village residents, which made it easier for upwardly mobile village residents to express their newfound wealth and status. Here, again, it was the connection with governmental and capitalist networks from outside the village that allowed village residents to purchase any kind of rice and thereby distinguish themselves from others regardless of their locally perceived embodied qualities, such as their caste background, if they had the money to afford it. However, the availability of fine rice in the shops had also created expectations among guests to be served such fine rice as a sign of respect when they visited their relatives and thus became a burden to poorer families, who felt obligated to purchase expensive rice to serve their relatives and felt ashamed in case they had to offer cheaper rice varieties or ration rice.

In Chapters 7 and 8, the increasing separation of class from caste and the increasing importance of the former category in relation to enacting distinctions and identities among village residents, as observed and predicted, for example, by Béteille in relation to 'modernity' ([1965] 1996, 5-9; see Chapter 1) can be observed in this study as well. This does, of course, not mean that caste is less relevant in people's lives in general now but simply that in particular contexts, such as those described here, caste had become less defining. It should further be noted that the gendered division of labour and inequalities in remuneration between male and female agricultural labourers in paddy agriculture have not significantly changed since Kapadia's study more than 20 years ago.

Discussion and Outlook

This study is one of the many that illustrate the importance of considering ecology not as external to or separate from human social groups, but of recognising the latter as a part of the former and vice versa (see for instance Cronon 1996; Ingold 2011; Lansing 1987; Latour 2008; Moore 2016a; Sundberg 1998; Winthrop 2001). This is especially important in the current age, as we engage in the mass-scale destruction of our own, other people's, and other species' bodies and habitats and the consequences of these developments come to have a significant impact how people around the globe experience, understand, and interact with their life worlds (Moore 2016b). 'Actor-network,' 'enactment,' and 'meshwork' approaches are important

theoretical and methodological tools for this era because they locate our actions and statements in material processes and real-life situations and thus reaffirm the important realisation that understanding and relating with each other should involve considering our respective life worlds and social-ecological embeddedness, too. The 'actor-network,' 'enactment,' and 'meshwork' approaches as well as the 'social-ecological systems' approach (for instance Gunderson 2008; Holling 2001; Ingold 2011; Knappett 2011; Latour 2005; Law 1992; Law/Mol 2008; Redman et al. 2004; see Chapter 1) are also useful for communication across disciplinary boundaries between the empirical natural sciences, the empirical social sciences, and the empirical humanities and bringing together 'social,' 'cultural,' 'technological,' and 'ecological' analyses. Given the changing questions that anthropologists and scientists from other disciplines have to grapple with, inter-disciplinary work becomes more and more crucial to enhancing our understanding of the social-ecological processes currently occurring in many parts of the world, such as in this study. While not inter-disciplinary, this study is an attempt to understand my interlocutors' ways of relating with and perceiving rice, themselves, and other beings and things as embedded in their life world and as connected to the social, ecological, and technological changes that they are experiencing.

This study is further illustrative of how certain processes generally assembled under terms like 'modernity' or 'capitalism' can be visualised as unfolding in a concrete setting. It supports the important realisation that 'modernity,' 'capitalism,' or 'industrialism' are not historical states or total systems but can be visualised as unfolding in particular networks that involve particular ways of perceiving and relating (see Gardner 2012; Law 1992; Latour 2005, 2008; Tsing 2005, 2013, 2015). According to Taussig, an understanding of actors, entities, and substances as I have described here in terms of a meshwork view and embodied qualities is characteristic of 'pre-capitalist societies,' while what I have called the network view is a feature of a 'capitalist system.' Following Taussig, '[i]n pre-capitalist economies, the embodiment of the producer in the product is consciously acknowledged…' and '[p]ersons in precapitalist societies and the products they create and exchange are seen as intermeshed' (2010, 27-8; 36). Taussig further argues that in what he calls pre-capitalist economies there is 'a sense of organic unity between persons and their products' and humans and other entities and substances are perceived as existing and being defined through their connections, while in capitalist thought or 'commodity terms,' humans and other entities are also seen as interrelated, but each entity is perceived as possessing an individual 'identity and power' that originates in itself and exists independently of its interrelations with other entities (2010, 35-38). Dumont, similarly, distinguishes between 'traditional' and 'modern mentality.' He argues that in the latter '… a system is conceived as made up of objects each with its own essence, and it is in virtue of this essence, together with a definite law of interaction, that they act on one another' (1970, 40). In the former, on the other hand, '… the 'elements' in themselves of

which the system seems to be composed are disregarded, and only considered as the product of the network of relations…' (Dumont 1970, 40). However, as becomes evident throughout this study, the ways of enacting rice and other actors and entities I describe can neither be seen as purely 'pre-capitalist' or 'traditional' nor as purely 'capitalist' or 'modern.' Indeed, I have shown that certain ways of perceiving and relating became relevant and were applied by my interlocutors in certain situations but not necessarily in others. In this study, I have thus embraced the perspective of a social-ecological system and paddy meshwork that are increasingly subjected to the influence of 'modern' networks, the term 'modern' referring to the disembeddedness (Giddens 1990) of the networks and decidedly not expressing any kind of value judgement or hierarchisation towards different ways of life. What I describe is thus how village residents were forced to engage with long-distance networks and their 'modern' or 'network' ways of perceiving and relating and to employ these ways of perceiving and relating themselves in various contexts related to rice. This was particularly so in situations that were significantly influenced by the agency of the brokers, the inputs and services, the rules and regulations, or the assessment practices that were part of these networks.

It is further important to emphasise that my interlocutors' negative attitudes toward and concerns about the black-boxed agro-chemical inputs used in paddy cultivation were not simply a reaction to their alienation from them but were primarily related to their perceptions of actual changes in bodily health, in the qualities of the paddy and rice, and in the local flora and fauna, as described in Chapter 6. Having no direct knowledge of or control over the production of the inputs and witnessing the negative developments in human health and the health of the soils, animals, and plants around them, identifying the alienated substances involved in the cultivation of rice as responsible for these developments was the logical conclusion for my interlocutors. Their concerns thus have to be understood in the wider context of the negative ecological and physiological consequences of industrialised agriculture and food production as well as the uncertainty caused by the impenetrable and elusive networks that constitute the ever-more complex bureaucratic, capitalist, and industrial 'expert systems' (Giddens 1990, 27) to which an ever-increasing number of people around the world have been subjected over the last four centuries (see for instance Dewan 2019; Gardner 2012; A. Gupta 2012; Mintz 1985; Moore 2016b; Mosse 2005; Polanyi [1944] 2001; Preibisch et al. 2002; Scott 1998; 2009; Tsing 2005; 2013; 2015). Indeed, the residents of Kaveripuram are not alone with their concerns over the poisoning of their food and the degradation of their environment, but arguably rather symptomatic of a world-wide trend, related to the disembedding, industrialisation, and alienation of food production and supply chains as well as to changes in diet and health, such as the increasing consumption of sugary and processed foods and the rise in incidents of type 2 diabetes and other non-communicable, nutrition and lifestyle related diseases (see Popkin 1999). Yates-Doerr (2015), for example, describes a

similar concern among her female Guatemalan interlocutors, who were very apprehensive of vegetables produced for the market using 'synthetic pesticides.' She reports that the women '... spoke about 'chemicals of the dead' that had entered their food and cautioned me to avoid purchasing from women [...] from Almolonga, a regional center for export...' (2015, 32). Another similarity between Yates-Doerr's study and this thesis is the important role that chronic, non-communicable diseases like type 2 diabetes have started to play in people's perception of changes in their bodies. She states that women she interviewed at an obesity clinic

> '... found these illnesses particularly destabilizing because they had no historical referent. I heard from several patients that they could not turn to their elders to make sense of what was happening to their bodies, since these were modern illnesses – illnesses that left them waiting amid crowds of strangers seeking treatment from experts who were stranger still' (2015, 41).

According to Yates-Doerr, these 'modern' illnesses significantly shape people's understanding and perception of 'modernity' as directly affecting and changing their bodies (2015, 40-44). As illustrated in Chapter 6, similar perceptions among my interlocutors can be seen to have resulted in the now common designation of rice cultivated using mineral fertilisers and other agro-chemicals as 'cultural' or 'artificial' (*ceya<u>r</u>kai*) and as causing unfamiliar diseases.[232] Similarly, all across industrialised nations, many of those who can afford to do so have started purchasing organically produced products as well as products of certified 'regional' or otherwise specified provenance. Direct outlets, such as farmers' markets, where producers from the region directly sell their produce to consumers and thereby cut out the 'middlemen' and complicated supply chains, have become popular in the US and Western Europe over the last two decades. Research on farmers' markets frequently shows that consumers are willing to pay higher prices in return for food of known origin, which is often also produced organically and free from genetic modification and potential pesticide residues. Many consider this produce to be healthier, fresher, and tastier than vegetables, fruits, or meat sold at supermarkets. Furthermore, many customers emphasise that they feel they can trust the quality of the produce, since they get to know the producers (see Alonso/O'Neill 2011, 293-295; La Trobe 2001, 185-189).

As this study clearly shows, the 'disembedding' of social, ecological, and technological processes in rice production, distribution, and consumption in Kaveripuram through the involvement of 'modern' state and capitalist networks is a double-edged sword. On the one hand, inter-caste relationships in paddy agriculture have become more egalitarian and the relations of production in paddy agriculture have become less strongly determined by caste.

[232] As stated in Chapter 6, the research of Dewan (for example 2019) in Bangladesh also shows very similar ideas, narratives, and dynamics to those described for Kaveripuram in Chapter 6.

Land ownership, for example, has become more differentiated and distributed across various castes, while Dalits and landless agricultural labourers have emancipated themselves to a considerable degree. Indeed, the provision of ration rice, the MGNREGA, and other kinds of support by the state can be seen as having significantly improved the lives and socio-economic positions of poorer village residents (see Harriss et al. 2010, 56). As stated in Chapter 2, children and young people across castes are pursuing school, college, or university education and there is an atmosphere of upward social mobility, with many parents emphasising the importance of education for their children and many younger people leaving agriculture and the village behind.

However, my interlocutors also perceived the migration of the young generation into the towns and cities as threatening the continuity of agricultural production. Many farmers stated that they might not find a successor or that their children might sell their lands. Indeed, all across the Delta, one could see agricultural lands that had been sold to real-estate developers. Furthermore, the availability of shop rice has clearly created new social and economic pressures for poorer households, who now struggle to conform to the taste and quality expectations of their relatives. It has also created new avenues for experiencing the stigma and shame of poverty through the bodily engagement with ration rice.

While leading to increased agricultural productivity, the industrialisation of paddy agriculture has also led to farmers' increasing dependence on governmental and private brokers and networks, the engagement with whom requires constant capital investments. Furthermore, the overdependence on mineral fertilisers, pesticides, and tube well irrigation clearly has high ecological costs, especially the rapidly falling groundwater table is very concerning (see Aubriot 2013; Kaur Brar 1999). In addition, the alienated nature of the agro-chemicals and the shop and ration rice in combination with the spike in non-communicable diseases such as type-2 diabetes has lead to concerns among village residents about the negative health consequences and the ecological damage caused by the agro-chemicals, which are indicative of a deep uneasiness with contemporary agriculture and food production systems and have to be taken very seriously.

In light of these and other issues and concerns, understanding and conceptualising human societies and settlements as social-ecological systems that can be imagined and described, for example, as meshworks and networks, forces us to focus more on the interrelations between social, ecological, and technological processes and to take into account the impact that one kind of processes can have on the other and vice versa. Furthermore, it demonstrates the necessity of dialogue and cooperation between scientists and policy experts and their 'disembedded' perspectives on a social-ecological system and the actors within the system, on whose agency the health and continuity of the system depend, who are the most interested in saving it, and whose 'embedded' perspectives and concerns are extremely

important (see for instance Artur/Hilhorst 2012; Dove 2013, ch. 7; Fairhead/Leach 1995; Lansing 1987; Stensrud 2016). Hopefully, future studies and policies will increasingly acknowledge and integrate such multiple perspectives and concerns, which is vital in the context of the current and future environmental and social challenges faced by rural and urban communities all over the world.

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