DIRT MANAGEMENT: CLEANLINESS, HYGIENE, AND CHILDCARE IN THE UNITED STATES

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ABSTRACT OF THE DISSERTATION

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This dissertation studies the social construction of child hygiene in the United States. I ask how a hygienic child is possible? I explore the ideas of clean and dirty through the contexts of childcare and analyze how the relevant social actors—state governments, daycare teachers, and parents—participate in the social construction, distribution, reinforcement, and negotiation of the meanings of clean and dirty under the contested hygiene discourses created by the entrance of the hygiene hypothesis in a field long dominated by the germ theory. I use archival analysis, ethnography, and in-depth interviews to address the following research questions: What are hygiene discourses using to govern childcare providers and child-caring activities? What are hygiene codes passing down to preschool children in daycare centers? How do social positions shape parental understandings and practices of child hygiene?

First, I examine the hygiene regulations, standards, and guidelines that the New Jersey state government uses to govern daily childcare practices in daycare centers and preschools. At the level of biopower and governmentality, I show that the state hygiene regulations organize the daycare facilities in a hygienic way as well as shape the daily childcare schedule and the ways daycare teachers conduct childcare activities. In compliance with state hygiene requirements, childcare centers become the primary hygiene institutions that carry out hygiene discourses, and daycare teachers become disciplined hygiene workers who embody the hygiene standards and spend more than half of their time and energy on cleaning, sanitation, and disinfection.

Second, at the level of subject formation, I show the dual roles of daycare teachers as public health agents who distribute hygiene discourses and as the subjects who are constructed, formed, and produced through the discursive formation of knowledge under the state hygiene discourses and regulations. Daycare teachers act as key socialization agents who pass down the (state-regulated) hygiene norms to the young children and produce hygienic children in preschool classrooms. Children from different racial/ethnic and cultural backgrounds receive the same codes and messages of hygiene and cleanliness, including the timing, sequence, duration, and tempo of hand hygiene; the spatial deployment of clean and dirty; and the hygienic methodology behind of body usage, respiratory hygiene, wearing outdoor shoes in the classrooms, table manners, and not sharing food.

Third, I show that for American-born parents (mothers), different social positions, including socioeconomic status, race/ethnicity, and medical histories, lead to different understandings of the meanings of dirt and cleanliness, and push them to manage child

hygiene differently. Under the "intensive hygienic motherhood" discourse, mothers are expected to constantly clean, sanitize, and disinfect places, equipment, and objects children would use and touch; patiently and gently clean, wipe, and wash young children's bodies; and keep children away from exposures to dirt and germs. I conceptualize two ideal types, hygiene policer and immunity builder, each with their distinct management, attitudes, and understandings of cleanliness, dirt, germs, childhood, and health. I analyze the social structures behind the hygiene policers and immunity builders.

Last, I focus on the non-White immigrant parental (maternal) experiences. I examine how immigration status plays a role in shaping immigrant parental (maternal) understandings of child hygiene and their dirt management strategy. I show that the ways of dirt management immigrant parents choose to use are associated with their experiences of hygiene surveillance and identity work. Whether immigrant parents choose to be hygiene policers or immunity builders, they may be labeled by native-born Americans as "non-American," "foreigners," or "inadequate parents." I find that non-White immigrant parents (mothers) accept, reject, appropriate, and negotiate the American hygiene discourses to defend their parental (maternal) and ethnic identities as well as their daily negotiations of a sense of belonging and othering in the United States.

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Chapter 1

Introduction

Dealing with dirt is a task that parents and caregivers routinely encounter in infant-, toddler-, and preschooler-care.[1] This includes changing diapers, cleaning hands, sanitizing items children used, and deciding how often to bathe children, where children can crawl, and whether they can play with dirt or dig in the ground. Social norms, cultural expectations, and medical discourses shape what constitutes a dirty child or a clean one, and therefore how often parents wipe their children's faces and clean their own hands as well as how they manage their children's exposure to dirt.

This dissertation addresses the ways the ideas of cleanliness and dirt were invoked in discussions of infectious disease and its prevention, the immune system and its reactions, and cultural meanings within social relations in the context of childcare. Hygiene discourses produced by the medical sciences and professionals have shaped definitions of cleanliness and dirt[2] in childcare and personal hygiene in the United States since the late 19th century (Hoy 1995; Sivulka 2001; Tomes 1998). Hygiene discourses powerfully frame the social reality that state governments, public health officials, childcare providers, and parents themselves have perceived and understood (Berger 1966; Zerubavel 1993b), and guide both policy and practices. Medical discourses monopolize

[1] According to the American Academy of Pediatrics, infants refer to children in 0-1 year of age, toddlers are children 1-3 years old, and preschoolers are children 3-5 years old.

[2] Dirt has slightly different meanings in different cultures and countries. In the United Kingdom, it includes everything from earth to excrement; in the United States, it tends to refer more to earth, mud, dust, and grime—things that typically contain bacteria but not necessarily harmful bacteria. This dissertation focuses on the U.S. context and thus uses the meaning most prevalent there.

the pathologicalization of dirt and construction of cleanliness, creating dominant standards and regulations of hygiene and sanitation for both parental and nonparental childcare practices.

State governments are the primary makers of policy that governs the lives of children and childcare practices, and hygiene discourses have played a significant role in such policy. By the mid-20th century, most state governments had established hygiene regulations to control the quality and practices[3] of childcare facilities in regulations framed as protecting the health of children, daycare workers, and communities (Class 1980; Getis and Vinovskis 1992; Michel 1999; Phillips and Zigler 1987).

Medical discourses of cleanliness and dirt also guide parental childcare practices. Since the late 19th century, pediatricians have published numerous baby care books, guidelines, and manuals for parents to follow. For example, Dr. Spock's Baby and Child Care (Spock 1992), which was a bestseller from the 1940s to the 1990s, provided a pediatrician's advice that parents should "always wash [their] hands with soap and water after changing the diaper. This prevents the spread of harmful germs" (Spock 1992: 216). In the 21st century, Immunizations & Infectious Diseases: An Informed Parent's Guide, published by the American Academy of Pediatrics, suggests parents clean their houses to keep children healthy, especially the kitchen and bathrooms, where germs are most likely

[3] Sending infants, toddlers, or preschoolers to a childcare facility is relatively speaking a very recent social phenomenon. For a long time in American society, young children were cared for at home by their mothers. Only the poor or the immigrant children needed childcare in the early 20th century (Getis and Vinovskis 1992). It is not until World War II, with the social and economic changes that accompanied it, that non-parental childcare become a more common and widely accepted way of raising young children in American society (Class 1980).

to grow (Fisher 2006). Medical experts and hygiene discourses have further refined what constitutes a good U.S. mother and expectations concerning childcare practices (Ehrenreich and English 2005; Litt 2000). Good mothers are expected to use scientific knowledge and make intensive efforts to protect their children from exposure to various types of dirt, including viruses, bacteria, toxins, and chemicals (Apple 2006; Horton and Barker 2009; Mackendrick 2014).

Under dominant hygiene discourses, caregivers who are unable to practice hygienic childcare activities are considered neglectful, inappropriate, or abusive (Bushman and Bushman 1988; Molina 2006; New Jersey State Department of Children and Families 2017; Swift 1995). Employers such as Ford and Kohler may offer hygiene programs, and public health institutions may intervene to protect children's health (Alkon et al. 2009; Hoy 1995; McClymer 1991; Sivulka 2001). Cleaning and personal-care product industries have also advanced a narrative that links cleanliness with good health (Tomes 1998). Since the 20th century, the marketing of soap, detergent, toothpaste, mouthwash, laundry machines, and dishwashers have created the idea that cleaning products are "friends of health" (Hoy 1995). Advertisers of cleaning products often target mothers of young children, making the case that using cleaning products such as hand soap, hand sanitizers, bleach, wipes, disinfectants, and detergents will ensure a healthier child (Sivulka 2001).

However, the rise of the "hygiene hypothesis" beginning in 1989 has posed a challenge to the dominant hygiene norms and ideas based on germ theory (Strachan 1989). Experts including immunologists, microbiologists, and pediatricians have begun to

question the connection between cleanliness and health, advancing a new child-rearing principle of "embracing dirt." These experts suggest childcare providers and parents let children get dirty and play in the mud. They argue that playing outdoors and getting dirty promotes physical and cognitive development, trains immune systems, and relieves stress (Clements 2004; Gilbert, Knight, and Blakeslee 2017; Ruebush 2009). Indeed, studies have shown that playing outside, embracing dirt, and early exposure to farm animals and various kinds of plants help children develop a stronger immune system, thereby lowering their chances of developing allergies and asthma (Ruebush 2009; Strachan 1989). Allowing children to touch dirt, play with dirt, and/or eat dirt help children build a more diverse microbiota in their gut and lead to better health outcomes (Gilbert, Knight, and Blakeslee 2017). Research links embracing dirt to a lower likelihood of irritable bowel syndrome (Konstantinov and Peppelenbosch 2013), depression (Zheng et al. 2016), autism (Kang et al. 2013), and nonalcoholic fatty liver disease and obesity (Henao-Mejia et al. 2012). Yet there are clear benefits to handwashing (Warren-Gash, Fragaszy, and Hayward 2013; Zomer et al. 2015). This juxtaposition and the contestations over medical and scientific interpretations of dirt and cleanliness in relation to health pose a dilemma for modern parents and childcare providers: whether to let young children get dirty. The reversal in dominant discourse about dirt and the complications in applying conflicting advice raise a number of questions for sociologists, which this dissertation will address.

Research Questions

This project addresses the following sociological questions about the interactions of the contested medical discourses of cleanliness and dirt in childcare with broader social structures and social orders.

First, at the level of biopower and governmentality, what kinds of medical discourses about cleanliness and dirt in childcare does the state support, distribute, and use? What kinds of regulations, standards, and guidelines about cleanliness and dirt do state governments use to govern "life" and daily childcare practices in daycare centers and preschools? What kinds of surveillance and intervention are conducted regarding cleanliness and dirt in these spaces?

Second, at the level of subject,[4] how are the hygienic subjects (daycare workers, parents, and children) formed, produced, and activated under the dominant hygiene discourses in childcare?

Third, what are the experiences of caregivers under contemporary hygiene discourses? What are the lived experiences of daycare workers[5] under hygiene regulations and discourses? How do parents of different social positions (e.g.,

[4] The Foucauldian understanding of the subject suggests that subjects are neither free from structures in which they are embedded nor passive dolls without any agency. Different discourses produce different kinds of subjects while subjects are actively participating. See Gordon 1999 for further discussion

[5] This dissertation's attention to non-parental childcare providers reflects an understanding that the U.S. maternal employment rate means that many children receive such care. For example, in 2012, non-parental caregivers took care of about 44% infants, 53% toddlers, and 67% preschoolers in the United States (National Survey of Early Care and Education Project Team 2016).

socioeconomic class, race/ethnicity, and immigrant status/nativity) understand and respond in their daily childcare practices to the contested ideas of cleanliness and dirt currently present in discourse? How does the cultural construction of cleanliness intertwine with the pathological construction of dirt?

Changing Hygiene Discourses, Hygiene Governmentality, and Formation of Hygienic Subjects

A society's way of conceptualizing and dealing with dirt reflects how its dominant social groups, experts, and knowledge systems classify the environment, construct the social order, and maintain boundaries around the self and the other collectively (Douglas 1966). As anthropologist Mary Douglas argued, "There is no such thing as absolute dirt: it exists in the eye of the beholder. … Where there is dirt there is a system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements" (1966: 2, 35). Dirt is always related to a systematic classification. The concepts of dirt and cleanliness vary across time and society, and they are situated in certain historical, social, economic, religious, scientific, and medical contexts. Thus, understanding hygiene discourses includes asking who defines what counts as dirt? Who wants to control whom in their management of dirt, and why? Whose interpretation of dirt is accepted and normalized?

Through genealogical traces of different knowledge/power regimes, Michel Foucault argues, discourses are statements, a set of "discursive formation[s]" (Foucault 1972: 107)

about “what was said” and “what was enunciated” (Foucault 1971: 10). Discourses are “an ensemble of regulated practices” (Foucault 1991b: 69) that consist of the codes to govern individuals based on the production of the established knowledge in which an individual’s body and soul are ordered, disciplined, and produced (Foucault 1991c). Discourses are not the scientific discoveries nor the concept developments, but the discursive formations supported, distributed, and reinforced by intuitions, administrations, and power deployments (Foucault 1990). The state is the main social actor who uses discourses to govern the population. Discourses are tools of governmentality, the assemblage of “institutions, procedures, analyses and reflections, calculations, and tactics that allow the exercise of this very specific, albeit very complex, power that has the population as its target, political economy as its essential technical instrument” (Foucault 2007: 108). Through the effects and operations of discourse, the subjects emerge, constitute, and form (Bevir 1999; Foucault 1990).

In line with Foucault’s definition, in this study, hygiene discourses refer to the scientific statements that relate to ideas of cleanliness, dirt, and health, and are produced by scientific institutions, distributed by public health administrations, and mediated through techniques of public health deployments. The state uses hygiene discourses to govern the population, organize social spaces, establish procedures, and control individuals’ behaviors, bodies, and souls through institutionalization, legislation, education, and normalization. The institutionalization of hygiene discourses created a discursive system that formed the subjection of hygiene discourses. Hygienic subjects are constructed, formed, and produced through the discursive formation of knowledge,

practices, and techniques of hygiene deployment institutionalized by the state and self-regulated by individuals.

Scientific knowledge and medical discourses are not static but dynamic; they are always in a competing process (Callon 1995; Kuhn and Hawkins 1963). Medical discourses identify different kinds of "dirt" that cause diseases, provide different ways to prevent sickness, and offer suggestions to stay healthy (Karamanou et al. 2012; Martin 1994; Richmond 1954; Tomes and Warner 1997). Meanwhile, different medical understandings of dirt and disease have led to different hygiene discourses, including conceptualizations of dirt, perceptions of cleanliness, and strategies to fight diseases and achieve health (Corbin 1986; Rosen 1993; Tomes 1998; Vigarello 1988). These different hygiene discourses fundamentally shape key social actors' understandings about germs, cleanliness, and dirt on health, and guide their practices on hygiene and health in the United States.

The Middle Ages to the Mid-19th Century: The Miasmas Theory

From the Middle Ages to the mid-19th century, medical practitioners and theorists attributed disease to miasmas: small air particles with a foul smell, including human waste, the accumulation of dust, filthy water, rotten material, and foul air (Halliday 2001). Dirt, therefore, was defined as any matter that had a stench (Karamanou et al. 2012).

The miasmas theory thus affected governments' intervention and control in public health, which began with the Enlightenment. The population had become a target of public health surveillance, and general agreement arose that the state had a responsibility to improve the health of the population through public health administrations, legislations, and institutions (Lupton 1995: 21-26). To prevent contamination by foul miasmas, "bad air," the state government focused on legislating the hygiene infrastructure, including drainage, sewage, and waste disposal systems (Awofeso 2004), while cities utilized different drainage methods: circulating the airflow, building sewage systems, and evacuating rubbish, all in order to deodorize to promote health (Bashford 1998; Corbin 1986; Vigarello 1988). Based on the geographical model of disease, the state government employed techniques such as managing the border and interactions between those considered clean and those seen as dirty, the healthy and the unhealthy, and the contagious and the noncontagious, sometimes through militaristic means (Markel 2005; Shah 2001). Thus, public health became a pretext to limit individuals' freedom and mobility. Techniques to were based on the classical sovereign power: top-down, coercive, and repressive power to control individuals' body and lives (Armstrong 1993; Classen, Howes, and Synnott 1994).

Social pressure also governed individuals, as removing visible dirt was viewed as a matter of decency, civility, and social etiquette from the Middle Ages up to the 17th century (Elias and Jephcott 1982; Parayre 2017). Handwashing was seen as a way to communicate propriety and honesty in the 16th century, although it came to be associated with hygiene after that (Parayre 2017). However, body parts that were covered by clothes

could remain dirty without violating any social norm (Vigarello 1988). Changing linen undergarments and one's shirt was more important than washing with water (Classen, Howes, and Synnott 1994). Indeed, in the 17th century, doctors warned that warm water could open their pores, making the skin vulnerable to foul miasmas. Leaving sweat to dry on the skin was believed to be a form of protection from foul miasmas and penetration of the skin by bad air (Ashenburg 2007). Therefore, people practiced "dry washing," such as rubbing their hands and face with a towel, wiping their eyes and ears with linen, and using perfume to mask bad body odor (Vigarello 1988). In the 18th century, medical experts recommended "purifying" the air to destroy the mephitic, foul-smelling air and thus quell miasmas. Elites viewed perfume as a way to protect themselves from the disease risk of bad air and to "purify" the air around them (Corbin 1986). To bathe at all was a symbol of wealth, and elites used baths to calm agitated nerves, firm up the muscles, and invigorate, rather than achieve cleanliness. Bathrooms were places for refreshment and relaxation, not for cleaning (Vigarello 1988). Even elites did not regularly bathe with water in either England or America until the 18th century. Wealthy men washed their hands and faces daily, but not the rest of their bodies (Bushman and Bushman 1988). By the end of the 18th century, bathing was more frequent, and seen as a way to be more "presentable" and "genteel," but not a means of maintaining health, and nonelites did not have the opportunity to bathe.

The 19th Century to the 20th Century: The Rise of Germ Theory

In the 19th century, germ theory overtook miasma theory, leading to a new conceptualization of dirt, perceptions of cleanliness, and discourses of hygiene as people recognized the role of microscopic pathogens in illness (Karamanou et al. 2012; Tomes 1997). People came to see dirt as the invisible germs that were capable of causing diseases and "breaking down all bodily barriers," while cleanliness was redefined as "free from invisible bacteria, protozoa, and viruses," and hygiene practices were efforts to kill germs or to reduce the spread of germs (Vigarello 1988: 207). People understood germ awareness and hygiene consciousness as the way to stay healthy. The sanitation model overtook the geographical model in public health efforts to fighting disease, and state governments began to focus their attention on disinfection of food, milk, and water supplies (Awofeso 2004).

With the new conceptualization of dirt and cleanliness, new hygiene attention and perception emerged. Previously neglected parts of private households, including "damp cellars, dusty drapes and carpets, sinks, drains, and toilets" were viewed as incubators of microbes and diseases (Magner 2009: 46). Previously unnoticed objects were highlighted due to the hygienic concerns of potential disease transmission. For example, dust and insects were viewed as carrier of diseases, "Any object touched by another person, whether it be paper money, library books, or common drinking cups" were agents of infections; therefore, individuals should avoid or disinfect them (Tomes 2000: 192).

Public health experts focused on domestic hygiene and cleanliness. The private households were targets for the sanitary movement (Tomes 1990). Home economics experts instructed housewives and mothers in hygiene discourses, translating the germ theory of disease into daily housework and promoting a new standard of cleanliness (Ehrenreich and English 2005; Tomes 1997). Women, especially wives and mothers, were expected to take responsibility for working as "sanitary reformers," to be the primary drivers for achieving household cleanliness (Richardson 1880), securing the health of family members (Brown 2009), and fighting a war against bacteria to prevent "house diseases" (Ehrenreich and English 2005).

Meanwhile, previously ignored body parts, including fingernails, skin covered by the clothes, hair, body, and teeth, gained attention as potential breeding places for germs. With the disciplinary way of public health governance, the targets of hygiene discourses shifted from the (public and domestic) environment to the individual's body and personal habits (Lupton 1995). Individuals and personal hygiene became the targets of public health surveillance (Armstrong 1993). The state began integrating hygiene discourses into the primary and secondary education. Hygiene discourses worked as a Foucauldian power mechanism—decentred, diffusive, and productive—to discipline and reform individuals' bodies and souls (Sears 1992). The hygienic subjects emerged under hygiene discourses that suggested modes of behaviors, detailed and nuanced perceptions on dirt and cleanliness, and paths to achieve desirable health. By the mid-20th century, a culture of cleanliness was entrenched in the United States (Hoy 1995).

Americans were taught to use "antisepticonsciousness" to scrutinize their body parts, everyday objects, routine activities, and domestic environments in their daily lives (Tomes 1998: 157-82). Public health surveillance began to address men as well, but it increasingly focused on the poor, the rural, minorities, working-class workers, school-aged children, and immigrants. All of these groups were seen as dirty and were targeted by public health officials for hygiene inspections and training (Hoy 1995; Loizides 2007; Lupton 1995; Mackenzie 1906; Molina 2006; Sivulka 2001). Cleanliness became a symbol for being an American: immigration and housing programs instructed immigrants to brush their teeth, to wash their bodies and clothes daily, and to live in an "American way," using soap and water to keep clothes, households, and bodies clean (Barrera 2016; Hoy 1995; Sivulka 2001). Sanitation and domestic scientists equated cleanliness with assimilation to American society (Barrera 2016; Ehrenreich and English 2005; Sivulka 2001), as did public health officials (Lemke 2002; Lupton 1995; Rosen 1993; Sears 1992). These groups instilled corporal standards of hygiene and cleanliness in immigrants via mandatory hygiene education, and personal hygiene became a symbol of civilization, morality, and patriotism (Barrera 2016; Hoy 1995; Lupton 1995; Sivulka 2001).

Since the late 20th century, knowledge and techniques of personal hygiene have been a tool of health promotion and self-management. Adopting the ideology of individualized responsibility for personal health, Americans began to adopt, internalize, and embody personal hygiene and to practice it voluntarily by "self-regulating" and "self-monitoring" to promote personal and public health rather than being forced by the state (Armstrong 1993; Sears 1992). Individuals actively participated in inspecting, complying with, and

reinforcing the norms of hygiene by self-surveillance and bodily management (Lupton 1995: 76). Public health became a personal responsibility instead of a coercive policy to every member of American society.

The 21st Century: The Epistemic and Pathological Challenges from the Hygiene Hypothesis

Germ theory, which has monopolized the meaning, scales, and functions of dirt and cleanliness on health for centuries, has encountered challenges in the late 20th century. In this session, I discuss the emergence of alternate interpretations in the 21st century.

In 1989, Strachan (1989) proposed the "hygiene hypothesis," which argued that a lack of contact with germs causes illness. He observed that there is a negative association between cleanliness and health in developed countries, in that a higher standard of cleanliness, sanitation, and personal hygiene is associated with a higher likelihood of getting hay fever. Children who have more siblings and who live in a rural area tend to have lower standards of cleanliness, sanitation, and poorer personal hygiene practices. They also have a lower likelihood of getting hay fever than urban children in smaller families (Fall et al. 2015). Research also links cleanliness more directly to allergic, atopic, and autoimmune disease (Fujimura et al. 2014; Strachan 1989; Von Mutius 2007).

According to the "hygiene hypothesis," dirt and germs are the "tutors" of the human immune system (Gilbert, Knight, and Blakeslee 2017). As microbiologist Ruebush wrote, through interactions with dirt children's immune systems learn "to distinguish between

genuine threats and false alarms" (2009: 72). Thus, instead of killing or avoiding germs and dirt, human beings should embrace them, especially for children, who will be healthier the higher the number of germs and dirty children they come into contact with (Stein et al. 2016). Dirt and germs are not our enemies, but "normal" and even beneficial to us. Early microbial exposures serve a crucial role in the maturation of children's immune response and help children develop tolerance of environmental components, such as pollen, mites, dogs, or farm animals (Braun-Fahrländer et al. 2002; Fall et al. 2015; Rook 2009). Contrary to the germ theory, the hygiene hypothesis suggests hygiene is the cause of the disease, because higher standards of sanitation, cleanliness, and personal hygiene practices remove all kinds of dirt and kill all types of germs. The hygiene hypothesis argues that children's early infections lessen their likelihood of allergic illnesses in the future. Research linked the number of infections a young child experienced with a lower likelihood of atopy, allergic rhinitis, and asthma (Schaub, Lauener, and von Mutius 2006).

Whereas the public's understanding of dirt and germs as enemies to human health had been relatively fixed based on germ theory, the hygiene hypothesis loosened that understanding for the first time. Germs and dirt are no longer considered as strictly threats to a child's health. Parents are expected to allow their children the chance to interact with germs and dirt. Cleanliness and hygiene are threats to a child's health, and infection-disease experts cautioned parents against being "too clean" (Gilbert, Knight, and Blakeslee 2017; Levy 1998). In this context experts raised another concern: that attempts to eliminate bacteria would only breed bacteria resistant to antibacterials and antibiotics (Levi 1998: 48).

Microbiologists began to call for lowering standards of household cleanliness as well as encouraging kids to get dirty. For example, Gilbert, Knight, and Blakeslee wrote that parents should allow their kids to play in dirt, even to eat it, explaining: "Soil is a microbial heaven, with more than a billion bacterial cells per gram, and many fungi and viruses as well. … It is a great source and a great opportunity to expose children to a complex microbial community that will help train their immune system" (2017: 157). Similarly, Ruebush (2009) suggests encouraging children to embrace dirt and suggests that parents deliberately increase their dirt exposures when children are young. She described her own measures in this regard thus (Ruebush 2009: 41-43):

> One of my fondest memories of my children is of a day when they were small. As we built a barn for our house, my son lay on a blanket in the back pasture, in close range. When I turn around to check on them. I saw my son had crawled over to a dried pile of horse manure and was chewing on it with relish, as if it were a Big Mac. This was the happiest child in the state of Montana. Who are we to try to thwart such a strong biologic urge? I am certainly not advocating feeding your children a diet of horse manure or other unsavory materials, but I am proposing that we examine why it is that young children are so compelled to put things in their mouths. Certainly, much of it has to do with teething, but the other much more critical role of this behavior is in the training of a young, naive immune system. … Is it possible that our current obsession with cleanliness is actually counterproductive to health? I am quite certain that it is!

Eating leaves, dirt, and even horse manure should be accepted as a way to train children's immune systems. Gilbert, Knight, and Blakeslee also encouraged parents to let their children eat poop (2017: 165):

> The delight of having your child touch poop, or even eat it, is familiar to many parents. How much you should panic depends on whose poop it is. If it's your child's own poop, or a family member's, the good news is that they are probably already exposed to those microbes. So, it's gross, but in the grand scheme of things it doesn't matter that much. If it's outside the family, you still don't have to worry as long as no pathogens are present. Fact is, the world is covered in a fine patina of

> feces, spread from people's hands or degraded and spread into the air. In the end we are all made from molecules that were once poop, maybe a dinosaur's poop.

For hygiene hypothesis believers, the more interactions between microorganisms and a child, the more a child's health will benefit from a well-trained immune system. Parents should either ignore digging in the ground, playing with dirt, and eating dirt or actively encourage it, all behaviors that were considered unhygienic and unhealthful under the germ theory.

The hygiene hypothesis has revolutionized scholarship on dirt and germs over three decades, but we know little about how the social actors who once enforced germ theory—the state government, public officials, daycare workers, and parents—understand the new discourse. There is little research on how the new hygiene discourses affect strategies on dirt management and cleaning practices for the care of young children in the 21st century. This dissertation addresses that gap.

Cleanliness, Social Order, and Normality

Hygiene discourses not only relate to ideas of health but also notions of social order. In our everyday lives, cleanliness reflects a specific form of social order, a principle to organize daily life, and a symbol in social relations (Martens 2007; Wolkowitz 2007). As Mary Douglas (1966: 2-3) wrote well before the rise of the hygiene hypothesis: "Dirt is essentially disorder. … Dirt offends against order. Eliminating it is not a negative movement, but a positive effort to organize the environment." Cleanliness is related to

dominant social norms, social order, and normality while dirt is associated with violation, abnormality, and aversion. Eliminating dirt is a way of reorganizing the social order, maintaining the boundaries around "us" and "the other," and reenforcing current social norms.

Based on different hygiene discourses and different conceptions of dirt, perceptions of the threats to the social order are varied. In the ages of miasmas, individuals' aversion to bad smells reflected the taken-for-granted normality. A foul smell was a threat to the social order, and successfully eliminating it represented the victory of hygiene and the reestablishment of social norms and values. Normality, morality, and social order are protected through the purification of the air and production of pleasant fragrance (Corbin 1986). Under the germ theory, germs were the enemy of public health. Poor people, immigrants, and other disadvantaged populations were labeled as "unclean," their bodies were viewed as germ spreaders, and their homes were germ factories that incubated the diseases; therefore, they were depicted as top threats to the health of the nation and the future of the country (Markel and Stern 1999; Markel and Stern 2002).

Therefore, ideas of clean and dirty have served as a surveillance tool used by public health apparatus, and a symbolic and moral tool used by society and individuals to maintain specific social order, to construct the hegemonic normality, to categorize people, and to correct nonconformance. In telling the story of chasing dirt in American lives, scholars argue that practices to achieve cleanliness have been racialized, classed, and gendered (Brown 2009; Ehrenreich and English 2005; Horton and Barker 2009; Hoy 1995; Tomes 1997). Cleanliness draws a line between the "moral, honest, and decen[t]"

and the "immoral, [who were] lack[ing in] humanity, and indecen[t]" (Parayre 2017), the "abnormal" and the "normal" (Armstrong 1983), "the middle-class and civilized" and "the poor and uncivilized" (Brown 2009), and the "Americans" and the "non-Americans" (Bateman-House and Fairchild 2008; Loizides 2007; Molina 2006; Shah 2001). Individuals are expected to conform to cleanliness norms. Those who do not are labeled bad, inferior, and shameful, and in need of correction (Foucault 1995; Horton and Barker 2009; Ong 1995). Immigrant women responded by promoting their identity as good mothers and deserving immigrants by keeping their bodies, children, and households clean (Hoy 1995).

Children, Childcare Practices, and the Responsibility of Keeping Children Clean

The meanings of a clean child could be traced back to the 16th century in Western societies. Parayre (2017) finds that from the 16th to the 18th century, children with clean hands were viewed as "honorable, honest, civil, and well-born." Since the mid-19th century, a clean child has been associated with the idea that the parent is a responsible citizen who fulfills the collective responsibility of improving public health. A clean child is not only a representation of moral superiority but also medically healthier and socially more normal and better fitted to the social order. Concerns about dirt and disease changed the meaning of household cleaning from a routine, meaningless job to meaningful hygiene work that would promote health (Prudden 1890; Tomes 1997). Cleaning became a moral responsibility for women, especially for mothers, and neglect of housecleaning is

considered a violation of good motherhood and potentially a form of child abuse (Ehrenreich and English 2005).

The childcare practices related to a child's cleanliness, whether in parental care or nonparental care, fundamentally intersected with gender. In homes since the second half of the 17th century, mothers have been culturally expected to be the primary and natural caregivers of children and took the responsibility of cleaning children and socializing them on cleanliness (Getis and Vinovskis 1992). Feminism in the 20th century did not fundamentally change the gender divide in this respect (Ehrenreich and English 2005; Hoy 1995; McClymer 1991). At the same time, with respect to disadvantaged children, mothers were considered inadequate for the task. The understanding since the 19th century that cleanliness is an instrument of civilization, Americanization, and fitness for the middle class (McClymer 1991; Molina 2006; Rogaski 2004; Tomes 1997) drove programs that taught disadvantaged children to brush their teeth, to wash their bodies and clothes daily, and to live in an "American way" (McClymer 1991; Stout 2012). "Friendly visitors" from charity organizations or public health departments would visit poor and immigrant homes, offering instruction to mothers to improve their living environments and "treatments," which also included lessons on laundering and ironing clothing to instill the American standard of housekeeping (Barrera 2016; Ehrenreich and English 2005).

The prioritization of cleanliness in nonparental childcare can be traced to institutional care of orphans and children from disadvantaged families in the early 19th century; indeed, parents' perceived inability to socialize children with the proper norms of

cleanliness was a justification for providing such care (Phillips and Zigler 1987; Stout 2012). Educators were charged with teaching disadvantaged children lessons of hygiene and cleanliness. Childcare facilities of the early to the late 20th century were positioned as the first institutions of education that socialized children in hygiene norms (Leroy 2017; Parayre 2017). However, the pedagogical ideas about socializing children according to the proper hygiene norms are not universally believed. In France, for example, Ghislain Leroy observed that many daycare teachers tend to distance themselves from the tasks involved in cleaning children and inspecting them for cleanliness. French daycare teachers expect children to clean themselves by making sure hygiene products are available to children, for example, by asking parents to bring boxes of tissues and wipes to school for their children to use. French children have been expected to be responsible for their own cleanliness and hygiene since the late 20th century (Leroy 2017).

Research has not delved into how the hygiene hypothesis may have disrupted childcare practices as awareness of it disseminated and evidence in its favor has mounted. Like studies on the influence of germ theory, this study explores how parents and childcare providers understand the meaning of a clean child, their practices used to keep a child clean, and their hygiene socialization in the 21st century in the United States.

The Understudied Contested Hygiene Discourses on Children and Childcare Practices

This dissertation considers how multiple social actors participate in the social construction, distribution, reinforcement, and negotiation of meanings of cleanliness, dirt, and health under the contested hygiene discourses created by the entrance of the hygiene hypothesis in a field long dominated by germ theory. What research exists on this topic has addressed how the state uses hygiene discourses to govern and discipline adults and their lives. But preschool-aged children are the targets of advice stemming from the hygiene hypothesis, because they are more vulnerable to germs and disease than most adults, they exist in a critical window for hygiene socialization, and good personal hygiene habits practiced by young children are the most effective intervention for disease control (Warren-Gash, Fragaszy, and Hayward 2013). In addition to addressing the gap in our knowledge of childcare practices, this dissertation illuminates the dual roles of daycare teachers as public health agents who distribute hygiene discourses and as the subjects who are constructed, formed, and produced through the discursive formation of knowledge under the state hygiene discourses and regulations.. Most studies on public health, hygiene, and health have treated institutions and people who execute the hygiene discourses as agents who promote public health and are viewed as superior and civilized and who share the gospel of hygiene to the backward and uncivilized populations who are the subjects of hygiene discourses. Yet the same individuals who promote hygiene and public health are also the subjects of hygiene discourses.

In this dissertation, I examine how the New Jersey state government uses hygiene discourses to govern early care and education (ECE); discipline childcare workers, parents, and children; and shape daily childcare practices and children's experiences in ECE facilities and private homes. Switching the research focus from adults to children and previously invisible institutions and individuals, including daycare centers, daycare workers, and parents, makes clear that they are key places and actors that participate in the social construction, distribution, reinforcement, and negotiation of hygiene discourses and public health.

Chapter 2 analyzes how government governs the health of children and childcare providers and constructs the normality of hygiene practices in childcare facilities through detailed hygiene regulations. Using ethnographic observations in two daycare centers, I analyze how daycare workers are the subjects of the hygiene discourses and are disciplined hygienically. Chapter 3 investigates daycare workers as the primary socialization agents who socialize children with the American hygiene norms and standards. I argue that children are embodying the American hygienic norms bodily through their daily interactions with teachers' hygiene socialization. Chapters 4 and 5 analyze how medical discourses on cleanliness and dirt organize modern American children's lives; shape infant-, toddler-, and preschooler-care practices; and interact with parental social positions in the American social structure (socioeconomic, racial/ethnic, gender, and immigration background) based on in-depth parental interviews. In chapters 4 and 5 I also demonstrate how pathological constructions of dirt and germs intertwine

with the demarcations of social class, race/ethnicity, geographical locations, and immigration status.

Methods and Data

Archival Analysis

State archives are essential sources to examine how a state government regulates and governs a population's hygiene and health in the contexts of ECE. In the United States, state governments are the primary legal authority to legislate for and establish rules about hygiene and health to secure the quality of childcare practices and children's health. To analyze how a state government constructs a social order and cleanliness and dirt system, I collect New Jersey state governments' regulations, standards, and guidelines related to dirt, cleanliness, and child health over the past four decades. Specifically, I analyze the current hygiene regulations on ECE facilities and examine the official hygiene norms, the official expectations of "good" childcare providers and practices, and which inspections and interventions are employed.

Ethnography and Field Sites

Daycare classrooms[6] are important sites to explore ideas of hygiene in early care and education. At the institutional level, written rules of cleanliness and hygiene are carried out in daily childcare practices in these spaces. State regulations impose standards of sanitation and disinfection. Teachers and aides who spend more than nine hours a day with children in these facilities are responsible for following the rules and keeping them clean. At the level of social interaction, it is the site where interactions about hygiene and cleanliness occur: teachers provide ideas of cleanliness and hygiene that children adopt. At the individual level, hygiene and cleanliness are embodied concepts. Practices of personal hygiene and cleanliness become more "invisible and natural" in later years of life in a person's body; therefore, preschool is the space where the not-yet-disciplined-body is still visible at the beginning stage of socialization. Firsthand interactions and early hygiene socialization in daycare classrooms thus can illuminate practices a good deal.

I conducted ethnographic observations of childcare practices at seven daycare classrooms in two daycare centers in New Jersey for 18 months, from summer 2017 to winter 2019. I observed each classroom for 2-4 hours every two weeks for the first year. The following year, I continued observing each classroom 2-4 hours per visit once a month. All ethnographic observation participants, the teachers in the classroom knew that I was a researcher and that I was taking notes on their childcare activities, and all

[6] This study focused on traditional ECEC institutions, i.e., daycare centers and preschools. It didn't include the Montessori Schools.

provided oral consent before research began in their classrooms. Observation visits and times were coordinated in advance with all observation participants and adjusted according to their comfort level and/or practical circumstances. Observations were unobtrusive and made in silence. Typically, I followed and observed the daycare workers when they performed their daily childcare activities, including diaper changing, toilet training, feeding, cleaning, teaching, interacting, and playing with children. I focused on the interactions and conversations among the members of the daycare centers as well as their interaction with parents.

I call the two daycares "Happy Birds" and "Loving Garden" and created names for their classrooms as well. The table below provides detailed information about the classrooms I observed.

Table 1: Characters of field sites

Daycare Center	Happy Birds	Loving Garden
Age of Children	12 months-5 years old	18 months-5 years old
Classrooms	Baby Birds: 1-2 years old (ratio 1:3) Toddler Birds: 2-3 years old (ratio 1:5)	Bees: 1.5-3 years old (ratio 1:5) Ladybugs: 3-4 years old (ratio 1:8)

	Preschool Birds: 3-4 years old (ratio 1:8) Pre-K Birds: 4-5 years old (ratio 1:10)	Beetles: 4-5 years old (ratio 1:10)
Full-time employees	16	11
Part-time employees	10	3
Average seniority of full-time employees	12 years	10.5 years
Turnover in the last 3 years for full-time employees who work as lead teachers and assistant teachers	15%	10%
Turnover in the last 3 years for part-time employees as teaching aides and helpers	50%	30%
Curriculum and teaching philosophy	Creative curriculum to serve children's needs	Learning through playing

Food policy	Meals, snacks, milk, and water are all included. No outside food is allowed. Authorized caterers provide fresh hot meals daily.	Meals, snacks, milk, and water are all included. No outside food is allowed. The daycare cook provides fresh hot meals daily.

Both daycare centers are accredited by the National Association of Education for Young Children (NAEYC). Both have low turnover rates compared to the reported national staff turnover rate for full- and part-time workers, respectively (Whitebook, Phillips, and Howes 2014). Observing different age groups allowed me to gradually capture how children's bodies are socialized and disciplined to the hygiene ideas passed down by daycare teachers.

Happy Birds provides a creative curriculum for toddlers and preschoolers, and organizes the daily curricula to serve children's needs. Their learning goals highlight the need for nutritious diets and healthy habits. Loving Garden is founded on the notion of learning through playing, and all curricula revolves around interactive games with fun peer or teacher/student interactions. Both Happy Birds and Loving Garden provide more than eight activity centers in each classroom and encourage children to engage in the activity they find the most exciting. Both daycare centers have outdoor play spaces and emphasize outdoor play. Happy Birds has two play areas, one for 1- to 3-year-olds and the other for 3-5-year-olds. The former is around 800 sq. feet and equipped with three swings, two slides, a tiny sand pool, and an artificial lawn. Loving Birds has a single,

large play area, about 2500 sq. feet, including a large sand field, several playhouses, six swings, two gardens, and two slide and climbing sets covered by wood mulches.

NAEYC accreditation puts these daycare centers in an elite group; about 7%-10% of all childcare facilities in states nationwide have this certification (Winterbottom and Piasta 2015). Children receiving care at these centers come from middle-class families, much like the parents I interviewed. These centers are relatively well resourced, suggesting that any difficulties workers there face in maintaining daily childcare hygiene routines are magnified in daycare centers that serve less well-off families and do not have the resources to obtain NAEYC accreditation.

Furthermore, both facilities provide hot meals for lunch to students and do not allow any outside foods[7] to the centers due to concerns of food allergies. The meals served by the authorized caterer and the on-site cook, respectively, are diverse, nutritional, and hot, and children enjoy them in a family-style dining environment. Toddlers and preschoolers have the opportunity to set up the table, pass the utensils and napkins among themselves, and serve themselves milk and food, including rice, chili soup, pasta, taco, pita, vegetable, meat, cheese, and fruit.

Providing food not only creates more opportunities for children to learn healthy eating habits and table manners but it also generates more cleaning tasks for teachers and aides to complete. In both centers, children are encouraged to self-feed and engage in

[7] This rule applies even to special occasions, including birthdays and Valentine's Day. No outside food allowed. Parents cannot bring homemade sandwiches, snacks, nuts, candies, cakes, cupcakes, or any beverages.

eating activities that require teachers and aides to deal with more routine food-related cleaning and sanitation tasks, as immature self-feeders generate mess along with dirty dishes, dirty utensils, and leftovers.[8]

Happy Birds and Loving Garden provide diverse opportunities for a researcher to observe the interactions and conversations around hygiene and cleanliness in daily childcare practices. In all of these interactions, hygiene discourses are circulated and produced, hygienic bodies are produced and surveilled, and particular parts of hygienic bodies are highlighted and targeted.

In-Depth Interviews with Parents and Childcare Workers

To capture parental and nonparental caregivers' understandings, practices, and arrangements regarding dirt, cleanliness, and child hygiene in daily childcare activities, I conducted in-depth semi-structured interviews. The characteristics of parental interviewees are shown in Table 2.

[8] Loving Garden has a very diverse weekly food menu, aiming to achieve cultural inclusivity and diversity. The lunch dishes include fruits, salad, tacos, meat, pasta, chili soup, rice, pita, potatoes, noodles, and pizza. Happy Birds, on the other hand, offers primarily American food, including fruits, salad, bread, meat, tacos, pasta, chili soup, and pizza.

Table 2: Characteristics of parental interviewees

	Number (57 total)	
Immigration Status	Number	Percentage
Americans	32	56%
Immigrants	25	44%
Gender		
Mothers	46	81%
Fathers	11	19%
Race/Ethnicity		
White	23	40%
Black	8	14%
Hispanic	6	11%
Asian	20	35%
Number of Children		
One	29	51%
Two	20	35%
Three and more	8	14%

Age of Youngest Children		
Infants (under 1 year of age)	6	11%
Toddlers (1 to 3 years of age)	33	58%
Preschoolers (3 to 5 years of age)	18	32%
Parental Educational Attainment		
High School diploma	3	5%
Bachelor degree	34	60%
Master degree and above	20	35%
Annual Household Income		
Less than 50,000	5	9%
50,001-100,000	27	47%
100,001-150,000	17	30%
Above 150,001	8	14%
Homeownership		
Renter	22	39%
Homeowner	35	61%

For the nonparental childcare providers, both male and female childcare providers were recruited; however, none of the male childcare providers chose to participate. The characteristics of nonparental childcare interviewees are shown in Table 3.

Table 3: Characteristics of nonparental professional childcare worker interviewees

	N (17 total)	
Gender	Number	Percentage
Male	0	0%
Female	17	100%
Race/Ethnicity		
White	9	53%
Black	2	12%
Hispanic	2	12%
Asian	4	24%
Years of Experiences		
Less than one year	2	12%
1 to 3 years	4	24%
3 to 5 years	4	24%
5 to 10 years	2	12%

More than 10 years	5	29%
Type of childcare		
Independent Daycare Center	7	41%
Franchise Daycare Center	8	47%
Nanny	1	6%
Home Daycare	1	6%

Each interview was semi-structured and lasted from 60 minutes to 120 minutes and took place in person. Questions covered the topics of daily childcare tasks, including feeding, bathing, cleaning, and other tasks related to cleanliness and childcare; the experiences of and concerns about going out and eating out; the preparations they had made when welcoming their newborns home; and the transition from infancy to toddler stage, when children begin moving independently, crawling on floors, and mouthing objects. The division of labor among multiple child caregivers was addressed, as well as their opinions regarding cleaning and hygiene products. In interviews with parents, practices in places where their daily childcare practices occur were discussed, including but not limited to private homes, playgrounds, parks, grocery stores, public transit, and the local library.

I compensated each interview participant with a $15 check or gift card. The inclusion criteria for the parental interviewees were as follows: 1) New York/New Jersey/Philadelphia region residence; 2) fluency in English or Mandarin; 3) a parent of at

least one child aged 3 months to 5 years. The inclusion criteria for the nonparental interviewees were as follows: 1) New York/New Jersey/Philadelphia region residence; 2) fluency in English or Mandarin; 3) at least has one year of experience caring for children aged 3 months to 5 years in an ECE setting. [9]

Parent recruitment took place through the observed daycare centers, personal networks, snowball sampling, flyers, and advertisements on Craigslist. To recruit research participants who meet the sample criteria, a short questionnaire (completed online or by email) was used to screen participants. Few researchers have focused on East Asian immigrant families and their childcare, child-raising, and parenting practices. A population of Taiwanese and Chinese immigrants were recruited to address this gap.

Age of children

According to child development stages, children aged 3 months to 5 years explore the world with their bodies, hands, and mouths. Beginning at about 3 months old, babies start to explore their environment by putting things in their mouths. From around 9 to 18 months, children begin to crawl, walk, touch, and put everything into their mouths to try different tastes and textures (Charlesworth 2013). Therefore, these are primary times for childcare cleanliness practices. Parents and childcare givers with children aged 3 months

[9] Some childcare providers I interviewed had experiences working in non-center-based childcare settings, including private homes (as a nanny, Au pair, or home daycare teachers) and church (as care providers during Sunday school).

to 5 years may have rich experiences dealing with dirt during their daily childcare activities.

Chapter 2

The Production of Hygienic Subjects: Daycare Centers as Hygiene Institutions and Daycare Teachers as Hygiene Workers

About 80% of the U.S. 3-year-olds receive care in a childcare facility: a place other than their home where nonparental childcare providers offer childcare or early childhood education to children under 6 years of age who attend more than 4 hours and less than 24 hours a day. About half of these attend a center-based program, while the other half receive care in the nonparental caregiver's home. A slightly greater percentage of 4-year-olds are in childcare, about 85%, but they are much more likely to attend a center-based program, with less than a quarter who are in care attending a home-based program. About 90% of the U.S. 5-year-olds enroll in a daycare center (Barnett and Frede 2010; National Education Center For Education Statistics 2019).

Parents select where their children will receive early childhood education and care (ECEC). A study of parents' selection criteria suggests they look for high quality of teachers, well-designed curricula, friendly environment, good school practices (self-directed learning and play time, school receptivity, philosophy), and prompt responses to child's needs (Yamamoto and Li 2012) While daycare center management and teachers understand that part of their job is facilitating children's physical, emotional, intellectual, and social development (Hossain, Noll, and Barboza 2012), they likely do not consider hygiene practices and hygiene socialization as part of their primary goals. Rather, they see these as elements that facilitate other kinds of learning. Yet daycare centers can also be seen as hygiene institutions that produce hygienic subjects and daycare teachers as

hygiene workers. Observations at Happy Birds and Loving Garden suggest that they spend 60%-80% of their time on cleaning and conducting hygiene-related tasks. However, these aspects become invisible to both teachers and parents because social norms regarding keeping children clean are taken for granted, and state hygiene regulations on childcare centers and teachers' daily childcare practices are seen as routine jobs.

In the United States, state governments are the primary institutions governing childcare facilities, and there were no federal regulations on childcare facilities until 2020, when the COVID-19 pandemic required special measures. While policies and licensing requirements on childcare vary from state to state, every U.S. state and territory as well as the District of Columbia has regulation pertaining to programs, administration and staff, physical facilities, health, and fire safety (Friedman-Krauss et al. 2019).[10] New Jersey state government inspects childcare centers annually and home-based childcare programs every 3 years. The environment, daily childcare practices, and staff workers' and students' bodies are all subjects under the state government's hygienic surveillance. Failures of cleaning, sanitation, and disinfection can lead to failing inspection and

[10] For example, most states require the lead teachers at each classroom to hold at least a bachelor's degree and the assistant teachers hold at least a Credential on Child Development Associate (CDA). In contrast, some states have lower requirements for childcare providers' qualifications. Different regulations also appear in the size of the classroom. Most states cap the class size at 20 or lower and the staff-child ratio at 1:10 or better, while some states allow a large class capacity or a higher ratio for the staff-child. Each state also has different policies on employment screening as well as background checks. Most states ask the childcare providers to pass the criminal records checks before their employment in childcare facilities, while some states don't. Some states ask childcare providers for fingerprinting before their employment at any childcare center, while others don't. For detailed discussions about childcare policies in the United States, see, for example, Michel 1999; Phillips, Lande, and Goldberg 1990; Phillips and Zigler 1987.

ultimately to losing the license to provide care (New Jersey State Department of Children and Families 2017).

Institutionally, the state uses the hygiene regulations to produce the American hygienic childcare environment and hygienic bodies. In this chapter, I analyze how the state regulations on hygiene organize the daycare facilities I visited in a hygienic way, shaping the daily childcare schedule and the ways daycare teachers conduct activities, based on my interviews with daycare center childcare providers and my observations at Loving Garden and Happy Birds. The state's hygiene surveillance and intervention system control dirt at four distinct levels. At the individual level, they ensure a childcare provider's body is hygienic so as not to pose any risks of spreading germs. At the organizational level, they determine the daily routine and schedule of childcare activities and practices. At the environment level, they organize the childcare environment in a sanitized manner. At the community level, they enforce the classification of cleanliness and dirt in childcare practices (Douglas 1966) and produce disciplined hygienic daycare teachers and children (Foucault 1990, 1991a, 1995; Lemke 2001). State regulations and inspection practices label childcare facilities and providers who violate hygiene standards as inappropriate, deviant, and illegal. Through these requirements, childcare centers become the primary public health hygiene institutions to execute hygiene discourses and produce the hygiene normality of appropriate and good childcare environment and practices. Daycare centers became crucial public health sites of hygiene surveillance, and daycare teachers become disciplined hygiene workers.

At the Childcare Site: The Primacy of Hygiene and Cleanliness

According to the Early Childhood Environment Rating Scale, third edition (ECERS),[11] a high-quality ECEC program offers high quality with respect to (1) space and furnishings: indoor space; furnishings for care, play, and learning; room arrangement for play and learning; space for privacy; child-related display; space for gross motor play; gross motor equipment; (2) personal care routines: meals/snacks; toileting/diapering; health practices; safety practices; (3) language and literacy: helping children expand vocabulary; encouraging children to use language; staff use of books with children; encouraging children's use of books; becoming familiar with print; (4) learning activities: fine motor; art; music and movement; blocks; dramatic play; nature/science; math materials and activities; math in daily events; understanding written numbers; promoting acceptance of diversity; appropriate use of technology; (5) interaction: supervision of gross motor; individualized teaching and learning; staff-child interaction; peer interaction; discipline; and (6) program structure: transitions and waiting times, free play, whole-group activities for play and learning (Harms, Clifford, and Cryer 2015; Neitzel et al. 2019). Given how little emphasis this list gives to health and hygiene, it may be surprising that Happy Birds and Loving Garden are places of hygiene and cleanliness, where hygiene-related childcare tasks disproportionately occupy daycare teachers' time and energy.

[11] ECERS is the most widely used measurement to assess the quality of ECEC programs in the United States. The National Association for the Education of Young Children, the Quality Rating and Improvement Systems, the Head Start Family and Child Experiences Survey, and the Early Childhood Longitudinal Study-Birth Cohort have all used this scale (Neitzel et al. 2019).

State Health and Hygiene Requirements for Daycares

At state inspections, state agents examine whether a daycare site has conformed to the regulation that "[f]loors, carpeting, walls, window coverings, ceilings, and other surfaces shall be kept clean and in good repair" (New Jersey State Department of Children and Families 2017a: 42, emphasis added). Inspection of paperwork reveals whether a center has conformed to regulations that state all daycare workers "whose job duties require contact with the children for at least 20 percent of the center's weekly operating hours" present testing to indicate they are free of tuberculosis and have had a medical examination within the six months immediately preceding their employment (New Jersey State Department of Children and Families 2017a: 70-71). Daycares also must ensure enrolled children have a Universal Child Health Record and immunization record updated annually (New Jersey State Department of Children and Families 2017a: 69).[12] Such measures prevent contagion among enrolled children; they also mean that the state government uses daycares as sites to exercise its bio-power to control and monitor the health of young children. At centers, directors must conduct daily health checks to ensure daycare staff do not show signs of illness, whether physical or mental.[13] Daycare workers similarly act as gatekeepers for children's health, barring children with symptoms of

[12] Children may be exempt from the immunization and health assessment requirements for medical reasons or based on religious practices.

[13] Regulations list a host of highly specific signs of physical illness that should prompt a director to bar staff members, including "acute vomiting," "oral temperature of 101.5 degrees Fahrenheit or over," and "weeping or bleeding skin lesions that have not been treated by a health care provider"; it also mentions emotional and mental impairment "that would endanger the health, safety, and well-being of a child while the child is in the staff member's care" (New Jersey State Department of Children and Families 2017a: 70).

contagious disease.[14] The regulation also specifies the proper way to contain the contagious germs: separating the sick children from the rest healthy children or prohibiting the sick children from contact with other children. Children who have any symptoms of the illnesses are allowed to return when they are "symptom-free" or get a note from the health professionals to confirm that they pose "no serious health risk" to other people in the center. The manual requires the daycare workers to guide parents to seek medical assistance and a doctor's note to prevent further contagion (New Jersey State Department of Children and Families 2017a: 68).

All daycare staff undergo state-mandated hygiene training that is delivered by daycare administration twice per year at daycare centers. In this training, they learn to recognize three levels of cleanliness defined by the Center of Disease Control and Prevention[15] and state regulations: cleaning refers to the removal of dirt, sanitation refers to the lower numbers of germs, and disinfection refers to the killing of the germs. Through the hygiene training, an employee became a daycare worker who internalizes

[14] The list of symptoms that must bar children is fairly similar to those that bar workers, with the caveat that there is an exception of "medical diagnosis from a health care provider, which has been communicated to the center in writing, or verbally with a written follow-up, indicates that the child poses no serious health risk to himself or herself or to other children" (New Jersey State Department of Children and Families 2017a: 67, emphasis added).

[15] Cleaning removes germs, dirt, and impurities from surfaces or objects. Cleaning works by using soap (or detergent) and water to physically remove germs from surfaces. This process does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection. Disinfecting kills germs on surfaces or objects. Disinfecting works by using chemicals to kill germs on surfaces or objects. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection. Sanitizing lowers the number of germs on surfaces or objects to a safe level, as judged by public health standards or requirements. This process works by either cleaning or disinfecting surfaces or objects to lower the risk of spreading infection. https://www.cdc.gov/flu/school/cleaning.htm Visited on 5/21/2021

the hygiene regulations and imposes self-hygiene-surveillance on their daily childcare work.

One director described the distinctions thus:

> Cleaning is just removing any visible dirt. Sanitize is removing most germs, and disinfect is removing all the germs or as many germs as possible. … The tables. We're going to clean them. We're going to sanitize them before and after preparing or serving food. Disinfect would be with bleach. We want to use the least toxic product possible. So as long as they're sanitized, that's okay. The floors, we don't sanitize the floors. We just clean them after each meal. Then the cleaners sanitize at night time. … The doorknobs, we want to disinfect the doorknobs because [of] gooey little hands. So then after lunch, we're going just to give them a shot with the bleach … because everybody touches that. The water fountain, we're going to sanitize that. We don't want to disinfect because somebody's going to come and drink again. We don't them drinking bleach water.

In addition to distinguishing between types of clean, the state's regulations recognize hierarchy in the rules for the surveillance of contagious disease and germs. The daycare director checks if the daycare workers are free from contagious disease or germs, while the daycare workers check the children. Thus, in addition to drawing a boundary between health (free from contagious diseases and germs) and illness (carriers of contagious diseases and germs), the regulations draw a boundary based on status within daycare centers.

Children's bodies are also subject to state hygiene regulation. Daycare teachers are expected to keep children's hands, bottoms, and clothes out of dirt by washing, cleaning, or changing them:

> The center shall ensure that children three months of age and older wash their hands with soap and running water: i. Before intake of food; ii. Immediately after using the toilet or having diapers changed; iii. Immediately after coming into contact with

> blood, fecal matter, urine, vomit, nasal secretions, or other body fluids or secretions; iv. Immediately after coming in contact with an animal's body secretions; and v. Immediately after outdoor play. … Staff members shall ensure that: (1) Each child's diaper is changed when wet or soiled. … A child's clothing shall be changed when wet or soiled. (New Jersey State Department of Children and Families 2017a: 75-76, emphasis added)

Such regulations contrast with French regulations (Leroy 2017). France abandoned regulations requiring daycare workers to keep children clean in 1986 (Leroy 2017). Maintaining cleanliness is the children's responsibility.

The U.S. practice of making sanitation daycare teachers' responsibility has a significant impact on their daily practices. This is evident in the temporal structure of childcare schedules and workflow and how they determine daily childcare practices, as the next section describes.

The (State-Regulated) Temporal Patterns of Daily Hygiene-Related Childcare Tasks

Table 4 is the daily schedule for "Bees" (2- to 3-year-olds) classroom in Loving Garden. In the morning, there are five main activities: arrival/free play, breakfast, circle time, morning activity, and outdoor play. At noon, it has two timeslots: lunch and transition time. In the afternoon, there are five primary activities: nap time, afternoon activity, afternoon snack, outdoor play, and free play/pick up. I showed this to interviewees, and both parents and childcare providers described this schedule as common for a classroom for children of this age group.

I was surprised to learn when I began observing the Bees how much hygiene and cleanliness tasks seemed to supersede the activities listed on the schedule. Teachers spent most of their time and energy handling hygiene-related childcare work rather than focusing on the listed activities.

For example, "children arrival and free play" actually began with washing each child's hands. With 15 two-year-old children in the classroom with varying levels of independence, this task was extremely time consuming. On a typical day with the Bees I observed:

> Ian walked with his dad to the classroom. An assistant teacher, Miss May, greeted them with a big smile. Ian's dad handed Ian's backpack to Miss May, hugged Ian, said goodbye to Ian, and left. Miss May asked Ian to walk to the sink and told Ian to wash his hands with the teaching aide, Miss Maire. Miss Maire: "Good morning, Ian! Let's wash your hands." Ian nodded. "Pull up your sleeves. Wash your hands with soap," Miss Maire said. Ian climbed on the step stool by the sink and started to wash his hands. "Let's sing a song," said Miss Maire. She was monitoring his actions, singing and instructing: "This is the way we wash our hands, wash our hands, early in the morning. Rub your hands together! Let's count, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10." Ian followed instructions. However, he did it very slowly.
>
> Meanwhile, Emery came in with her mother. The lead teacher, Miss Kay, greeted Emery and her mom, and when her mother left, Miss Kay walked with Emery to the sink and asked Emery to wait to wash her hands. Ian was still rubbing his hands with soap. Miss Maire took Ian's hands and rinsed them under the running water. Then she said: "OK, let me check." Ian put his wet hands up in front of Miss Maire's eyes. Miss Maire grabbed a paper towel, handed it to Ian, and said, "Dry your hands with a paper towel." Ian complied, and Miss Maire said, "You are all set. Now you can go and play." Ian smiled, came down from the step stool, and went to the play area where he told the assistant teacher, Miss May, that he wanted to play with blocks. The teaching aide, Miss Maire, continued to help Emery wash her hands before she started her free play, and the cycle continued.

Although the schedule describes "arrival" and "free play" as the focus of the period, the assistant teacher, Miss Maire, was dedicating all of her time to supervising handwashing.

I observed similar patterns during the day. Almost every childcare activity includes some cleaning and hygiene components, but these tasks are usually invisible to parents because they are not written in the classroom's daily schedule or brought out as an issue to talk over with parents. Likewise, teachers do not consider these part of the "core teaching or care activity" being conducted, and this is why they do not note it on the daily schedule. The hygiene-related childcare labor becomes invisible.

As Table 4 shows, every scheduled activity includes cleaning and hygiene childcare tasks not written on the daily schedule. Handwashing is the most common hygiene activity, which is not written on the schedule. According to the state hygiene regulation, handwashing takes place 12-13 times a day: before each meal time (3 times), after each meal time (3 times), after each outdoor play (1 time) and artwork activity (1 time), and after each diaper change (4-5 times). A daycare teacher spends 20-30 minutes ensuring that all of the children clean their hands properly at each of these times.

Mealtimes and artwork activities include a 15-minute cleanup time for teachers to clean up the environment, including wiping up the food debris, cleaning up, disinfecting the dining surface, and sweeping the floor. Diapering and toileting are not scheduled but each represents a 30-minute unwritten timeslot that comes every two hours. Teachers also usually spend 15-30 minutes every day sweeping the floors and carpeting, and wiping the walls, window coverings, ceilings, and other surfaces, typically in the early morning or during nap time. For example, my field notes from Happy Birds include:

> When children were eating their meals, the teaching aide, Lucy, was busy sanitizing and disinfecting the frequently touched surfaces and objects in the classroom. She held a spray bottle with a disinfectant in her right hand and a clean cloth in her left

> hand. First, she wiped down the surface; next, she sprayed the disinfectant on the surface; then, she let it air dry. She continued to clean and disinfect the door handles and knobs, windows, cabinets, lockers, cubbies, bookshelves, trash bins, light switches, sinks and surrounding areas, and countertops. Later, she moved to the dramatic play center and blocks center to disinfect the shared playing items and materials.

All told, in an 8-hour-shift,[16] there are 4-6 hours every day when at least one teacher focuses on cleaning and hygiene-related activities. Indoor activities, such as finger/foot painting, sensory dough, cooking, handcrafting, and sandbox may require more handwashing and cleanups. The younger the children, the more time hygiene requires, and these tasks often fall to the lower-level teachers.

Table 4: Schedule for 2- to 3-year-old classroom at Loving Garden

Time	**Scheduled Activities**	**Actual Happened Childcare Activities**	**Tasks Related to Hygiene and Cleanliness**	**Estimated Time to Complete the Hygiene-Related Tasks**
7:30-8:30	Arrival, Free Play (Books, Puzzles,	Handwashing Free Play	Washing Hands (soap, water, and paper towel)	20 mins

[16] For example, 6:30 am-2:30 pm, 7:30 am-3:30 pm, or 9:30 am-5:30 pm. The daycare center asks its workers to take flexible shorter shifts to cover the busiest period of time (lunch time: 11:30 am-12:30 pm) and to take off during the least busy time (nap time: 1:00 pm-3:00 pm). So, part-time caregivers are assigned 7:00 am-1:00 pm or 10:00 am-1:00 pm and 3:00 pm-6:00 pm.

	Kitchen Toys)		*Teachers help children to wash their hands after entering the classroom	
8:30-9:00	Breakfast	Handwashing Food Serving Cleaning, Sanitizing, and Disinfecting Food Log and Report	Washing Hands (soap, water, and paper towel) Removing Dirt (food debris and leftovers) Cleaning up the meals (dirty dishes, cups, and utensil) Cleaning, Sanitizing, and Disinfecting Tables and Surfaces (soap water spray, bleach spray, and paper towel)	30 mins

9:00- 9:20	Circle Time	Handwashing Diaper Change/ Toileting Sanitizing and Disinfecting	Removing Dirt (body fluids and wet diapers) Cleaning Bottom (disposable gloves and wipes) Sanitizing and Disinfecting the Changing Table and Surface (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	20 mins
9:20- 9:30		Circle Time		
9:30- 10:00	Outdoor Play	Dressing Up Outdoor Play		

10:00- 10:30		Handwashing Diaper Change/ Toileting Sanitizing and Disinfecting	Removing Dirt (body fluids and wet diapers) Cleaning Bottom (disposable gloves and wipes) Sanitizing and Disinfecting the Changing Table and Surface (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	30 mins
10:30- 11:00	Morning Activity (Cooking, Science, Art works,	Morning Activity	*Wearing painting mocks	
11:00- 11:30		Clean Up Handwashing	Tidy up (Sort things into order)	20 mins

	circle time, reading, singing, puzzles, dramatic play, cooking)		Washing Hands (soap, water, and paper towel) *Handwashing after activities if needed	
11:30-11:45	Lunch	Handwashing	Removing Dirt (food debris and leftovers) Cleaning up after the Meals (dirty dishes, cups, and utensil) Cleaning and Disinfecting Tables and Surfaces (soap water spray, bleach spray, and paper towel)	40 mins
11:45-12:20		Food Serving Cleaning and Disinfection Food Log and Report		

			Washing Hands (soap, water, and paper towel)	
12:20-12:50	Transition Time (Clean up for Nap time)	Handwashing Diaper Change/ Toileting Sanitizing and Disinfecting	Removing Dirt (body fluids and wet diapers) Cleaning Bottom (disposable gloves and wipes) Sanitizing and Disinfecting the Changing Table and Surface (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	30 mins
12:50-14:20	Nap Time	Nap Time	Cleaning and Disinfecting Dining	40 mins

	(quiet time, reading, or drawing)	Sanitizing and Disinfecting Dining Area Sanitating and Disinfecting classroom environment	Tables and Area (soap water spray, bleach spray, and paper towel) Sanitizing and Disinfecting of windows, cubbies, door knobs, countertops, and common area (soap water spray, bleach spray, and paper towel)	
14:20-14:50		Diaper Change/ Toileting Handwashing (as children wake up) Cleaning and Disinfection	Removing Dirt (body fluids) Cleaning Bottom (wipes and plastic bags) Washing Hands (soap, water, and paper towel)	30 mins

14:50- 15:20	Afternoon Activity (Story time / Dance)	Afternoon Activity	Washing Hands (soap, water, and paper towel) *Handwashing after art projects if needed	
15:20- 15:50	Afternoon Snack	Handwashing Serving Food Sanitating and Disinfecting Food Log and Report	Removing Dirt (food debris and leftovers) Cleaning up after the Snacks (dirty dishes and cups) Cleaning and Disinfecting Dining Tables and Area (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	30 mins

15:50-16:20	Outside Play/ Bubbles/ Roll Around Balls	Dressing Up/ Outdoor Play		
16:20-16:50		Handwashing Diaper Change/ Toileting Sanitating and Disinfecting	Removing Dirt (body fluids and wet diapers) Cleaning Bottom (disposable gloves and wipes) Sanitating and Disinfecting Changing Tables and Surfaces (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	30 mins
17:00-18:00	Free Play/ Pick up	Free Play / Pick up		

When I described what I observed at Loving Garden and Happy Birds, daycare workers I interviewed confirmed that they are not outliers. The pattern of cleaning and hygiene-related childcare activities was quite familiar to them, because it is the only way to meet the state hygiene regulations. For example, state regulations include this passage:

> The [daycare] center shall ensure that children three months of age and older wash their hands with soap and running water: i. Before intake of food; ii. Immediately after using the toilet or having diapers changed; iii. Immediately after coming into contact with blood, fecal matter, urine, vomit, nasal secretions, or other body fluids or secretions; iv. Immediately after coming in contact with an animal's body secretions; and v. Immediately after outdoor play. (New Jersey State Department of Children and Families 2017a: 75)

Likewise, regulations indicate that teachers must wash their hands with soap and running water "immediately":

> i. Before preparing or serving food; ii. After toileting; iii. After assisting a child in toileting; iv. After caring for a child who appears to be sick; v. After coming in contact with an animal's body secretions; and vi. After coming into contact with blood, fecal matter, urine, vomit, nasal secretions, or other body fluids or secretions. (New Jersey State Department of Children and Families 2017a: 75)

The regulation is based on the scientific evidence that handwashing is the most effective way to cut the spread of germs and reduce the chances of disease transition (American Academy of Pediatrics 2014; American Public Health Association et al. 2019). Public health experts and policymakers highlight its value (New Jersey Department of Health 2014; New Jersey State Department of Education 2018).

The state also provides written rules for diaper changes, which must occur whenever children have wet or soiled diapers (New Jersey State Department of Children and Families 2017a: 75). According to American Academy of Pediatrics (AAP), a healthy

child would produce a soiled diaper every 1 to 3 hours, on average (American Academy of Pediatrics 2014; American Public Health Association et al. 2019). While Loving Garden is only open until 5 pm and Happy Bird until 5:30 pm, many centers have longer hours, suggesting that teachers must change 4-6 wet diapers a day per child—all time not listed on the official schedule. At Loving Garden in the 2-year-old classroom, five timeslots happen at regular intervals when teachers check or change all of the diapers in the classroom.

The (State-Regulated) Behavioral Patterns of Daily Hygiene-Related Childcare Tasks

One of the reasons cleaning takes so much time is that it must conform to particular specifications. State regulations read:

> The schedule for disinfecting shall be as follows: i. The following equipment items or surfaces shall be washed and disinfected after each use: (1) Washcloths made of fabric, when used for cleaning children; (2) Thermometers; (3) Items used by a child who becomes ill while at the center; and (4) Sleeping mats that are not stored separately. … iv. Tables used by the children for eating shall be washed and disinfected before each meal. … (e) For early childhood programs, the following shall apply: 1. In addition to the items specified in (a)3 above, the following equipment items or surfaces shall be washed and disinfected after each use: i. Toilet training chairs and potty seats that have first been emptied into a toilet; ii Sinks and faucets used for rinsing a toilet training chair; iii. Diapering surfaces; iv. Toys mouthed by infants and toddlers before being given to another child; and v. Bottles, nipples, and other feeding equipment. 2. All diaper pails and lids shall be disinfected daily. … The center shall ensure that all washable items of play equipment, supplies, and toys that one group of sick children, as specified in N.J.A.C. 3A:52-8.3(d), have contacted are washed with soap and water and disinfected before allowing them to be used by another group of sick children.

> ii. The following items shall be washed and disinfected at least daily: (1) Toilets and toilet seats; (2) Sinks and sink faucets; (3) Drinking fountains; (4) Water table and water play equipment; (5) Play tables; and (6) Smooth surfaced non-porous floors in areas used by children. iii. The following items shall be washed and disinfected at least weekly: (1) Cribs, cots, mats, playpens, or other Office of Licensing-approved sleeping equipment; and (2) Sheets, blankets or other coverings. (New Jersey State Department of Children and Families 2017a: 73-74, emphasis added)

The state government also defines the procedure and the proper disinfectant, calling for washing first with soap and water and then disinfecting either with "a commercially prepared disinfectant that indicates it kills bacteria, viruses, and parasites," or "a self-made solution consisting of one-quarter cup of household bleach to each gallon of water (one tablespoon per quart), which shall be prepared daily and placed in a labeled, sealed container" (New Jersey State Department of Children and Families 2017a: 73). Such regulations make daily routine hygiene-related tasks tedious and labor-intensive as well as time-consuming.

With respect to diaper changes, the state highlights body fluids, especially feces and urine, as the most severe hygienic and health hazards, as feces and urine are considered to be carriers of germs. State requirements include:

> i. Staff members shall ensure that: (1) Each child's diaper is changed when wet or soiled; (2) Each child's bottom is washed and dried during each diaper change with an individual disposable wash cloth, paper towel, or disposable diaper wipes; and (3) The staff members' hands are washed after changing each diaper. … Equipment used for cleaning the diapering surface shall be restricted for use in this area only and shall be disposable or laundered in hot soapy water. (4) Staff members who use disposable gloves during a diaper change shall dispose of these gloves after each use and shall wash their hands. iv. Soiled diapers shall be disposed of as follows: (1) Soiled disposable diapers shall be placed in a closed container that is lined with a leakproof or impervious lining. Such diapers shall be removed from the center daily and placed in a closed garbage receptacle outside the building. (2) Soiled non-disposable diapers shall be placed in a sealed plastic container that has been labeled

> with the child's name. Such diapers shall be returned to the child's parent at the end of that day. (New Jersey State Department of Children and Families 2017a: 75-76)

In a classroom with 12 children or more, these regulations make the daily diaper change a tedious, time-consuming, and labor-intensive task. Below is a common diaper-changing scene that happened 4-6 times a day in the Happy Birds "Baby Birds" classroom:

> It's time to check the children's diapers and change all dirty diapers. Britney washed her hands with soap and running water in the sink, put on disposable gloves, and grabbed a new changing table sheet from the cabinet above the changing table. She carried one child up to the changing table, placed him on the changing table, buckled him up with the safety strap, took a clean diaper from the top cabinet, lifted the boy's feet, pulled down his pants, unfastened the dirty diaper, and used disposable baby wipes to clean his genitals, belly, and buttocks, using clean wipes to remove the stool and urine from front to back three times. Then, she threw the soiled wipes in a plastic-lined, hands-free, covered trash can underneath the changing table, folded the soiled diaper surface inward, threw the soiled diaper the same trash can, put a clean diaper underneath the child's bottom, and fastened the clean diaper. Then, she wiped the boy's face with another fresh disposable baby wipe. The boy didn't like his face being wiped and was moving his head around and waving his hands. After his diaper had been changed, Miss Britney helped the boy sit up, moving him from the changing table to the floor. The baby boy stood up and was directed to go to the sink to wash his hands by another teacher.
>
> Then Miss Britney squeezed a spray bottle labeled "disinfect" to sanitize the changing table and wiped the changing table with a paper towel to dry it out. Next, she took off and threw away the disposable glove in the trash can, washed her hands with soap and running water, dried her hands with paper towels, and put on a new pair of disposable gloves. The process began again. Miss Britney changed 12 diapers in 30 minutes, repeating the same steps each time.

Through this process, a teacher in theory goes through 60 pairs of disposable gloves a day,[17] not to speak of paper towels, wipes, and the sheets that go on the changing tables.

[17] For example, in a classroom of 12 children, if all teachers use a new pair of disposable gloves for every diaper change, one diaper change time in one classroom will use 12 pairs of gloves (24 gloves), a classroom will use 1.2 boxes (100 gloves per box) a day because teachers need to change every child five times (12*5=60 pairs of gloves; 24*5=120 gloves) a day.

Some childcare franchises have even stricter hygiene rules, as Lydia, an Asian immigrant daycare assistant teacher who worked in ECEC for four years, shared:

> In the training, the center taught us the standard steps to change a diaper. For example, you need to sanitize the changing table with sanitizer. You need to put on disposable [rubber] gloves for every single diaper change. Wipe baby's diaper area from the front to the back, never wipe back and forth because you could spread the germs. When you put on a clean diaper, you need another new pair of disposable gloves. If the child has diaper rush and you need to apply the diaper rash creams, you need the third pair of disposable gloves.

To fulfill the franchise internal hygiene rule, teachers need 120-180 pairs of disposable gloves a day[18] to change diapers hygienically. Furthermore, these franchises have internal quality assurance (QA) teams to make sure all daycare workers are following the hygiene rules. As Lydia continued:

> Headquarters will send a QA inspector to inspect us every three months. The inspector comes randomly. They [QA inspectors] would check all the safety and hygiene issues, including if the classroom is appropriately child-approved; if teachers change diapers hygienically, if the children's personal belongings are well-labeled, for example, cups, cubbies, extra clothes, rolling beds, diaper creams, wipes; if the learning materials are well-disinfected, including toys, chairs, desks, and other sharing stuff.

To pass the internal inspections, Lydia told me that these hygiene rules became her habit so that she didn't even need to think about it when she was doing her job. She did it automatically. Lydia believed that it is necessary to follow the hygiene rules because they protect her and other staff members from getting sick.

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[18] For example, in a classroom of 12 children, if all teachers use three new pairs of disposable gloves for every diaper change, one diaper change time in one classroom will use 12*2-3=24-36 pairs of gloves (48-72 gloves), a classroom will use 2.4-3.6 boxes (100 gloves per box) a day because teachers need to change every child five times (24-36*5=120-180 pairs of gloves; 48-72*5=240-360 gloves) a day.

Min, an Asian immigrant daycare assistant teacher who worked in a childcare franchise for three years, shared beliefs similar to Lydia's. She said:

> I don't think it is tedious. It is important! It will protect me. I always put on a new pair of gloves for each diaper change because I might touch the pee or the poop. With gloves, I feel I am protected from getting sick or getting dirty. I also put on a new pair of gloves for diaper cream because you don't want to use your bare hand with [diaper] cream on children's bottom. You might spread the germs, and it's greasy. It's disgusting to get poop or diaper cream under my nails accidentally. … I will wear a new pair of gloves when I put on their diapers since the second pair of gloves is dirty with the diaper cream.

Both Lydia and Min believed that the hygiene rules could protect them from getting sick and wanted to follow the rules precisely. However, in reality, they couldn't because it's not practical. For example, Lydia shared:

> The rule [for diaper changing] is to use spray to disinfect diapering surfaces after each diaper change. I got it. It aims to kill all the germs. However, it's impossible to do it. [Why?] Because when you spray the disinfectant spray on the diapering surface, it will get wet and you're suppose to wait and let it air dry. It takes about one minute to be air dry. But we have 15 children. They are waiting to get their diaper changed. I cannot wait to let it air dry every time. I can only spray the disinfect and wipe it with paper towel.

Several daycare teachers complained that the state rules are impractical. The state rules didn't take the frequency of diaper changes, the age of the children, or the types of diapers into consideration. A senior daycare teacher who had been in the childcare industry for about 20 years, Ann, confessed to me that she didn't always follow these rules. Instead, she washed her hands before the first diaper change and after the last diaper change unless she got stool or urine on her hands in spite of the gloves. Likewise, she used the same pair of disposable gloves for all 12-15 children unless the gloves were evidently soiled by stool or urine in the process. She didn't disinfect the changing table

for every single use; instead, she disinfected the changing table before the first diaper change and after the last diaper change unless stool or urine had soiled it. Ann explained: "I know what dirty and clean looks like! When my [disposable] gloves are dirty, I know it and I will get a new pair. However, it's too much to get a new pair for EVERY single diaper change."

She also said that as an experienced childcare provider, she knows how to change diapers "quickly without getting [her] hands dirty." Furthermore, she also emphasized: "I just don't think that the exposure hurts the children, at all."

Another assistant teacher, Corrine, also disclosed that she didn't follow the state regulations all the time, after working with young children for five years. She shared:

> I actually don't follow them [the state regulations]. Since most of the kids I have in my classrooms are using pull-ups [disposable underwear for children who are potty training]. I ask them to stand in front of me, pull down their pants or leggings, and remove the dirty diapers. Then, ask them to work with me to put on the clean pull-up diaper.

Corrine does not use a changing table at all with the children she works with, who are older than 2.5 years old. She also explained that, since most of time the urine is absorbed in the diaper, she does not touch it and thus does not need gloves or handwashing.

The Impact of Staff/ Child Ratio

Corrine and the lead teacher in her classroom of 16 children also do not wash and disinfect the potty the children use after every single use. She described the process of toileting for children in her classroom:

> So, like one of us would stay with the ones who were already potty trained and, the other would stay with the ones who weren't. So, then the ones who weren't, they would go in one at a time. First we would check, like we would lay them on the mat, we would check their diaper, to see if it was dry or dirty, and then we would have them sit on the toilet for, we'd set a timer for like two minutes. And like I said, we'd sing to them, give them something they'd like to get, encourage them to go, and then we'd put a clean diaper back on them.

This tradeoff is necessitated by state regulations for staff-to-child ratios; there's no one extra to wash and disinfect the potty. According to Corrine, even without any disinfection of equipment, the process takes 3-5 minutes per child, which translates to about 25-40 minutes for each batch of 8 children. It is impossible for two daycare teachers to wash and disinfect the training potty or chairs after every single use.

Staff/child ratio is considered a crucial metric of quality for ECE (Vandell and Wolfe 2000). Table 5 shows the New Jersey state regulation on staff/child ratio and maximum group size for each age group in daycare centers.

Table 5: New Jersey state regulation on the staff/child ratio and maximum group size for each age group

Age	**Staff/Child Ratio**	**Maximum Group Size**
Under 18 months	1:4	12
18 months up to 2.5 years	1:6	20
2.5 years up to 4 years	1:10	20
4 years	1:12	20
5 years and older	1:15	30

Corrine's classroom slightly exceeds the required ratio (1:8 vs. 1:10), but it is still impossible to meet the state requirements for hygiene routines. Indeed, only a few teachers I interviewed and observed fulfilled the state regulation on cleaning and disinfections precisely. Most teachers I observed and interviewed were either unable to fulfill the regulation because of shortage of manpower or felt it not necessary to follow the regulation because they believed that exposures to dirt is harmless to children. For those who fulfilled the regulations, all of them were in the youngest classroom, which

was of children under 18 months old. These teachers spent most of their time on cleaning and hygiene, which left little time for interacting with children, conducting learning activities, or responding to children's other needs.

All teachers I interviewed and observed reported that under current ratio requirements, as shown in Table 5, they were still understaffed. Loving Garden's 2-year-old classroom actually has a 1:5 ratio, with a lead teacher and two assistant teachers and 15 children. However, teachers told me it's still not enough and that they wish they had an even lower staff/child ratio, especially during lunch time. A typical transition between lunch time and nap time that I observed reflected understaffing:

> As the 2-year-old class finished lunch, Miss Mary, an assistant teacher, helped children finish their food, while Portia, a teaching aide, collected their dirty dishes. Meanwhile, Jenny, the other assistant teacher, turned on the tap water and waited for it to warm, so she could help children clean their hands when they finished eating. Debra, the lead teacher, held a pile of children's daily sheets—her job was to write a lunch report detailing each child's eating habits.
>
> *Fifteen children were* sitting at the dining table and waiting for teachers to clean them up. But there was only one sink equipped for children to stand at in the classroom. Teachers could only wash one child's hands at one time. The rest of the 14 children were sitting at the dining table, waiting. Portia was checking with each child to see if they were done with their lunch. For those who were, Portia collected the leftover, dirty cup, dish, and utensils. Debra looked at each child's plate and filled out their lunch reports. Debra also paid attention to see who was done and ready to go. One child, Freddy, stopped eating and started to throw food at Noah. Debra noticed and called to him, telling him to go to Jenny for handwashing and cleanup.
>
> Jenny washed her hands before helping Freddy. First, Jenny wiped up and removed the food debris from Freddy's clothes and paints. Next, she wiped the tomato sauce from Freddy's messy face with a wetted paper towel. Then she pulled his sleeves up, wetted his hands under the running warm water, pumped the hand soap on his palms, and held his hands to rub. "This is the way we wash our hands, wash our hands, wash our hands. This is the way we wash our hands, early in the morning," Jenny sang, the handwashing song, twice. After about 20 seconds, Jenny asked Freddy to put his hands under the running water to rinse clean. Then she gave

him a clean paper towel and asked him to dry his hands. Then she asked him to wait by the sink for the next available teacher to pick him up to go to the bathroom. Debra sent the next child to Jenny for handwashing immediately. Two of the 13 children still waiting to be cleaned up and get their hands washed, stood up and tried to leave the dining table. Another child, Sydney, threw a loud, tearful tantrum. Suddenly, everything seemed chaotic. Debra called the two children's names to sit still and approached Sydney to pick her up, cuddled her, and calmed her down. Meanwhile, Debra was still filling out the reports and talking to children to check if they were done. When Jenny announced that she could help the next child, Debra sent the third child to Jenny for handwashing. Mary managed six children to keep them sitting on their chairs.

After the first three children were done being cleaned by Jenny, Mary brought them to the bathrooms, which have three child-sized toilets, only to find one was in use by a child in an older classroom. She asked them to go potty, meaning pull down their paints and sit on the toilet. The third child waited on the bench while the first two waited for Mary's help to pull down their pants/leggings as well as their diapers. Mary bent down, pulled down the first child's pants, unfastened the diaper tapes, grabbed a plastic bag, and asked the child, Freddy, to throw the soiled diaper into the plastic bag she held. Freddy grabbed the diaper and PLAYED with it instead of obeying. Fortunately, it was only wet, not poopy. Mary said to Freddy: "No! It's dirty, don't play with the dirty diaper! Throw it to the bag." He stopped play with the diaper and threw it into the bag. Mary told him to go and sit on the toilet. She knotted the bag and threw it into a large trash can. The child walked to the toilet and sat on it.

Then, Mary helped the second child pull down their leggings, unfasten the diaper tapes, and ask her to throw the diaper into another plastic bag. This child followed the instruction, and Mary praised her: "Good job. Now, you can go potty." The child, Madison, walked to the toilet and sat on the toilet. However, she only pulled up the front part of her dress, and the back of her dress got wet with the toilet water and urine. However, Madison didn't notice it. Nor did Mary at this point, as she was helping the third child much as she had the first two, as the older child had washed her hands and left. The third child also disposed of the diaper properly.

A fourth child had come, but the toilets were all still occupied. Mary asked the first two if they were done. Both said yes. Freddy got out of the toilet, flushed, and walked back to Mary without wiping his bottom. Madison stood up, grabbed the toilet paper, wiped her bottom, and directly walked to Mary in her wet dress without stopping to flush.

Mary asked the fourth child to sit on the toilet. She then instructed Madison to go back and flush the toilet while she helped Freddy who had not wiped his bottom to put on a clean diaper and pull up his pants. She told him to wash his hands, which he did.

Madison walked back to the toilet, but she stood in front of the toilet instead of flushing it. It seems Madison was a little afraid of the toilet. Mary noticed this, and she held Madison's hands, and guided her to press the flush handle. They flushed the toilet together. "That's the way we flush the toilet," Mary told her. She walked Madison to the bench to help her to put on a clean diaper. She reminded Madison again that it is important to flush, then noticed the girl's dress was wet. "Oh! Your dress was wet," she said. "We need to get you a clean one."

The third child told Mary: "I am done. Can I get up?" Mary asked him to wait so she could change the girl's dress, saying, "Do you want to try a little longer?" It was clear Mary was feeling stressed, given her quick movements and the higher pitch of her voice. Mary needed to get a new dress for Madison, but she couldn't leave the bathroom to go to the cubbies to grab it because she couldn't and shouldn't leave the children in the bathroom alone. Mary looked up at me, and it seemed like she wanted to ask me to call the other teachers to come to help her. I looked at her back, unsure what I should do. Before I said a word, another teacher showed up.

Debra entered the bathroom with three more children behind her. "Three more are coming," she announced. She instructed them, the children, she had brought to sit on the bench, then asked, "Is anyone done? I can bring them back to the classroom." Mary's face showed significant relief, explaining what had happened and asking her to fetch Madison's change of clothes, which Debra did, quickly.

Now Mary was watching seven children in the bathroom. Three of them were sitting on the bench and waiting for a toilet to become free. Two children were sitting on the toilet, having been told to "try a little longer." These two rose to return to Mary for help with a new diaper. One child was standing in front of Mary with a wet dress waiting to get changed. One was done with handwashing and wanted to go back to the classroom but was instructed to wait by the sink. All the children were restless, and Mary clearly did not feel ready to handle all seven of them simultaneously.

Lucy, another teaching aide, rushed into the bathroom with Madison's clean clothes, saying that Debra had asked her to help Mary. Lucy took Madison over from Mary. After putting on Madison's clean clothes, Lucy helped Madison wash her hands. Mary helped the other two children who were done with the toilet put on their clean diapers, pulled their pants back on, and asked them to wash their hands. Lucy asked the three children who were sitting on the bench to go potty. They waited in a line to get help from Lucy and Mary to pull down their pants or leggings and get their diapers pulled down.

Debra was back with three more children. She then spoke to the first child, Freddy, who had been waiting by the sink for about five minutes. "Thank you for being patient," she said. then walked the first three children back to the classroom. In the classroom, Jenny gave another four children to Debra and took the three cleaned children to their mats for a nap.

> In the classroom, I noticed that Portia was still cleaning up. She had cleaned up all the leftovers, dishes, cups, and utensils. She had swept the floor and made sure that the floor was clean for 15 children's sleeping mats. But she was still working on wiping down and disinfecting the dining table and chairs. It was almost nap time, but about half of the children were not changed yet.

The Role of Hierarchy in Hygiene Routines

Daycare workers complete daily cleaning, sanitation, and disinfection tasks in a hierarchical way in that teaching aides and assistant teachers, rather than lead teachers, complete most hygiene-related tasks. In my observations, roughly 80% of the job for the lowest-level teachers, teaching aides, who are all women of color and immigrants, like Lucy, Maire, Nia, and Maya, are related to hygiene or cleanliness tasks. Meanwhile, about 50% of the daily duties for middle-level teachers, assistant teachers, who are about two-thirds White women, like Mary, Anna, Jenny, and Corrine, are hygiene-related tasks. In the classrooms with three teachers (a lead teacher, an assistant teacher, and a teaching aide), I never saw a lead teacher conduct these types of cleaning tasks.[19] Debra is a lead teacher, and it is typical that she helped out by asking someone to retrieve Madison's clean clothes, and she had Lucy help Mary rather than changing the girl herself. Lead teachers usually function as pedagogical or curriculum planners and problem solvers who organize and design daily circle time, lesson plans, and learning activities, and direct

[19] If there are only two teachers in the classroom, the lead teacher would have to share some cleaning and hygiene-related tasks.

other teachers to solve the current issues while middle-level teachers supervise and teach aides to execute the hygiene-related childcare tasks to help children achieve cleanliness.

Teaching aides tended to chafe at their hygiene-related duties. From my observations, a teaching aide, Maya, once joked to me that "soap, disinfectant spray, disinfecting wipes, paper towel, and disposable gloves are the five essential tools for me to do my job. Guess what? I am not a janitor, but a daycare teacher!" I had to agree with this formulation of her job. Based on my interviews and ethnographic observations, none of the lead teachers and few assistant teachers consider the sanitation tasks part of their ECE profession. However, more junior assistant[20] teachers seemed to object less to being asked to do these tasks, to recognize that lead teachers will not take on these jobs and that therefore they must. More senior assistant teachers viewed it as a "janitor's job," and they generally felt that it was a sign of disrespect to their ECE expertise that they were assigned to sanitize the classroom.

Field notes from Happy Birds describe how Miss Anna, a senior assistant teacher, feels about the fact that she is expected to play a significant role in the post-lunch cleanup. Since Happy Birds gets catered meals delivered, teachers at Happy Birds also have to clean up the leftovers, put the dirty dishes into the dishwashers, and operate the machines by themselves. Teachers at Happy Birds complained about this cleaning task all the time, and had they worked at Loving Garden, they would not have had to face it,

[20] Junior assistant teachers are teachers with less experiences while senior assistant teachers are teachers with more experiences in the childcare field. In general, junior assistant teachers are younger while senior ones are older.

because Loving Garden has an on-site cook, and so teachers do not have to do more than collect the leftovers, dirty plates, cups, and utensils, and send them to the kitchen. The cook takes over the rest, including dumping the pieces and washing the dishes. Below is a typical scene from a lunchtime at Happy Birds:

> It's lunchtime for the 4-year-old classroom. Twenty children were eating lunch with music. After 20 minutes of lunchtime, some children were done eating and started to play with their food. Miss Beth (the lead teacher) asked children to stop playing with food. She announced, "If you are done eating, start making your way to Miss Anna. If you all clean up, you can come here to have a seat by the wall and play Simon Says." About six children brought their dirty plates with leftovers, cups, and utensils to Miss Anna, the assistant teacher who manages the meal time cleaning tasks. Miss Anna instructed them to put their dirty plates, cups, and utensils on the countertop and directed them to walk to Miss Beth. However, she could not ask any of the rest of the children to clear their own dishes because the countertop was full from the first third of the children, and there was no room for more.
>
> Miss Beth counted the children in the class and brought them back to the classroom. Miss Anna worked on the leftovers, dirty plates, cups, and utensils with two teaching aides, Miss Raven and Miss Nia, with a grim expression, her eyebrows low and her nose wrinkled. Two fingers in disposable gloves picked up a dirty plate, and she dumped the leftovers from the dirty plates to the kitchen sink's garbage disposal unit. As she did, she complained loudly, "Oh, gross! Oh, disgusting! It's gross!" She turned on the garbage disposal unit. Suddenly, she yelled out loud, "Disgusting! I felt I've got to vomit EVERY! SINGLE! DAY!" No one reacted to Miss Anna's complaining. Both Miss Raven and Miss Nia kept cleaning the dirty plates silently. Miss Anna's shirt had gotten stained from liquid food spurting from the garbage disposal unit. She made a face of disgust and made a retching sound. She took off her gloves and tried to remove the stain from her shirt with a wet paper towel. As she did so, she turned around agitatedly and looked at the messy dining tables with dirty plates, cups, and utensils, and the food debris underneath. "Oh my God," she said, "It's a disaster here."
>
> It was around 12:15 pm, the time Miss Anna was expected to help children to go potty. Miss Anna said sharply to Miss Raven and Miss Nia, "Clean up the dishes. Make sure the floor and table are clean!" Then, she walked back a in rush to her classroom, leaving the work to them. Neither of them said a word, but they silently cleaned up the mess, including the work Miss Anna had begun, collecting the dirty plates, dumping the leftovers, and putting the dirty dishes into the dishwashers. They wiped out the leftovers from the table and used a bloom to sweep the floor. The dining table's surface and all the chairs were wiped and disinfected.

Assistant teachers like Miss Anna usually serve as managers who supervise the lower-level childcare workers who conduct cleaning tasks. Teaching aides/helpers are the actual sanitation executors. They function as "janitors" or "housekeepers" to clean and sanitize all tables, chairs, mirrors, toys, trash lids, dispensers, doorknobs, countertops, sinks, fridge handles, cubbies, and floors. Most assistant teachers told me that they didn't expect to work on sanitations. But they sometimes have to share some cleaning jobs if teaching aides/helpers are off or busy.

An assistant teacher, Olivia, who holds a bachelor's degree in ECE complained to me when she was assigned to disinfect the classroom due to a workforce shortage. She felt disrespected. She told me she didn't know how long she could survive in such a poor working environment. While she was receiving basic benefits such as health insurance, dental insurance, an employee discount for childcare services, and a flexible schedule, her paid time off was not available to her because of understaffing. She was most likely earning $12-$15/hour.[21] She told me what she wanted was to work with children, spend time nurturing and teaching children, and help them learn and grow, rather than to work on sanitation and disinfection. She had taken the job to participate in activities such as singing, dancing, reading books, playing trains, balls, cars, building blocks, playhouses, dramatic performance, and doing artwork or gross motor activities. She hated doing these

[21] New Jersey's minimum wage was $8.85/hour at the time, and it became $10/hour in July 2019. The hourly rate for a teaching helper was around $9-$12, the hourly rate for an assistant teacher around $12-$15, and the hourly pay for a lead teacher was about $15-$20.

cleaning tasks, but she couldn't complain about it too much due to the low job security and high replacement in the childcare field. She explained:

> The director can get rid of me tomorrow. She could get somebody who either graduated high school or maybe has an associate's degree, and she can pay them $9-$10 an hour and save money, or does she keep me at the rate that she's giving me and have me complaining all the time?

By contrast, teaching aides considered cleaning, sanitation, and disinfection as part of their regular childcare job. As one teaching aide, Nia, shared with me:

> Just every day, just make everything's sanitized, make sure everything's clean. After you do diaper changes, make sure everything's sanitized. After the kids eat, make sure it's sanitized. After they get up from their naps, you sanitize the mats. … Yep, you sanitize everything because you don't want kids getting sick. Kids get sick; you get sick. That's how it works. Yeah, that's what I learned. It's very easy to get sick when working with children because children have a lot of germs. … You clean it, and then you're supposed to do the bleach and water right after that, and then let it sit for two minutes, but you can't have it when children are around you at that time. So that's why when there are two teachers, it's good because one teacher could be cleaning and the other one can be playing with the kids. And then once the teacher's done cleaning, then she can go and play with the kids and be able to interact with them. But you have to make sure everything's clean too. … When you're doing stuff, you just have to make sure that they [the children] are out of reach of anything. Like the soap and water, you want to make sure the children aren't around you when you're spraying that and everything. You want to make sure everything's sanitized the proper way. You want to make sure you're in ratio. You want to make sure you're following that because you don't want the state coming in and them being like "You're not following ratio" or "You're not sanitizing properly." And then they give the daycare center a fine.

The teaching aide believed that sanitation was essential to the daycare community's health. Daily disinfections not only protect children's health but also teachers'. By conducting proper sanitation, teaching aides provided a clean, healthy, and safe environment for children to grow, play, and learn. None of the teaching aides felt that

such functions were a sign of disrespect. Rather they saw themselves as contributing to community health and making sure the daycare center complied with state regulations.

Children are also part of the hierarchy, but it is difficult to say exactly where they fit. They are not passive dolls, but active participants in daily childcare practices. Sometimes, children are upset or crying, and it is difficult for teachers to ask them to cooperate and complete the tasks. Sometimes, children refused to follow the instructions, and teachers have to hold their hands to finish all the steps. Other times, children may have unexpected accidents. When unexpected accidents happen, one teacher has to take care of it and is occupied while the other two teachers are expected to take care of the rest of the 14 children. Most of the time, teachers need an extra helper (or two additional helpers) to complete the hygiene-related tasks when unexpected accidents happen.

Children actively engaged in daily childcare practices, but they might ignore, reject, or not understand teachers' directions, and therefore disobey them. When a child doesn't follow the instructions, teachers repeat their instructions and guide them to complete the task, such as occurred when the boy played with the used diaper rather than throwing it into the plastic bag. It was clear that such failures of cooperation made teachers feel stressed and impatient. Not only did they impede on-time functioning of the class's schedule, but they required children to be patient while teachers resolved the issue.

From my observations, however, teachers held more power in their interactions with children. If there is a delay in a schedule, teachers may speed up their pace to catch up. One common way to speed up is to serve the children rather than working with them. On the day when Madison's dress got wet, I returned to the bathroom after observing that

Portia was still cleaning, where Mary and Lucy had sped up to complete the toileting before nap time. They were skipping some of the more "educational" steps, performing hygiene routines without engaging the children in their work. Children were no longer throwing the used diapers into the plastic bag by themselves. Mary and Lucy completed the tasks directly to save time. Lucy was helping the children wash their hands while Mary changed the diapers, and she had started washing the hands instead of letting the children wash their own and had started handing them paper towels instead of letting them reach their own.

Another way to keep up with the schedule is to shorten the nonhygiene–related activities. Since hygiene is state-mandated, playtime, circle time, art project time, or other nonhygiene–related activities would be shortened to catch up to the schedule. Thus, even lead teachers might have to compromise the time they gave to activities they considered core to their job as teachers because of hygiene-related activities.

Keeping Children Clean as a Symbol of Being Professional

State regulations may be the source of hygiene practices, but teachers' self-perceptions and notions of what counts as a professional childcare provider and the feedback they received from parents played a role in their focus on hygiene. The transition from daycare workers to hygiene workers reflects teachers' internalization of the state hygiene rules as part of their professional identity and parents' expectation that they keep children clean.

In line with their hierarchical positions, lead teachers, assistant teachers, and teaching aides responded to the social and legal expectations of keeping children clean differently. Lead teachers highlighted their professional identity as "educators" who focus on designing lesson plans, organizing daily learning activities, teaching, coaching junior teachers, managing classrooms, and communicating with parents and administrators, not cleaning. Assistant teachers position themselves as half-educators and half-caregivers. They follow the lead teachers' instructions, help the lead teachers to conduct the lesson plan, facilitate classroom activities, support the lead teachers to manage the classrooms, and might need to accomplish the hygiene-related childcare tasks. Teaching aides consider themselves caregivers who execute the tasks assigned by the teachers and conduct most nonteaching childcaring activities. Most of these tasks are hygiene-related, such as handwashing, wiping noses, changing diapers, washing and disinfecting shared items, disinfecting surfaces, cleaning equipment, sweeping the floor, collecting dishes, and toilet training. The lower-level daycare workers finish all cleaning jobs while the higher-level daycare workers conduct teaching jobs. Different interpretations of hygiene-related childcare tasks daycare workers hold reveal that hygiene regulations and norms are situated in daycare workers' professional identity and hierarchical positions.

At the same time all the daycare teachers saw keeping children clean as a symbol of professionalism, whether they completed the necessary tasks themselves or not. A senior assistant teacher told me she changes children immediately because she

believed that it's her responsibility, even though she objects to being required to clean and disinfect the environment:

> Even during the day when we weren't doing bathroom [duty], if we noticed their pants were getting low or anything, we would take them right to the bathroom because we thought maybe they were wet. We don't want them to be uncomfortable. So, if we notice, just anything strange, we would bring them right in, have them check. … So, you have to look for the signs. Like lowered pants, the facial features. Like, some of them, you'll notice will go in the same spot everyday just to use the bathroom in their diaper. Like, they hide behind something and you notice and then you bring them right into the bathroom and you can stop it [accidents] a lot. … [B]ecause it's not fair to a child to be wet or dirty. … Like, if they soiled their diaper, it's not fair to them to be in it all day. So, we tried to, even though it was every, like, two hours, we were changing them. We still tried to say, in between, if there was anything. I wouldn't want my child to be in a wet diaper all day. Like, I feel like they would be uncomfortable.

Similarly, a lead teacher, Lydia, shared:

> No messy children in my classroom. I make sure [that] their faces and hands are clean, their shirts are clean, even their hair. I set up a salon station to do their hair after the nap time. All the girls are so excited to get their hair done. Every child in my classroom is clean and shiny, like a princess/prince.

A teaching aide, Tia, shared similar experiences:

> You have to change the diapers because you don't want a child sitting in their poop. If they went number one or two, you want to make sure the child's clean. Especially when the parents come, you don't want them to be like, "Oh, why is my child dirty? Why is my child not changed?" It looks unprofessional. And it's also a safety concern for the children.

These teachers feel that keeping children clean is a core skill of childcare professionals. The cleanliness of the children showed that they are responsible and good teachers who take good care of their children. They would most likely be surprised that in France daycare teachers feel no such obligation (Leroy 2017).

Cleanliness and hygiene also serve a latent purpose for parents who want to evaluate the quality of the daycare and teachers. Since a child's cleanliness is an easily observable criterion, daycare teachers always wipe children's faces, wash their hands, change their diapers, and make sure children are presentable before parents arrive. Thus, parents and daycare teachers together have established a positive relationship between children's cleanliness (clean face, hands, diaper) and childcare quality. Daycare centers and teachers also pay attention to the cleanliness of children's clothes due to parental concerns. As an assistant teacher, Sue, shared:

> Like, we wanted them to have clean, presentable clothes. That's how they came to school. We want to send them home clean, and we would just put [soiled or wet clothes] in a, like, a ShopRite bag and tie it to their backpack, and then we would tell their parents that they spilled whatever they spilled. … You don't want to send the kids home with dirty clothes. Like, if they have spaghetti sauce all over them. I just don't think I can send kids home with dirty clothes. If you send the kid home with spaghetti sauce all over them, some of them will play with the sauce instead of—like, if they have something [food debris] on their shirt, some kids will play with it at three years old…

> Depending on the parent, but some of them, if they send their kid in with completely clean clothes, and you're sending them home looking like a mess, then they're going to think, what are these teachers doing? But then there are other parents who, if they send them in with clean clothes and they come home looking at a mess, they say, Oh, my kid had fun in school today. So, it's hard to say. It depends on the parent, depends on the situation. But some of them will be upset that their kid is dirty. Others will be like, Oh, they must have had fun.

As the assistant teacher explained, some parents are okay with messy children and clothes while some are not. Different daycare centers also have different approaches to responding to parental concerns about child hygiene and cleanliness. For example, at Loving Garden, the directors and lead teachers communicate with parents about their philosophy of learning by playing and "educating" parents who are upset to see that their

children are messy on the importance of messy play to their children's development. On the other hand, at Happy Birds, directors asked teachers to meet parents' standards for child cleanliness and hygiene, and make children more presentable to show the high quality of childcare they received in the center. Teachers in Happy Birds thus make a particular effort to clean faces, washing hands, ensure shirts are not stained, brush hair, button up buttons, and tuck things in right before parents are expected if they know parents are not comfortable with messy children, although they are more relaxed with parents who are more relaxed. Loving Garden spends more time explaining their pedagogical philosophy to parents and educating parents about the benefits of their sensory curriculums, and thus train parents to be more tolerant of messiness. I will discuss more on the differences between the two daycare centers in the next chapter.

Chapter 3

Passing Down the "Proper" and "Good" Hygiene Norms and the Making of Hygienic Children

As discussed in chapter 2, daycare centers and teachers are hygiene institutions and workers, respectively, that are under state public health surveillance to ensure a hygienic environment, subjects, and sanitized childcare practices. In this chapter, I argue that daycare centers and teachers are also active socialization institutions and agents that pass down "proper" and "good" hygiene norms and produce hygienic children. Children from different households may be socialized by their parents and hold different hygiene norms, ideas, and codes. Their parents may have different hygiene standards, use various cleaning items, and have multiple ways to achieve cleanliness. However, under the socialization of daycare teachers, children are learning the hygiene norms and becoming hygienic children based on the state hygiene rules, standards, and regulation.

Boundaries of hygienic and unhygienic are not fixed but negotiable. They depend on the participants who engage in a particular interaction. However, my observations suggested that most daycare teachers expected and used state hygiene regulations and standards to determine this line. In childcare centers, all children must conform to state hygiene rules, follow the state hygiene standards, and carry out the state-regulated hygiene procedures to achieve cleanliness. The state hygiene rules and regulations aim to create an American normality, a standardized way to use the body hygienically, including washing hands, wiping noses, covering mouth and nose when coughing and sneezing, wearing shoes inside, and eating in a hygienic manner.

Socialization and education on hygiene and cleanliness in daycare centers are crucial learning processes through which children understand the standards, norms, attitudes, rules, and codes of conduct associated with hygiene and cleanliness in American society. In this chapter, I focus on the conversations and interactions among teachers and children to examine, first, how state regulation understands and frames "good and proper hygiene for children"; second, how teachers pass down the "proper" and "good" hygiene norms to children; and finally, how teachers construct children's everyday learning experiences and produce hygienic bodies' via socialization and education. I argue that the state hygiene rules, standards, and regulations that define the official notions of proper and good child hygiene emerged in connection with notions of being a responsible citizen, and successful public health education emerged with the cultivation of American national identity.

What Do Daycare Teachers Teach? State Recommendations and Standards

Unlike most countries, the United States doesn't have national standards or requirements[22] as to the curricula or programs for early childhood education and care

[22] One guideline shared by many states is The Head Start Early Learning Outcomes Framework (ELOF), which Project Head Start offers to help guide early childhood educators and caregivers to design their curricula and teaching. ELOF includes five domains: approaches to learning; social emotional development; language and literacy; cognition; and perceptual, motor, and physical development. Project Head Start was initiated by the federal government in 1965 and reauthorized in 2007. It aims to offer intervention services to children who are at-risk (for example, because they are low-income and non-White) for better school readiness and academic achievements.

(ECEC) institutions (such as daycare centers, preschools, or kindergartens). Each state offers guidelines and recommendations for their ECEC professionals to follow and adopt.

In New Jersey, the state government recommends that daycare centers foster development in the following five domains in their design of daily activities and curricula: social and emotional development,[23] approaches to learning,[24] language development and communication,[25] cognitive development,[26] and physical and motor development[27] (New Jersey Council for Young Children 2013). None mentions cleanliness or hygiene education (New Jersey Council for Young Children 2013).

The New Jersey State Department of Education (NJDOE) does touch, though barely, on hygiene. It provides 10 areas for a high-quality curriculum ECEC curriculum, with from one to five standards for each area and offers concrete learning activities and example interactions to guide ECEC professionals to design appropriate curricula to achieve the expected learning outcomes. None are required. The 10 areas are:

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[23] Including: trust and emotional security, self-awareness, self-regulation, and relationships with peers and adults.

[24] Including: curiosity, persistence, creativity, and initiative.

[25] Including: listening and understanding, communicating and speaking, and emergent and emerging literacy.

[26] Including: exploration and discovery, memory, problem solving, imitation, and symbolic play.

[27] Including: gross motor development, fine motor development, and physical health and well-being (moves body, arms, and legs with coordination; demonstrates large muscle balance, stability, control and coordination; develops increasing ability to change positions and move body from place to place, and moves body with purpose to achieve goal).

social/emotional development;[28] visual and performing arts;[29] health, safety, and physical education;[30] mathematics;[31] science;[32] social studies, family, and life skills;[33] world languages;[34] technology;[35] approaches to learning;[36] and English language arts[37] (New

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[28] Standard 0.1: Children demonstrate self-confidence; 0.2: Children demonstrate self-direction; 0.3: Children identify and express feelings; 0.4: Children exhibit positive interactions with other children and adults; 0.5: Children exhibit pro-social behaviors.

[29] Standard 1.1: Children express themselves through and develop an appreciation of creative movement and dance; 1.2: Children express themselves through and develop an appreciation of music; 1.3: Children express themselves through and develop an appreciation of dramatic play and storytelling; 1.4: Children express themselves through and develop an appreciation of the visual arts (e.g., painting, sculpting, and drawing).

[30] Standard 2.1: Children develop self-help and personal hygiene skills; 2.2: Children begin to develop the knowledge and skills necessary to make nutritious food choices; 2.3: Children begin to develop an awareness of potential hazards in their environment; 2.4: Children develop competence and confidence in activities that require gross- and fine-motor skills.

[31] Standard 4.1: Children begin to demonstrate an understanding of numbers and counting; 4.2: Children demonstrate an initial understanding of numerical operations; 4.3: Children begin to conceptualize measurable attributes of objects and how to measure them; 4.4: Children develop spatial and geometric sense.

[32] Standard 5.1: Children develop inquiry skills; 5.2: Children observe and investigate matter and energy; 5.3: Children observe and investigate living things; 5.4: Children observe and investigate the Earth; 5.5: Children gain experience in using technology.

[33] Standard 6.1: Children identify unique characteristics of themselves, their families, and others; 6.2: Children become contributing members of the classroom community; 6.3: Children demonstrate knowledge of neighborhood and community; 6.4: Children demonstrate awareness of the cultures within their classroom and community.

[34] Standard 7.1: Children know that people use different languages (including sign language) to communicate, and will express simple greetings, words, and phrases in a language other than their own.

[35] Standard 8.1: Navigate simple on-screen menus; 8.2: Use electronic devices independently; 8.3: Begin to use electronic devices to communicate; 8.4: Use common technology vocabulary; 8.5: Begin to use electronic devices to gain information.

[36] Standard 9.1: Children demonstrate initiative, engagement, and persistence; 9.2 Children show creativity and imagination; 9.3 Children identify and solve problems; 9.4 Children apply what they have learned to new situations.

[37] With prompting and support, ask and answer key elements in a familiar story or poem; With prompting and support, retell familiar stories or poems; With prompting and support, identify characters, settings, and major events in a familiar story; With prompting and support, ask and answer questions about unfamiliar words in a story or poem read aloud; Recognize common types of literature (storybooks and poetry books); With prompting and support, identify the role of author and illustrator in telling the story; With prompting and support, using a familiar storybook, tell how the illustrations support the story; With prompting and

Jersey State Department of Education 2014b). Among these, only Standard 2.1, health, safety, and physical education, references hygiene, suggesting that children should "develop self-help and personal hygiene skills" (NJDOE 2014b: 33). Thus, hygiene is listed in only one of more than 40 standards teachers are to apply.

The NJDOE suggests the preschool teaching and learning standards and provides efficient teaching practices for teachers to follow. It does include five standards that reference hygiene. It states (NJDOE 2014b: 33):

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support, using a familiar storybook, tell how adventures and experiences of characters are alike and how they are different; Actively participate in read, aloud experiences using age appropriate literature in individual, small and large groups; With prompting and support, ask and answer questions about key elements in a familiar text; With prompting and support, recall important facts from a familiar text; With prompting and support, make a connection between pieces of essential information in a familiar text; With prompting and support, ask and answer questions about unfamiliar words in informational text; Identify the front and back cover of a book; With prompting and support, identify the role of author and illustrator in presenting ideas in informational text; With prompting and support, tell how the illustrations support the text (information or topic) in informational text; Actively participate in read aloud experiences using age appropriate information books individually and in small and large groups; Begin to demonstrate understanding of basic features of print; Demonstrate understanding of spoken words and begin to understand syllables and sounds (phonemes); Demonstrate an understanding of beginning phonics and word skills; Begin to engage in a variety of texts with purpose and understanding; Use a combination of drawings, dictation, scribble writing, letter-strings, or invented spelling to share a preference or opinion during play or other activities; Use a combination of drawings, dictation, scribble writing, letter-strings, or invented spelling to share information during play or other activities; With guidance and support, share a drawing with dictation, scribble-writing, letter-strings, or invented spelling to describe an event, real or imagined; With guidance and support, use digital tools to express ideas (e.g., taking a picture of a block structure to document or express ideas, etc.); With guidance and support, participate in shared research and shared writing projects; With guidance and support, recall information from experience or a familiar topic to answer a question; Participate in conversations and interactions with peers and adults individually and in small and large groups; Ask and answer questions about a text or other information read aloud or presented orally; Ask and answer questions to seek help, get information, or follow directions; Begin to describe familiar people, places, things, and events, and sometimes with detail; Use drawings or visual displays to add to descriptions to provide additional detail; With guidance and support, speak audibly and express thoughts, feelings, and ideas; Begin to understand the conventions of standard English grammar when speaking during interactions and activities; Begin to understand the simple conventions of standard English grammar during reading and writing experiences throughout the day; Begin to determine the meaning of new words and phrases introduced through preschool reading and content; With guidance and support, explore word relationships; Use words and phrases acquired through conversations, activities and read aloud.

Effective preschool teachers:

- Explain how germs are spread and instruct children in techniques to limit the spread of infection (e.g., there are germs on our drinking glasses, which is why we don't share drinks).

- Model appropriate hand-washing and supervise children's hand-washing (e.g., before and after meals, after toileting, after blowing their noses, after messy play).

- Promote the habits of regular tooth-brushing and bathing.

- Provide opportunities for children to pour and serve themselves and others, using a variety of appropriately sized utensils, during meal and snack time.

- Follow consistent routines regarding washing hands and utensils before and after preparing food and eating.

The state preschool teaching and learning standards further itemize the expected hygiene norms and proper hygiene habits for young children as follows:

Preschool Learning Outcomes

Children will:

2.1.1 Develop an awareness of healthy habits (e.g., use clean tissues, wash hands, handle food hygienically, brush teeth, and dress appropriately for the weather).

2.1.2 Demonstrate emerging self-help skills (e.g., developing independence when pouring, serving, and using utensils and when dressing and brushing teeth).

Thus, personal hygiene are explicit learning goals, if not ones that receive a great deal of emphasis in state regulations for curricula. As with my observations about the time that teachers spend on cleaning and hygiene, I found that cleanliness dominates teachers time and that it had significant public health and cultural meaning. See the detailed discussion in the next session.

Education and Socialization of Clean and Dirty in the Daycare Centers

Teachers Are Crucial Socialization and Teaching Agents

As a crucial socialization and teaching institution, daycare centers' explicit goal is to prepare children for school readiness and academic achievements (Brown and Barry 2019), and their latent goal is to transmit cultural values and norms to the next generation and make them functional members of society (Test 2006), thereby decreasing children's future likelihood of criminality, delinquency, drug use, and other unhealthy or antisocial behaviors (Kamerman and Gatenio-Gabel 2007). Based on my interviews of parents, when daycare centers describe their curriculum to parents, they emphasize that they will provide a nurturing, loving, and safe environment to enhance children's social, emotional, physical, and language development.

Daycare teachers identify themselves as children's first teachers who teach them the proper social norms and basic knowledge to behave appropriately in our society. Loving Garden's director, Judith, summarized a daycare teacher's responsibility:

> It's my job to teach them how to behave. They've only been in this world for two or three years. They don't know anything about how to behave. They're so egocentric they only want what I [meaning they] want. That's our job to teach them. That's why you're called a teacher, because you have to teach them how to behave.

Among the all kinds of norms, skills, and knowledge teachers wish to teach children, socialization in hygiene and cleanliness are essential but usually invisible or taken for granted by parents or teachers. Because keeping a child clean is traditionally considered an unspoken, common-sense need, teachers do not mention it to parents or write it on the

daily curriculum or pedagogy. Thus, hygiene education and socialization become part of the hidden curriculum in most daycare centers.

But in my two-year field observation, I observed teachers inspecting, instructing, and helping children stay clean; changing children's diapers, training children to go potty, and guiding children to wash their hands; instructing them to use tissues to wipe their noses properly and to cover their nose or mouth when sneezing; and teaching them good table manners. Teachers deliver the social norms, rules, and codes associated with hygiene and cleanliness to children through conversations and interactions. Children learn the difference between hygienic and unhygienic, the acceptable and not acceptable behaviors related to hygiene, and appropriate and proper ways of dealing with dirt.

Take the diaper change as an example. The teacher tells children that a used diaper is "dirty," and they should put it in a plastic bag instead of playing with it. Thus, teachers enact the boundary of clean and dirty. The invisible line of clean and dirty emerges and becomes cognitively visible during their conversation. By participating in the conversation, a child receives the message that a used diaper is unclean, absorbs a social norm about how it should be dealt with, and learns that an appropriate way to deal with dirt is to put it into a plastic bag.

Children Are Active Participants and Learners

As discussed in chapter 2, children are not passive dolls but active participants, not only in negotiation of the meaning of clean and dirty but in hygiene socialization as well.

Children's active engagements with teachers on personal hygiene tasks make them active participants in the socialization process on the norms, codes, and meanings of clean and dirty. They may follow the instructions and be socialized successfully or reject the directions and challenge the hygiene socialization or teaching. Children may violate the social norm by playing with a used diaper, in such cases, a teacher may repeat her instructions and ask a child to follow the instruction again. Children who do not cooperate, nevertheless, may still learn a rule without complying with it.

Teachers I observed and interviewed give preschoolers more responsibility (and freedom) to manage their personal cleanliness. For example, if a child 3-4 years old stained their clothes, the teacher might ask them, "Is it dirty?" Depending on the child's answer they might not change their clothes. Thus, the degree of dirtiness is mutually constructed and negotiated through such a conversation and interaction. Although Leroy (2017) found in France that children did not have the responsibility of their own personal cleanliness and hygiene, teachers did show a sensitivity to children's growing understanding of their own needs.

However, not every kind of dirt is negotiable. Dirt related to body discharges, especially urine and stool, have a rigid and wide boundary. However, dirt related to other substances, such as earth, dust, and food, was more negotiable, and daily teacher-children interactions reflected this distinction. Negotiations generally involved contact with the latter, not the former.

Time and Temporal Socialization

Daycare teachers instruct children about clean and unclean temporality, including the temporal meaning of cleanliness and dirt and temporal characteristics of hygiene tasks (Zerubavel 1976). Discrete temporal chunks of the daily schedule not only split time and designate it to different activities but also draw a fine line to signal a mental difference between clean and dirty (Zerubavel 1993a). For example, there is a distinction between regular and handwashing time in all daycare centers. During regular time, children enjoy learning, playing, or eating activities without worrying about being dirty or messy. But at handwashing time children are taught to take care of all the dirtiness and messiness. Regular time is unmarked and assumed dirty, while handwashing time is marked to remove the dirt and achieve cleanliness. Whether or not children get dirty during regular time, when handwashing time comes, everyone's hands are marked as dirty and need to be washed. That is, the clean/dirty boundary is socially constructed.

The differentiation between regular time and diaper/toileting time also demonstrates the social construction of the clean/dirty boundary. For a child who is not potty trained, the regular time is understood as a time when their bottom may be dirty with body fluid. In contrast, diaper time is when children learn it is time to ensure that they are wearing a clean diaper.[38] Children who are potty training are instructed to sit on the toilet, even if

[38] During the diaper time, children would be checked by teachers to see if their diapers are wet. If a child's diaper is wet, s/he would get changed, wiped up, and have a clean diaper. If a child's diaper is dry, it would be kept or changed depending on the teacher's dirt tolerance since different daycare centers have different policies. Some daycare centers consider a used diaper as dirty and would change a child's used diaper even it is dry to ensure that a child gets a clean diaper every 2 hours. Other centers keep the same used diaper when the diaper is dry and change it at the next diaper change time only if it gets wet to save money and diapers for economic and environmental reasons.

they feel no need to urinate, to decrease wet pants accidents. Thus ensuring cleanliness is part of the work of diaper/toileting time.

The third type of timeslot designed for cleaning, cleanup time, delivers a more abstract idea of "dirt" as "matter out of place" (Douglas 2003 [1966]: 2), which is associated with the spatial order (see further discussion in the next section). Cleanup time comes at the end of free time. Temporally, it symbolizes the collective social order. Children may enjoy their activities and don't want free playtime to stop. Their personal time (a student wants to continue the free playtime) is conflicted with the collective time (the scheduled activity on the timetable). However, during cleanup time the whole classroom moves forward together to the next timeslot. Children are expected to end their activity by "cleaning up," putting things back in their designated, and often labeled, place. The cleanup timeslot signals the temporal order as well as achieving the spatial order collectively.

Table 6 shows the timetable for a daycare center. Some timeslots are unmarked, while others are marked as hygiene-related time, designated for the removal of dirt to achieve cleanliness. By differentiating the regular time from the hygiene-related time, daycare teachers create the temporal meanings of dirtiness and construct a temporal social order that they then pass down to children. These timeslots send clear temporal messages about cleanliness to children: It's okay to get your hands, faces, and bodies dirty during the regular time, but you need to clean up and ensure cleanliness during the cleanup time (either handwashing, diaper change, or cleanup time). The distinction of timeslots draws

a line between two kinds of bodies. The former is a body getting dirty, wet, and waiting to be cleaned, while the latter is a cleaned-up, dry, and hygienic body.

Inspired by Zerubavel (1976), I argue that children receive socialization messages about temporal features (timing, sequence, duration, and tempo) of hygiene activity. For example, the timing of handwashing is socially determined rather than biologically determined; different societies, cultures, and communities have different norms on the timing and sequences to achieve hand hygiene. Indeed, Loving Garden and Happy Birds have different rules regarding the appropriate timing for handwashing. At Loving Garden, children learn that the proper timing for handwashing is right after entering the classrooms from outside (including upon arrival to the classroom, returning from outdoor play, and reentering classroom from being outside), before eating, after toileting/diaper change, and after art/sensory/sandbox/water table activities. However, at Happy Birds, children are not asked to wash their hands upon arrival to the classroom or right after reentering the classroom from outside, only right after outdoor play, before eating, and after toileting/diaper change.

Teachers instruct children proper timing of handwashing and toileting in the daily schedule. Children build up good personal hygiene after a few weeks. As Lydia described:

> After about two weeks of reminding and repeating, every child can do it. Even they don't understand the concept of time. They don't know what time is. But they know they need to wash their hands upon arrival. It's a routine. When you enter the classroom, you put your backpack and coat on your cubby, and then you go to the sink to wash your hands. So, they all know it. It's an unwritten rule they learn. … Similarly, they realize that they need to clean up and wash their hands after they

> finish their food. Or when they wake up from nap time, they need to go potty and wash their hands. It's all about building a habit and routine [of personal hygiene].

Teachers socialized children in the rules of the proper timing of personal hygiene. Even though none of the children understand the concept of timing, they can wash their hands upon arrival, after eating, after toileting.

On the other hand, regarding the proper sequences of handwashing, there is more consensus across different societies, cultures, and communities. In New Jersey, various institutions suggested similar steps for handwashing. For example, New Jersey's Department of Health (NJDOH) recommends that people follow six steps to wash their hands: "1) Wet hands with warm water. 2) Use enough soap to produce lather. 3) Rub hands together for 15-20 seconds. 4) Wash hands thoroughly under running water to remove the soap. 5) Pat hands dry with a paper towel. 6) Use a towel to turn off the tap.[39]" NJDOE, Division of Early Childhood Education (DECE) (2014) suggests similar steps: "thorough handwashing with soap for at least 20 seconds, using warm, running water (no less than 60 degrees F and no more than 120 degrees F) removes germs and allows them to be rinsed away. Clean, disposable paper towels should be available for drying hands and turning off faucet handle." The same suggestions on the temporal sequences of handwashing show a collective social understanding of the proper temporal order on hand hygiene.

[39] The state of New Jersey, Department of Health, https://nj.gov/health/cd/topics/handwashing.shtml. Visited on 5/26/2021

Table 6: Schedule for 2- to 3-year-old classroom at Loving Garden

Time	**Scheduled Activities**	**Actual Happened Childcare Activities**	**Tasks Related to Hygiene and Cleanliness**	**Estimated Time to Complete the Hygiene-Related Tasks**
7:30-8:30	Arrival, Free Play (Books, Puzzles, Kitchen Toys)	Handwashing Free Play	Washing Hands (soap, water, and paper towel) *Teachers help children to wash their hands after entering the classroom	20 mins
8:30-9:00	Breakfast	Handwashing Food Serving Cleaning, Sanitizing, and Disinfecting Food Log and Report	Washing Hands (soap, water, and paper towel) Removing Dirt (food debris and leftovers)	30 mins

			Cleaning up the meals (dirty dishes, cups, and utensil) Cleaning, Sanitizing, and Disinfecting Tables and Surfaces (soap water spray, bleach spray, and paper towel)	
9:00-9:20	Circle Time	Handwashing Diaper Change/ Toileting Sanitizing and Disinfecting	Removing Dirt (body fluids and wet diapers) Cleaning Bottom (disposable gloves and wipes) Sanitizing and Disinfecting the Changing Table and Surface (soap water spray, bleach	20 mins

			spray, and paper towel) Washing Hands (soap, water, and paper towel)	
9:20-9:30		Circle Time		
9:30-10:00	Outdoor Play	Dressing Up Outdoor Play		
10:00-10:30		Handwashing Diaper Change/ Toileting Sanitizing and Disinfecting	Removing Dirt (body fluids and wet diapers) Cleaning Bottom (disposable gloves and wipes) Sanitizing and Disinfecting the Changing Table and Surface (soap water spray, bleach	30 mins

			spray, and paper towel) Washing Hands (soap, water, and paper towel)	
10:30-11:00	Morning Activity (Cooking, Science, Art works, circle time, reading, singing, puzzles, dramatic play, cooking)	Morning Activity	*Wearing painting mocks	
11:00-11:30		Clean Up Handwashing	Tidy up (Sort things into the order) Washing Hands (soap, water, and paper towel) *Handwashing after activities if needed	20 mins
11:30-11:45	Lunch	Handwashing		40 mins

11:45- 12:20		Food Serving Cleaning and Disinfection Food Log and Report	Removing Dirt (food debris and leftovers) Cleaning up after the Meals (dirty dishes, cups, and utensil) Cleaning and Disinfecting Tables and Surfaces (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	
12:20- 12:50	Transition Time (Clean up for Nap time)	Handwashing Diaper Change/ Toileting	Removing Dirt (body fluids and wet diapers)	30 mins

		Sanitizing and Disinfecting	Cleaning Bottom (disposable gloves and wipes) Sanitizing and Disinfecting the Changing Table and Surface (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	
12:50-14:20	Nap Time (quiet time, reading or drawing)	Nap Time Sanitizing and Disinfecting Dining Area Sanitating and Disinfecting classroom environment	Cleaning and Disinfecting Dining Tables and Area (soap water spray, bleach spray, and paper towel) Sanitizing and Disinfecting of	40 mins

			windows, cubbies, door knobs, countertops, and common area (soap water spray, bleach spray, and paper towel)	
14:20-14:50		Diaper Change/ Toileting Handwashing (as children wake up) Cleaning and Disinfection	Removing Dirt (body fluids) Cleaning Bottom (wipes and plastic bags) Washing Hands (soap, water, and paper towel)	30 mins
14:50-15:20	Afternoon Activity (Story time / Dance)	Afternoon Activity	Washing Hands (soap, water, and paper towel) *Handwashing after art projects if needed	

15:20- 15:50	Afternoon Snack	Handwashing Serving Food Sanitating and Disinfecting Food Log and Report	Removing Dirt (food debris and leftovers) Cleaning up after the Snacks (dirty dishes and cups) Cleaning and Disinfecting Dining Tables and Area (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	30 mins
15:50- 16:20	Outside Play/ Bubbles/ Roll Around Balls	Dressing Up/ Outdoor Play		
16:20- 16:50		Handwashing Diaper Change/ Toileting	Removing Dirt (body fluids and wet diapers)	30 mins

		Sanitating and Disinfecting	Cleaning Bottom (disposable gloves and wipes) Sanitating and Disinfecting Changing Tables and Surfaces (soap water spray, bleach spray, and paper towel) Washing Hands (soap, water, and paper towel)	
17:00-18:00	Free Play/ Pick up	Free Play / Pick up		

Given NJDOH recommends people wash their hands for 15-20 seconds and the NJDOE, DECE recommends at least 20 seconds, clearly the duration of time is socially constructed. In daily childcare practices, teachers never set up a timer for 20 seconds to ensure they clean for the suggested period. Instead, teachers find symbolic ways to adequately meet the social expectation by singing a simple song twice or counting from 1 to 20.

Even the temporal spacing/frequency of hygiene activity has social meaning. For example, parents expect their children to get their diaper changed (or go potty) every two hours and expect at least four times a day for an eight-hour stay in a daycare center. Doing so less frequently would make parents feel teachers are neglectful or lazy, while the intense rhythm (five times or more) may be interpreted as children receiving good care.

American parents may surprise to know that in France, daycare teachers do not wipe toddlers' bottoms. Instead, French daycare teachers expect children older than 2 years old "to carry out this task themselves … even though this task is very difficult, if not impossible, for children in this age group" (Leroy 2017: 61).

Space and Spatial Socialization

Much like the schedule assigns barriers to continuous time, daycare centers assign barriers to continuous space (Zerubavel 1993a). Teachers actively lump and split toys, learning materials, and art supplies into different mental and spatial categories.

Depending on the function, types, and kinds of activities, various objects are assigned to a different location (labeled as activity centers). For example, dolls, dresses, and toys related to pretend play are classified as dramatic play. These items are put into containers placed in the "dramatic play center." On the other hand, blocks of different sizes, colors, and shapes are items for block play and put in the "blocks center." The demarcation creates discrete islands of meanings from reality (Zerubavel 1996). All classifications are associated with the "active construction of both similarity (through lumping) and difference (through splitting)" (Zerubavel 1996: 422). The separation of space sets the expectation of the different types of activity and objects in each area. Each classroom may create different classification systems to sort toys and learning materials, depending on the collective lumping and splitting teachers construct socially.

A cleanup time is related to the notions that "dirt" equals "matter out of place" (Douglas 2003 [1966]: 2). What is perceived as dirt is always associated with a wrong place in the social order (Douglas 1966). Each child is expected to return toys, cars, books, puzzles, blocks, and dolls back to their labeled containers and locations during cleanup. Putting the objects that are out of place back into their assigned areas makes it clean and resumes the social order. It sends a message to children about the mental distinction between messiness, in which objects are not in place, and clean, in which objects are sorted in a specific order. The cleanup process represents restoring a particular spatial arrangement, which is based on the classification of objects. When an item is out of place, such as a block left in the dramatic center, it is considered "messy." To participate in the cleanup, first, children need to learn the classification system created by classroom teachers. Only when children share the same islands of meaning as their

teachers can they recognize the mental similarity and difference of objects constructed socially by the community (i.e., people in a specific classroom) and can return the item to the assigned location.

In the 4-year-old classroom in Loving Garden, space is divided into eight activity centers: sensory, science, library, circle time, blocks, dramatic play, art, handcraft, and puzzles. If a child brings puzzles or dolls into the blocks area, teachers describe this as the "wrong place," and ask the child to return them to their assigned areas. Similarly, watercolor paints are only allowed in the art center. Children are expected to paint in the art center, not in the block center or in the book center. Children are instructed to paint on the designated area: on the paper, not on their bodies, tables, or walls. Violating this rule is dirty. The mental fine line splits the paper from the rest and lumps the wall, floor, table surface, and body together.

My observations suggest that most children under 4 years old haven't established a mental spatial boundary of designated activities and items. They frequently violated the divisions between the areas and needed teachers' help to sort things out when cleaning up. At the same time, none of children bring toys from classroom to bathroom or dining room. Children know that toys do not belong in the bathroom or the dining space.

Four-year-olds were more socialized to ideas of "clean and dirty" within spatial contexts than younger children (1- to 3-year-olds). They know that cleaning up means to tidy up and put toys back to the assigned places (boxes, cubbies, or containers). Older children are also more tuned to the norms of cleanliness than younger children. The following incident illustrates this:

> It's afternoon free playtime. Three 4-year-old girls approached the sand table to make sand pies. They pretended that they were having a tea party with a different flavor of sand pies. Accidently, two girls dropped the sand pies out of the sand table. "Oops … you spilled sand on the floor," a girl said. "Oops … it's messy," another girl said and ran away. "We have to clean it up," the third girl told the first girl. Then, two girls worked together to remove the sand from the floor. A teacher walked by, saw it, praised them: good job, thank you very much for sweeping that out. Do you want to try some art crafts?

The norm is that sand should stay inside the sand table. Once the sand is spilled out of the sand table, it is considered dirty. As shown in the fieldnote, three 4-year-old girls noticed that they violated norms. They immediately knew they were making a mess and something was wrong. Furthermore, they also knew that they were expected to clean up. Before teachers even noticed and asked them to clean it up, the girls had swept the floor and removed sand off of the floor. The 4-year-old girls well understood the notions that clean is "social ordered" and dirt is "out of place." By contrast when younger children spilled the sand out of the sand table, they didn't realize that they had broken the rule or were making a mess. Instead, they were happy and kept pouring sand out of the sand table because they hadn't been socialized in notions of cleanliness or dirt out of place.

Furthermore, it seems that boys have a relatively higher tolerance for dirt or didn't realize that spilling sand out of the sand table was dirty. As a similar scene happened later:

> Five minutes later, two 4-year-old boys were building sandcastles at the sand table. They were busy digging in the sand to make little hills and building sandcastles with their hands. Then they crushed the sandcastles they had created a couple of minutes earlier. They accidentally spilled a bunch of sand out of the sand table. One boy said: oops. However, neither of the two boys seemed to be bothered. They kept digging, building, and crushing. About 10 minutes later, they were done, left the sand table, and walked to the block center.

Two 4-year-old boys may not consider that they were making a mess nor violating the rules. Therefore, they didn't clean it up and ran away. The fact that the boys do not clean up and the girls do may suggest that girls are more socialized to notice the ideas of dirtiness and cleanliness than boys. It may be associated with the interactions they received from daycare teachers. I observed that daycare teachers interacted with preschool girls and boys differently, which might make girls more attuned to cleanliness. As an assistant teacher, Michelle shared with me her way of reminding girls to keep their clothes clean when eating:

> When they [preschool girls] are making a mess, I would say: where is my pretty little princess? You are not my pretty little princess because you are making a mess. So, they don't want to make a mess because they want to be pretty little princesses. … Or when they were eating, they might drop or spill food on themselves and get their shirt dirty, I will point their dirty shirts and say: where is my pretty little princess? You are not my pretty little princess because your shirt is dirty, and I am clean. Therefore, they learn to keep their clothes clean when eating because they want to be a pretty little princess.

Michelle is not the only one who uses "princess" when interacting with preschool girls. From my field observations, many teachers in Happy Birds also use "princess" when interacting with little girls. However, none of them uses "prince" with preschool boys. Michelle and other teachers are (un)consciously socializing little girls with the ideas that cleanliness is equal to decency as the pretty little princess. While preschool girls learned that they need to be clean to be praised as pretty little princesses, preschool boys didn't receive similar interactions that cleanliness equals a prince. Through the gendered interaction on dirt tolerance, girls may have more specific understanding of the links between cleanliness and decency while boys may only have general or vague understandings.

The Production of American Hygienic Children

In daycare centers, teachers send messages about American standards, norms, attitudes, rules, and codes of conduct associated with hygiene and cleanliness during their interactions with children. Specifically, to produce a hygienic American child, teachers marked the following dominant hygiene ideas and modes of body usage: using the body in a hygienic way; developing good hygiene habits including hand hygiene and respiratory hygiene; wearing shoes in the room, using good table manners, and becoming American hygienic children.

Using the Body in a Hygienic Way

The hygienic ways of body usage draw fine lines between clean and dirty about appropriate physical body contacts. In daycare centers, children are expected to use particular parts of their bodies to touch particular objects (floor/toilet/equipment) in a specific space and activity. For example, in the hallways, children are expected to walk with their feet, not crawl on their hands and knees. In the restrooms, children are asked to sit on the toilet with their bottoms, not touch the toilet or toilet water with their hands. In the classrooms, there is a conventional way to use the body in each space. It is acceptable to kneel, lie, or roll over on the floor to play blocks in the block area. However, if a child kneels or lies on the dining area floor, it is considered dirty and not acceptable. In the

dining area, children are expected to sit down on the chairs with their bottoms, not to sit down on the floor or lie down on the floor.

When children are in the outdoor play area, they are exposed to the natural environment. Muddy puddles, soil, flowers, trees, bushes, mud, dust, animal poop, rocks, leaves, insects, sticks, and sand are common elements they might touch, pick up, and play with. Teachers may give detailed instructions and highlight specific body parts. For example, do not play with mud (with your hands or feet); do not splash water (with your hands or feet); do not eat leaves, sticks, or rocks (with your mouth); do not crawl/kneel on the muddy ground (with your knees).

Different daycare centers may have different policies and rules about body usage, reflecting their pedagogical philosophies and priorities regarding development, health, and play. The director of Happy Birds values hygiene and cleanliness as a first priority. She emphasized to me that all staff are well trained in hygienic childcare practices and use daily disinfections to kill germs and keep the environment well sanitized. My own observations suggest that her management had an impact: most teachers in Happy Birds follow the state hygiene rule that requires brand new disposable gloves for every single diaper change.[40] Happy Birds has installed grass-like artificial turf for all outdoor

[40] This is expensive. For example, if all teachers use a new pair of disposable gloves for every diaper change, one diaper change time in one classroom will use 12-18 pairs of gloves (24-36 gloves), a classroom will use 1.2-1.8 boxes (100 gloves per box) a day because teachers need to change every child five times (24-36*5=120-180 gloves) a day. Three classrooms (1-, 2-, and 3-year-old) in Happy Birds may still need teachers' help with diaper change, and they use 4-6 boxes per day, 20-30 boxes per week. The center also spends a lot of money on paper towels, disinfecting wipes, bleach, and disinfectants to follow the state hygiene rules. <SOME OF THIS INFO IS GIVEN IN FT 17 AND 18.

playground surfaces as they consider it more hygienic than soil and grass. An outside cleaning company deep cleans the play equipment daily.

Teachers who work in Happy Birds are trained to be more sensitive to dirty and appropriate body usage than teachers at Loving Garden. Happy Birds' teachers have a higher cleanliness standard and a lower dirt tolerance, meaning a narrower interpretation of cleanliness and a broader range of dirtiness. Happy Birds' teachers are more likely to intervene in children's outdoor play due to concerns that they will get dirty than Loving Garden's. For example, a child who is rolling on the grass-like turf in the outdoor play area will be instructed to stand up. As a general rule they teach the children not to get wet or dirty, even in outdoor play. Children in the Happy Birds classroom may only play in sand if it is dry and can easily be wiped from their hair, bodies, and clothes. And other forms of messy play come with constant reprimands. When children splash their feet or sticks in puddles, or play with insects, they hear, "Don't sit on the swing. It's wet!" "Yucky! Don't play with puddles!! It's dirty." "Don't play with puddles!! You will get wet!" "Don't play with the bug. It's dirty." Children involved in messy play will swiftly find themselves redirected to slides, monkey bars, balance bikes, or scooters.

By contrast, at Loving Garden, teachers interpret "cleanliness" more broadly when children play. Their classroom operates under the philosophy that playing is vital for children's development and hence should not be interfered with for cleanliness purposes. Loving Garden's teachers encourage children to play outside and get dirty in their 1,200-square-foot sand pool and 2,400-square-foot wood and rubber mulch outdoor playground. Judith, the director of Loving Garden, told me:

> Play should come first in the children's lives. … We go outside every day, one hour in the morning, one hour in the afternoon. … We go outside unless it's hotter than 90°F or colder than 15°F. A little rain is okay as long as it's not pouring. … I tell the teachers, "If the children don't go home dirty, you didn't do your job."… It's OK for them to get dirty. It's OK for them to roll around in the sand, to dig in the dirt, to be in nature. That's OK.

The director's comment reflects the understanding that playing, getting dirty, and having fun are essential for children's development at Loving Garden. Teachers encourage children to go outside, run, roll around in the sand, and dig in the dirt. They also encourage children to use their bodies without worrying about getting dirty, meaning it's okay for children to play in the sand and wood chips with their hands, belly, knee, bottoms, or bare feet. All these physical contacts with sand, dirt, and wood chips are considered to be appropriate body usage at Loving Garden.

However, not all of Loving Garden's parents agree with the philosophy of outdoor play, messy play, and playing with dirt. Judith told me that she had to communicate with some parents about the importance of playing outside even though parents are told at enrollment that in their curriculum, children will go out every day. She shared:

> Some cultures especially think [that] at all [temperatures] below 60°F, [children] should not go outside, but we explain to [those parents] that the outside fresh air is good for the children. It's good for them to be outside to move their body, move their gross muscles, so we don't want them inside all day. We don't have an inside gross motor area, so there would be nowhere for them to be able to move. That's part of children's development. It's a huge part of them being able to move around, run, be free. Also, when they're outside, they open the doors and windows and air out the room a little bit, particularly in the winter because when everybody's so close together with all those germs, sneezing in each other's space, it's a good time to let the air in and let the germs out.

Parents are informed of Loving Garden's general approach to messy play when they enroll their children in the program, but according to Judith a few of them may react negatively:

> Some parents don't like the sand. There's so much sand. … Children are going to have sand every day. We try to have them dump out their shoes before they come in. If they're filthy, we will change them and send home the dirty clothes to be washed or whatever, but the parents know when they come that [their children are] going to play outside in the sand every day. Some of the parents still roll their eyes and complain about it.

Judith's comments suggest that staff make some effort to accommodate parents' concerns about dirt, but that some parents remain unhappy about their children returning to them in a state that the parents consider dirty. Probably the parents don't think that sand is unhealthy so much as annoying. As a mother joked to Judith when her children had graduated from Loving Garden: "I miss everything of Loving Garden, but there is one thing I will never miss: the sand!!" It seems that to many parents that having sand in their cars and house is very annoying.

My observations suggest that not all children at Loving Garden have the dirt tolerance that the school seeks to uphold. Not every child[41] is comfortable touching the sand, dirt, or wood chips with their hands, belly, knee, bottom, or bare feet. This is likely because parents who disagree with the philosophy of playing outside and playing in the sand daily, have taught their children that such practices are dirty. From my interviews with parents and teachers, children who came from households with a higher cleanliness

[41] Some children may have sensory issues that make them not like to touch certain textures, even if they are clean.

standard and a lower dirt tolerance use their bodies in a more restricted manner than children whose parents encourage them to play in the dirt. Even though teachers at Loving Garden encouraged these children to play with sand, woodchips, or dirt, they tend to hesitate or refuse.

When children and teachers have different standards and norms on cleanliness and dirt, they may encounter conflicts. Below is a typical scene that happened in Loving Garden during outdoor playtime:

> For the entire 30 minutes of outdoor playtime, Sophie refused to touch the sand. She was looking for little sequins in the sand pool with a squatting position. Two girls played next to her. One is Abby, and the other is Emma. Abby was collecting cups and baskets, shoveling the sand, and making sand cakes. Emma grabbed one pie maker and worked on digging sand to fill the pie maker up with sand. At first, Emma was squatting; soon, she switched to kneel on the sand pool. Abby was kneeling on the sand pool from the beginning. After a while, both Abby and Emma sit in the sand pool.
>
> When Abby and Emma were making sand pies and cakes, an assistant teacher, Miss Ida, approached them. She asked them what they were making. The two girls were very engaged in making sand pies and cakes; one replied, “pie,” while the other said, “cake,” without stopping shoveling. Miss Ida responded: “It looks yummy! Can I have one?” Emma, who was very excited to share what she had made, handed a sand pie to Miss Ida. Miss Ida took it and pretended to eat it with a sound, “Mmm.. It’s yummy. Thank you!” Emma looked very happy and replied with a big smile: “You’re welcome.”
>
> Miss Ida noticed that Abby was still busy making the cake. She asked Abby: “What kinds of icing do you want to put on your cake?” Abby said: “Chocolate!” Miss Ida responded, “I love chocolate!” Abby seemed very happy that Miss Ida also liked chocolate icing. She kept filling up baskets with sand and making her cakes with both her hands.
>
> When Miss Ida, Abby, and Emma were talking about the sand pies and cakes, Sophie looked at them but didn’t join the conversation. Miss Ida noticed that Sophie was looking at them and thought that Sophie might be interested in playing sand with the other two girls. She turned to talk to Sophie. “You can make pies with them,” she said. “Come to take this shovel and play [sand]

> together." Sophie didn't move. She kept squatting at the same spot and replied: "No, I don't want to play sand." Miss Ida asked, "Why not?" Sophie answered, "It's messy. I don't want to get dirty." Miss Ida seemed a little surprised. She told Sophie, "It's not dirty! It's OK to play with sand. Do you want to give it a try?" Sophie answered, "No. I don't want to touch the sand." Miss Ida answered, "OK."
>
> Miss Ida continued talking with the two girls about their sand pie and cakes and then left. Sophie was still squatting in the sand pool, looking for sequins, and keeping her body away from touching the sand. Abby and Emma continued playing with the sand, pies, and cakes, lying on their stomach in the sand pool. The sand was all over their bodies, and they seemed to be enjoying it a great deal.

Children are active participants who coconstruct the meaning of clean and dirty. All three girls were about 3.5 years old at the time of the observation. Sophie is Asian while Abby and Emma are White. It seems likely their behavior reflected different hygiene socializations they received from their parents at homes. The former is from a household that considers playing with sand to be dirty while the latter two are from households that believe playing with sand is fun.

The boundary of clean and dirty is relational and based on the participants involved in the interaction and conversation. For Sophie, playing in the sand is unclean, and she doesn't want to do it. Emma and Abby do not even think of sand as dirty. The boundary between clean and dirty is also mutually constructed. Teachers as socialization agents may be able to shift the line between dirty and clean, and enlarge the tolerance of dirt for children, if they collaborate with them. Ida tried to encourage Sophie to redefine the boundary of dirty by telling her that it is acceptable to play with sand, and it is not dirty, but she accepted Sophie's refusal. Thus, they negotiated the boundary between clean and dirty through their interaction. At the same time, Ida's positive comments to Emma and Abby represented a negotiation, a mutual construction of the idea that sand was not dirty,

and playing with sand was fine and fun. In this way they drew the line of clean and dirty so that clean included the sand.

Playing in a big outdoor playground with trees, flowers, and rocks at Loving Garden, children picked up various natural stuff all the time. They played with muddy rocks, rubber mulch, wood mulch, insects, or leaves on the grounds daily. Teachers made no comments about dirtiness when they saw children playing with natural materials. Instead, they asked children about the shape, size, weight, or color of the stuff they picked up. Similarly, I observed teachers at Loving Garden reprimand children for putting natural materials in their mouths, but they would say things like "Nobody should put sand into their mouth. Sand is not our food." They emphasized function, saying natural materials are "not food" or not "eatable" but not referencing dirtiness.

On the other hand, in the Happy Birds, teachers highlighted the meaning of dirtiness when they saw children put things in their mouths. Teachers stopped children by taking the things away from children's hands and saying: "No, it's dirty. Don't put sand into your mouth. Don't put the rock into your mouth."

Hand Hygiene: Washing Hands

Hand hygiene is the most effective nonpharmaceutical intervention to keep children healthy (Warren-Gash, Fragaszy, and Hayward 2013). In the daycare centers, teachers follow the official suggested handwashing steps of helping children wash their hands and teaching them how to wash their hands properly and like proper Americans. Health

policy and guidelines specify each step for handwashing, from the facility (child-height bathroom sink, touchless bathroom faucets, and touchless soap dispenser), type of soap, the way to dispense the soap, the temperature of the water, how the actual washing will occur, the duration of handwashing, and the way to dry hands (American Public Health Association et al. 2019; New Jersey State Department of Children and Families 2017).

Daycare centers are required to provide a child-height sink or place a stool by the sink so that children can reach the sink and conduct handwashing efficiently. Cold running water should be provided in summer and hot tap water should be at a temperature of at least 60°F (American Public Health Association et al. 2019: 230) and no more than 110°F (New Jersey State Department of Children and Families 2017: 51) in winter, according to the American Public Health Association and New Jersey state government.[42] The water must be free of lead and pathogens. Temperature controls build up the body habitus of sensory acceptance. Children get used to clean water that conforms to a specific temperature range. One day at Loving Garden I saw children's acclimation to temperature in action:

> As the 4- to 5-year-old class returned from outdoor play, teachers asked the children to wash their hands. Some didn't want to because the water was "too cold." A teacher checked the temperature on the water with her own hands and agreed that it was too cold. She asked the children to wait for a couple of minutes to let the tap water run so that it would warm up. Two minutes later, the water was warm enough, and the children washed their hands.

Teachers are the main socialization agents who monitor the procedures and standards of hygiene at childcare centers. They sensorily socialize children's bodies to the appropriate

[42] Humans consider water 100-110°F to be warm to the touch.

color, smell, and temperature of the water. To wash hands is not only to get wet under the running water—the color, smell, and temperature of water matter. Children learned that to wash their hands under clean running water within a certain temperature range is appropriate and comfortable.

Soap is specified as well. According to The Manual of Requirements for Child Care Centers of New Jersey (New Jersey State Department of Children and Families 2017), daycare centers must provide liquid soap from a soap dispenser for children to wash their hands, not bar soap. Daycare workers explained to me that children's hands are too small to use bar soap easily, and that touching bar soap is not considered a hygienic way to dispense soap, as multiple people touching it incurs the risk of germ exposure. Likewise, they said that a bar soap holder could be an incubator for the growth of mold and germs. In both daycare centers I observed, bar soaps are not even introduced to children.

Not only do children not touch a bar of soap; they do not even touch the soap dispenser. Both Happy Birds and Loving Garden have only hands-free sensor soap dispensers. Some dispense liquid soap while others dispense the foam soap. Children are taught to put their hands under the machine for two seconds and not to touch the soap dispenser. For children under 3 years old, teachers hold their hands under the machine for two seconds to get the soap on children's hands. Most children 3 to 4 years old have learned how to get the soap, but they still need teachers to remind them to use it. Children older than 4 years old seem to have the task mastered and do not need reminders.

According to daycare workers and the rules that regulate them, a hygienic child is a child who can apply soap hygienically and wash hands in a proper duration. Teachers

acknowledge that the state government and medical experts' standard of 20 seconds[43] for children older than 3 months means little to younger children (American Public Health Association et al. 2019; New Jersey State Department of Education 2014a). Therefore, a teacher told me:

> We teach the children to hand wash for 20 seconds. It's a long time, so we teach them either count to 20 or, if they're not old enough to count to 20, count to 10 two times, or if they can't count to 10 yet, we sing a song twice. (Then, she starts to hum the song) "This is the way we wash our hands. Wash our hands. Wash our hands. This is the way we wash our hands early in the morning."

Teachers socialize children temporarily that the appropriate way to wash hands is for a certain temporal duration, either count for 20, count for 10 for twice, or sing a song twice. Thus, in addition to getting the right kind of soap and using the soap in the right way, children learn that the duration for scrubbing and lathering matters.

The next step is to rinse t and then dry both hands. According to the regulation, children are expected to use towels to dry both sides of their hands after rinsing clean. A disposable single-use paper towel[44] is the preferable option for hand drying in both daycare centers I observed. Cloth towels are not considered hygienic as disposable paper towels because germs could linger on them. According to New Jersey state regulations, a center that uses cloth towels must provide one for each child that is labeled with the child's name or have parents provide them (New Jersey State Department of Children

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[43] In an earlier section, I discuss that NJDOH has suggested a different time period of handwashing: 15-20 seconds. Nevertheless, most state government and experts prefer the standard of 20 seconds.

[44] Some experts suggest using a hand-dryer to dry children's hands because it is a touch-free device. However, others point out that hand dryers are loud and that children might be terrified of the high-power dryers. Some also express concern about spreading germs in the air.

and Families 2017). It isn't easy to prevent a child from using another child's cloth towel. Furthermore, cloth towels for each child would take up a good deal of space.

Teachers are not only the primary socialization agents to teach children the appropriate way to clean hands hygienically; they are also the hygiene inspectors who check if children's hands are clean and hygienic. Teachers regularly check if children wash their hands appropriately in a hygienic manner. For example, in a classroom of 2- to 3-year-olds, Toddler Birds at Happy Birds, I observed the following:

> After changing his diaper, an assistant teacher, Miss Cindy, told 2.5-year-old Anthony: "Wash your hands." Anthony nodded, walked to the sink, and wetted his hands with running water. Miss Ann, another assistant teacher, stood aside to monitor Anthony as he carried out each step of handwashing. Seeing that he had put his hands under the water for ten seconds without further actions, Miss Ann reminded him, "You need to use soap." Anthony then put his hands under the automatic soap dispenser to get a pump of foam soap. Next, he rubbed his hands with soap, but was silent. Miss Ann told him: "Sing a song, rub your hands together." Anthony was still silent, so Miss Ann offered, "Count, 1,2,3,4,5,6,7,8,9,10. Sing a song, rub your hands together!" Anthony followed the instructions kept rubbing his hands but remained silent. Miss Ann, then, started to count for him and sang a song for him. Anthony kept rubbing his hands, not counting or singing aloud. When the next child came, Anthony was still rubbing his hands.
>
> Miss Ann seemed impatient when she saw another child was waiting in the line. She told Anthony it was time to rinse his hands under the running warm water. After he did it, she said: "OK, let me check." Anthony put his wet hands up in front of Miss Ann's eyes. Miss Ann grabbed the paper towel from the auto paper towel dispenser, handed it to Anthony, and told him: "OK, now, dry your hands." Anthony took the paper towels and dried his hands, walked to Miss Cindy to get her to check that his hands were clean and dry, and threw the used paper towels into the trash can. Miss Cindy looked at his hands and said: "You good." Anthony smiled and went back to the classroom.

Children from different households may use different procedures and different kinds of facilities to clean their hands. However, in childcare centers, all children must follow the

same hygiene standards and carry out the same hygiene procedures to wash their hands. This creates the American normality, the standardized way to achieve clean hands, taught by teachers at daycare centers from age 2.

Respiratory Hygiene: Covering Mouth and Nose When Coughing and Sneezing

Discharges of the mouth and nose are two primary sources that spread infective germs and transmit diseases. Therefore, public and medical experts suggest that coughing and sneezing are two bodily acts that incur hygienic concerns (World Health Organization 2014). Public health educators have believed since the late 19th century that teaching the population about the hygienic way to conduct these two bodily acts is crucial to reduce the likelihood of disease transmission (Tomes 1998).

The New Jersey state government doesn't regulate the appropriate way to cough or sneeze on the state hygiene regulation since CDC considered it as "cough etiquette,"[45] which implies that everyone should have taken it for granted in American society. The guidelines for childcare professionals in ECEC published by the medical professional associations also have a section on "cough and sneeze etiquette." The guidelines state that the appropriate way to sneeze and cough is to cover your mouth or nose with tissues. If tissues are not available or not at hand, the hygienic way is to cover your mouth or nose

[45] CDC. Basic Expectations for Safe Care Training Module 4 – Respiratory Hygiene and Cough Etiquette. Available at: https://www.cdc.gov/oralhealth/infectioncontrol/safe-care-modules.htm. Visited on 5/26/2021.

with your inner elbow or upper sleeve instead of your bare hands (American Public Health Association et al. 2019).

At both Happy Birds and Loving Garden, teachers have a lesson plan to teach children 18 months and older the appropriate way to cough and sneeze at the beginning of the semester. Because children cannot see or feel germs, they use creative ways to help children visualize germs and teach them the proper hygienic way to cough and sneeze. Below, I recorded the class activity in which the teacher taught 2-year-old children the ideas of germs and the hygienic way to cover the nose and mouth.

> It was circle time. Lead teacher Debra told the children: "We are going to learn what to do when we want to cough and sneeze today!" She held up a spray bottle filled with water. Debra asked first, "I got germs in my nose and mouth, and if I sneeze [here she made an achoo sound], what happened? Did my germs get over to you? The germs will go over to your nose and mouth! The germs would spread out like this spray!" She squeezed the trigger of the spray bottle at the children, who laughed. She pressed the trigger one more time, and the children giggled excitedly. She went on, "When I cough, the germs spread out from my mouth like this! [She squeezed again.] When I sneezed, I also spread the germs. Now, the germs would run over to you." The children were all giggling, lifting their hands in the air, excited to touch the spray droplets.
>
> After her demonstration, Debra split the children into three small groups. There were five children with each teacher who showed children how to squeeze the spray bottle's trigger in each group. The children took turns using the sprayer. Each time when the mist sprayed out, Debra yelled: "Your germs got over to me." This made the excited children giggle all the more.
>
> After everyone tried it, Debra said: "When we spread the germs, we have to protect others. When you want to sneeze, you need to cover your mouth. Not using your hands to cover your mouth, but your elbow. OK, now everyone, let's practice it together. Let's sneeze together [again she pretended to sneeze with an achoo sound]. Now lift your elbow to cover your mouth and nose—" here she put her elbow over her mouth and nose.
>
> "That's right. Come on, let's practice it again." Debra showed them again, making a loud sneeze sound. "Achoo! Cover your mouth," she said.

> As the children practiced, Debra encouraged them: "That's right. You all protect yourself like this." She asked, "Then, what do we do when we cough? It's the same. You have to protect other people. Cover your mouths with your elbows. That's right! Everyone is doing it right." Debra looked around. Most children were pretending to sneeze or cough into their inner elbows as she had demonstrated, but John was covering his mouth with his hands. She came close to him and reminded him: "You need to cover your mouth with your elbows, not your hands!" Debra moved his hands away and lifted his elbow to cover his mouth.
>
> After every child had a chance to spray the bottle and showed teachers that they could use their elbows to cover their mouths a couple of times, Debra brought them back to circle time. She said: "Let's do it together. Achoo! Cover your mouth." She saw someone in need of correction: "You need to cover your mouth, Eric. All right, everyone is doing a great job today. We will teach you how to blow your nose next time. Now let's sing a song."
>
> Debra looked at Jenny, standing next to a portable CD player, and nodded. A song from an old cartoon, Chilly Willy,[46] a penguin who got a cold and sneezed, played. As the song ended, with "ha-choo!" the teachers asked children to lift their elbows to cover their noses and mouths.

The lesson makes it clear that covering your nose or mouth with bare hands is nonhygienic, while covering your nose and mouths with an elbow is hygienic. Children from households where parents cover their mouth and noses with their hands when coughing or sneezing learned at daycare the way now considered appropriate in American society. Children who cover their nose or mouth with bare hands are labeled nonhygienic, and teachers correct them. Children who cover their nose and mouths with an elbow or tissue are hygienic, and teachers praised them. By practicing and

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[46] The lyrics: "I'm Chilly Willy the penguin. I shake until I'm blue. My head is hot, and my feet are cold. Ha…Hee…Hachoo! Now, what about the crocodiles along the river Nile? I'll bet they're always warm as toast. They always seem to smile. I'm always Chilly Willy. I'm frozen through and through. My nose is red, and my tale is told. Ha…Hee…Hachoo!"

internalizing this "cough etiquette," a modern hygienic child is on the way to being trained at daycare centers.

Covering your nose or mouth with your elbow is not an objective nor a universal practice. People understand good and proper hygiene behaviors differently across time and places (Jin and Kim 2015; Nizame et al. 2011; World Health Organization 2007). John's demonstration of covering his nose and mouth with his hands would be considered hygienic and an appropriate way to stop the spread of respiratory infections in many places in the world (Jami et al. 2021; Jin and Kim 2015; Nizame et al. 2011), even in the United States. According to my interviews with parents, many told me that they were not taught this in childhood. Similarly, Leroy (2017: 59) found that in 2006 France, a preschool teacher "teaches her pupils to put their hands in front of their mouths when they cough or yawn." Covering their mouths by hands is a suggested way to deal with a cough or yawn.

Indeed, the World Health Organization (WHO) recommended it until 2007, and it made no mention of the word "elbow" in its guidelines for respiratory hygiene that time, calling for the use of "handkerchiefs, tissues or hands" when coughing or sneezing (World Health Organization 2007: 20). The original descriptions are as follow:

> If medical masks are not available, [practitioners should] instruct the patients (or parents of pediatric patients) [in the health care environment] to use other methods for source control (e.g., cover their nose/mouth with tissue, handkerchiefs, hands or cloth masks) during coughing/sneezing or use the most practical alternative to contain respiratory secretions. Patients should be encouraged to perform hand hygiene after contact with respiratory secretions. (World Health Organization 2007: 23)

However, seven years later, things had changed. WHO updated the guideline for infection prevention and control of epidemic in 2014 under the heading "Respiratory Hygiene." It states:

> Respiratory hygiene (i.e., covering the mouth and nose during coughing or sneezing with a medical mask, tissue, or a sleeve or flexed elbow, followed by hand hygiene) should be practiced by people with ARIs (acute respiratory infections) to reduce the dispersal of respiratory secretions containing potentially infectious particles. (World Health Organization 2014: 3)

This change over time suggests that boundaries of what is hygienic and unhygienic are not fixed but negotiable. They are socially constructed.

Wearing Outdoor Shoes in the Room

At both Happy Birds and Loving Garden, children wear their outdoor shoes in the classroom. Instead of asking children to leave their shoes at the door or to change to separate indoor shoes as daycare centers in Asian countries would do, American daycare teachers consider it hygienic and normal to walk on the carpet and floor with shoes that were worn out of doors. At Happy Birds, children even sleep with their shoes during nap time. At Loving Garden, children who prefer to may take their shoes off at nap time, but teachers do not consider this important to keeping the cots or mats they sleep on clean. Walking on mats and putting shoes on cots is normalized. Furthermore, from my field observations, I also noticed that children are sitting, lying, and rolling on the classroom carpet, which they wouldn't do in most public places' carpets because their parents might

consider the carpets in public spaces to be dirty. However, all of these are acceptable in the daycare centers' classrooms.

If children want to take their shoes off at the door, teachers will stop them. As Lydia shared her experiences of correcting children:

> Some children may practice no shoes inside at their homes and would take off their shoes at the door when they enter the classroom. When I see it, I will ask them to put on their shoes. It's hard for a child to understand the differences, but I keep reminding them. [After] about two weeks, they learned that they need to wear shoes in the classroom. … They also wear shoes during the nap time. [Why?] Because it is the state rule that children should have their shoes on all the time in the daycare for safety concerns. In case there is a fire or other emergency, children with their shoes on can run away safely. … Plus, we have fire drill twice a month, so children have to wear shoes in the classroom all the time.

As Lydia explained, wearing shoes in a classroom all the time is a state rule that aims to protect children from getting stomped or hurt and to move safely when an emergency happens. Therefore, children should wear their shoes, even during their nap time. Removing one's shoes at the classroom door is considered unacceptable, weird, and inappropriate. Not wearing shoes inside a classroom violates the New Jersey state regulation; furthermore, it may also violate the American norm. Because in the U.S. wearing shoes is considered an American formality while "with shoes off" is used as an expression to mean "very comfortable."

Most of the children who removed their shoes or started doing so on arrival in the classroom were from Asian and Middle East backgrounds. But they learn at school that it is unnecessary or even weird to take off outdoor shoes inside. While their parents socialize them to feel that wearing outside shoes on the carpet or floor is dirty, the

children learn that it's hygienic and normal to do otherwise at school. Thus, they learn American hygiene norms and normality about shoe policy.

In the daycare centers, children are learning to distinguish home from not home. At the same time, children from different cultural backgrounds find not-home more unfamiliar than home. They are learning to adjust their behaviors accordingly. Regarding the shoes policy, some immigrant parents, who practiced no shoes policy in their homes, shared that their children stopped taking their shoes off at their house because they were taught it is clean and hygienic to wear outside shoes in their classrooms. These immigrant parents had to socialize their children again that it is dirty to wear outside shoes in their homes.

Table Manners: Using a Personal Utensil, Napkins, and Serving Utensils

Another aspect of producing hygienic bodies is related to mouth and hands, which are two body parts that are associated with appropriate eating behaviors. All children who enrolled in both centers have their breakfast and lunch at school. Mealtimes are labor-intensive tasks for daycare workers, and not only because handwashing must precede mealtime and dining equipment must be disinfected. Teachers also monitor how children eat, give instructions, remind children of good table manners, and correct errors when children do not follow norms. At a typical lunchtime at Happy Birds, I observed how exhausting this is with 2-year-olds (24-35 months):

> The 2-year-old children had mashed potato, chicken, penne pasta, and banana for today's lunch. Teachers put all children into their highchairs, buckled them up, and

put their bibs on. Then aides were busy serving children, cutting the food, and serving it on their food trays.

Once children started eating and touching their foods, it was chaotic. Some were putting food into their mouth with their hands. Some were throwing their food on the floor. Still, some were using their spoon to deliver food to their mouth but couldn't control their hands properly. Therefore, little food remained on the spoon while most dropped on the tray and the floor.

Jack tried to eat penne pasta with his fork, but it kept falling off of his fork. Several times he put the empty fork into his mouth. Miss Lisa, an assistant teacher, saw Jack had food all over his long sleeves. She grabbed his arms and rolled his sleeves up without making any comment. Jack continued to try with his fork for a few minutes, but then became frustrated and switched to his hands. Jack was getting tomato sauce all over his hands, face, and tray. A couple of minutes later, after Miss Lisa was done serving the other children, she noticed and she reprimanded him: "Don't eat with your hands. It's dirty! Use your fork." Jack looked at Miss Lisa and kept eating with his hands. Miss Lisa tried again. She picked up his fork and handed it to Jack, saying, "Don't use your hands. It's dirty! Use your fork to eat." Jack didn't take the fork and continued to eat with his hands. Miss Lisa held Jack's hand and made him hold the fork. Jack threw the fork on the floor. Miss Lisa told him: "Don't throw your fork on the floor." Jack didn't respond. Miss Lisa then grabbed another clean fork and handed it to Jack. He threw it on his floor and his food as well.

Miss Lisa's voice was getting louder: "Don't throw your food on the floor! It's dirty. Food is not for throwing. Food is for eating." Jack ignored her and kept throwing his food on the floor. Visibly upset, Miss Lisa tried to stop him by holding his hands. Jack was upset, too. He started screaming. This brought Miss Teresa, the lead teacher, to them. She pulled Miss Lisa's hands away, saying gently, "It's OK! He's finishing anyway!" Miss Lisa didn't acknowledge the comment, but she walked away to help other children.

Nonetheless, Miss Teresa was soon reprimanding another child. The interaction began innocuously; on the other side of the dining table, Nina threw her banana on the floor. Miss Teresa saw it and asked her: "Fell?" Nina nodded. "It's dirty now. Let me get it and give you a new one," Miss Teresa said to Nina, who was silent. "You need to say: another one, please," she instructed. Nina nodded without saying a word. Miss Teresa picked up the fallen banana, threw it away, and took a new banana to Nina, who ate it with her hands. In keeping with American norms for eating fruit, Miss Teresa didn't make any comments, but when Nina began eating her pasta with her hands, getting tomato sauce all over her hands, hair, face, and tray, Miss Teresa looked annoyed. She said loudly, "Use your fork! IT'S DIRTY! Don't eat with your hands!"

> It was Miss Corrine who told Lucas to eat with his fork. He was grabbing mashed potatoes with his hands, then licking them off his hands. Miss Corrine told him: "Your hands will get sticky! Use your fork!" Lucas didn't listen to her any more than the other children had paid attention. Soon, the mashed potatoes were all over his hands, face, and hair. Miss Corrine was louder than before when she said, "DO NOT PLAY WITH YOUR FOOD." Still, Lucas didn't stop. Miss Corrine repeated herself, grabbing Lucas's hands much as Miss Lisa had grabbed Jack's, saying: "Do not eat with your elbow or hair! It's dirty!" (Lucas wasn't apparently trying to eat with his elbow or hair, but both were quite messy at this point.) Lucas was angry and began throwing food as well. Miss Corrine said, "Lucas, mashed potato is not for play! Stop throwing it on the floor."

From my interviews and observations, all teachers who teach 2-year-olds and older do not allow them to eat with their hands unless it's finger food (Carruth et al. 2004; Exner 2001; Mielke 2008).[47] Some are stricter with the rule while others are looser. While at times I saw teachers at Happy Birds be more tolerant of messy eating, and some teachers seemed to personally find it less annoying than others, in general teachers were willing to work hard to enforce hygienic norms at mealtimes. But the goal is to train them to use utensils and eat properly. All three teachers I observed correcting children's table manners on this particular day used the word "dirty" to describe food out of place. At other times, I heard them using the words "disgusting," or "gross," when children ate with their hands, unless, as with the banana, it was something they considered it appropriate to eat with their hands.

[47] Some readers may think that the standards are probably too high for 2-year-olds to properly use utensils. Nevertheless, self-feeding is an important developmental milestone for toddlers. During the age of 2 to 3 years old (25-34 months), toddlers are developing their visual-motor integration and fine motor coordination and dexterity, and master the use of utensils (Mielke 2008). Occupational therapists suggest that children learn the spoon use by 18 months of age and fork use by 2.5 years (Exner 2001). About 88% of 24-month-old toddlers are able to self-feed with a spoon without spilling much (Carruth et al. 2004).

On the other hand, teachers at Loving Garden are more relaxed about table manners. For children between 18 and 36 months old, teachers focus on encouraging children to try various kinds of food and practice using utensils. The messy eating, food throwing, eating with hands, face, elbow, clothes, and hair are all tolerated and considered part of a learning process. Teachers never reproach children this young for messy eating. Instead of focusing on the chaotic eating behaviors, teachers highlight the nutrition aspect of the mealtime. They do this by asking children if they want to have one more bite of the foods in front of them—naming them, whether it's vegetable, cheese, pasta, chili, fruits, rice, pasta, tacos, or milk—before clearing them when they say they're done. Teachers also have a high tolerance for messy eating for any child who is under 3 years old. However, they will call out eating food normally eaten with a fork in America by hand as inappropriate and dirty for older children. I observed this during breakfast time at the 3- to 4-year-old (36-47 months) classroom at Loving Garden:

> This morning, Loving Garden offered cereal, milk, and banana for breakfast. First, the lead teacher, Miss Ginna passed down the box of utensils, cups, and napkins to the children, asking them to get one fork, one spoon, one cup, and one napkin, and then passing the boxes to the next child.
>
> After the distribution of utensils and napkins concluded, Miss Ginna asked: "Who is thirsty?" Josh, a 3.5-year-old boy, raised his hand and said: "Me!" Miss Ginna picked his cup up and poured milk into it and handed it to him. Josh then dipped his fingers into the cup and licked the milk off his fingers. Miss Ginna instructed him, "Don't do it. Milk is for drinking, not for playing. It's gross. Focus on your food." Josh stopped, and Miss Ginna finished serving milk to each child.
>
> Once every child had milk, Miss Ginna passed a bananas box and asked the children to each take one. Then, they passed around a big serving bowl filled with cereal and a serving spoon. She instructed: "If you are hungry, you get a significant portion. If you are not hungry, you get a small amount." Children scooped up the cereal from the serving bowl to their bowl using the serving

> spoon, one by one. Suddenly, a child licked the serving spoon as he scooped the cereal into his bowl. Immediately, Miss Ginna stopped him, grabbing the serving spoon. She exclaimed: "No! Please do not lick the serving spoon. It's for everyone! We don't lick the serving spoon! It's yucky! Use your spoon." She handed the spoon to the teaching aide, Maya, and asked her to bring the dirty one back to the kitchen and get a new serving spoon as soon as possible since only half of the students had gotten their cereal.
>
> While all children are waiting to get cereal, Miss Ginna made sure that each of them had their cups filled up with milk. When Maya was back with a clean serving spoon, children continued to serve themselves. Miss Ginna told the children that if anyone wants milk with their cereal she was happy to help them. Josh responded: Milk with cereal, please. Miss Ginna poured milk over his cereal and returned it to him.
>
> The moment Josh got his bowl back, he dipped his fingers into the milk. He was also eating wet cereal with his hands instead of his spoon. Miss Ginna told him, "It's gross. Use your spoon, not your hands! Your hands will be sticky!"

While Loving Garden takes a different approach to teaching children table manners than they do at Happy Birds, they, too, are socializing children into the conventional notions of proper eating behaviors in U.S. society and articulating them according to clean and dirty boundaries. Even though the table manner is highly socially and culturally constructed—in some societies, eating with hands is appropriate while in others is not; in some cultures, the norm is to use left hand to manage the fork while in others left hand is prohibited from touching food even if you are left-handed. In the U.S., eating with a utensil is considered hygienic, while eating with hands is considered nonhygienic. Children from families where using their hands is normal learn from school that eating with hands is not a proper way of eating in U.S. society.

“Don’t Share Food. You Would Spread the Germs”

The last aspect of body management that produces American hygienic bodies is preventing sharing of food. New Jersey state regulation requires teachers to make sure that children do not share food using the same dish or utensils (New Jersey State Department of Children and Families 2017). Medical experts also suggest that food-sharing may increase the likelihood of disease transmission. Teachers socialize children into not sharing food or using a utensil that someone else will use by describing it as unhygienic and gross to share food. I saw teachers socializing children into this norm at a typical lunchtime in the 3- to 4-year-old classroom in Loving Garden:

> Children had rice, chicken, broccoli, pineapple, and milk for today’s lunch. First the children passed the napkins, utensils, plates, and cups. When each had a full set, the teacher started to serve milk to children, one by one. After every child got a cup of milk, the teacher cut the pineapple into small pieces, put them into a serving bowl with a serving spoon, and passed the serving bowl down to the children. “Take the portion you want to eat,” the teacher told the children.
>
> It worked well for the first three children who used the serving spoon to take pieces of pineapple onto their plates. However, the next child, a girl, used her hands. When the teacher saw it, she exclaimed: “Don’t touch the pineapple with your hands! You will spread the germs! Use the serving spoon.” The girl then dropped the pineapples from her hands and used the serving spoon to scoop the pineapples to her plate. Then she licked the serving spoon. The teacher was surprised, shaking her head. “No. Don’t lick the serving spoon. You will spread germs on it! Use your spoon.” The girl seems very confused but followed the instruction to use her spoon. The teacher took the serving spoon back and said: “We couldn’t use it. It’s dirty. I have to get a new serving spoon.” Unfortunately, there were no extra serving spoons on the dining cart. The only way to get a clean serving spoon was to go to the kitchen to get one. However, the teacher couldn’t do that because she could not leave the children at a dining table alone. So, she made do with an extra dining spoon and the children who hadn’t been served yet used it as a serving spoon for the pineapple. Nevertheless, she avoided further such incident by serving the rice, chicken, and broccoli to the children herself—asking them if they wanted a “big portion” or a “small” one.

Another incident from the same classroom and lunch period suggested that some teachers had fairly extreme ideas about how germs might pass: Two toddler boys here talking to each other and laughing. With big smiles, they clinked their sippy cups to each other. Seeing this, a teacher said, "Do not touch your cups, you will spread germs!" The two toddler boys looked at each other, seeming confused. Sippy cups have a bigger, more prominent area that touches the mouth and gets spit on it than open cups. However, the regulations for daycares make no mention of preventing children from clinking cups, and this is a normalized behavior in American society when toasting, which may account for the children's confusion. It seems likely they had done this with their parents or seen their parents do it.

The same day I saw children share food and noticed that teachers were not in agreement about its meaning:

> A toddler boy, Michael, scooped some of his pineapples onto a classmate's plate. A teaching aide, Maya, saw it and said: "Oh, Michael is so sweet to give you pineapples. Michael likes you!" Michael smiled, and Isa looked pleased. However, the lead teacher, Ginna, who also saw it, disagreed. "No, don't share food. You will spread the germs! Michael!" The boy looked very confused. The lead teacher then reminded the teaching aide: "No, food-sharing!" The teaching aide nodded and said: "Yep, no food-sharing."

The reaction of the teaching aide, Maya[48] reflects an orientation toward sharing things, which teachers try to encourage, but the lead teacher, Ginna, was right that state regulation requires teachers to discourage rather than encourage food-sharing behaviors.

[48] Maya's reaction is consistent with what Heidi M. Gansen (2017) found concerning the reproduction of heteronormativity in preschool classrooms. Preschool teachers may socialize little children with the compulsory heterosexuality as normality.

The interactions at Happy Birds show that boundaries of hygienic and unhygienic are not fixed but negotiable. The placement of these boundaries depends on the participants who engaged in the interaction.

Children whose family members often share food learned that food-sharing is not hygienic and not proper in the school settings. Similarly, children who clink their cups are scolded by the teacher as "spreading germs." Sharing utensils (fork, spoon, and cups) is not allowed. By calling out and correcting children to fit into the hygienic norms, an American hygienic body is on the way to being made at daycare centers.

Children brought the hygiene rules they learned back home and educated their parents. Based on my parental interview data, most U.S.-born parents told me that they shared similar rules as daycare centers while a couple of immigrant parents were aware that some of their hygiene habits were different from what daycare teachers taught their children. While some immigrant parents reported that they changed their hygiene rules to align with the daycare centers, none of the U.S.-born parents reported so.

Chapter 4

How Do American Parents (especially Mothers) Respond to the American Hygiene Discourses? Hygiene Policers and Immunity Builders

This chapter examines the hygiene-related childcare practices of American working and middle-class[49] parents in northeastern U.S. suburbs. I explore how American parents care for infants and raise toddlers and preschoolers hygienically in contemporary neoliberal American cultural contexts. Specifically, I investigate the factors that affect how parents with young children (age 0-5) understand dirt, germs, and diseases. How do they keep their children clean and healthy? What kinds of hygiene norms do they perceive, and what are their standards of hygiene, sanitation, and cleanliness when taking care of their young children? Do they clean and sanitize frequently to protect their children from germs and dirt? Do they worry about if their children are exposed to dirt and germs? Do they prohibit their children from playing with dirt? Or do they have higher tolerances for germs and dirt because of the hygiene hypothesis? Do they welcome dirt and germs exposures to build their children's immunity? Do they encourage their children to play with dirt because they see it as a way to make their children happier?

I distinguish two ideal types, hygiene policer and immunity builder, as two distinct types of management, attitudes, and understandings of cleanliness, dirt, germs, and

[49] Selection of study participants used both educational attainments and annual household income to obtain a sample of working and middle-class families: families with at least one parent who holds high school degree and whose occupation is classified as blue-collar are considered as working class. Families with both parents holding at least a bachelor's degree and whose yearly household income is double to two-thirds the national median (Pew 2020) are considered as middle-class. In 2018, this meant that a family of three had an annual household income between $55,879 and $167,634 and a family of four between $64,523 and $193,568.

health. The ideal types are analytical tools to discuss how parents (especially mothers) adopted different kinds of dirt management and germ exposure. Social actors may manage dirt differently depending on social, cultural, economic, health, and life course contexts.

The Intensive Mothering Ideology and Competing Hygiene Discourses under the Neoliberal Health Governance: Heterogeneous Motherhoods

The dominant scientific hygiene discourses on the diseases and infections shape American mothers' daily childcare practices and redefine good mothers' responsibilities (American Academy of Pediatrics 2014; Apple 2006). Since the early 20th century, medical and public health experts have positioned homemakers and mothers as the safeguards of households' health (Ehrenreich and English 2005; Prudden 1890; Tomes 1997), and hygiene and hygienic childcare practices were associated with lower child mortality in the first part of the 20th century (Condran and Preston 1993). Cleaning products such as hand soap, hand sanitizers, disinfectant wipes (Clorox), Lysol, and detergents, so called "friends of health" (Hoy 1995), run advertising in parenting magazines in order to target mothers of young children (Sunderland 2006), promising to make homes as germ-free as possible to protect children (Tomes 2000). Cleaning is considered a moral responsibility for women, especially for mothers. Medical professionals, home economists, sanitary scientists, and cleaning corporations highlight hygiene and cleanliness in daily childcare practices (American Academy of Pediatrics 2014; Apple 2006; Ehrenreich and English 2005; Hoy 1995; Spock 1992; Tomes 1990;

Tomes 1997). Eliminating dirt, staying away from germs, and keeping clean became essential in daily childcare practices (Altmann 2005). Parents, especially mothers, and school educators are advised to eliminate dirt (bacteria, dust, and other toxins) by employing health-focused cleaning to lower the chances of contracting germs and therefore stay healthy since the middle of the 20th century (Gerba 2010).

The dominant hygiene discourses only tell a half story of mothers' lives. The other half is from the social and cultural expectations of motherhood. This section explores how social, cultural, and gender discourses shape parents' understandings of motherhood and parenthood, as these understandings are precursors to parents' construction of germs and dirt. Mothers are active social actors who actively collect childcare information, make childcare decisions, and respond to maternal expectations. Mothers are also heterogeneous, not homogeneous, and affected by multiple medical paradigms.

"Intensive mothering ideology" (Hays 1996), which pressured mothers (not fathers) to focus on their children; conduct emotionally absorbing, labor-intensive, and financially expensive childcare practices; and provide the best for children, was prevalent throughout the 20th century. "Scientific motherhood" (Apple 2006), which expected mothers to follow scientific and medical experts' advice to raise their children healthfully, supported the idea that mothers are responsible for implementing medical and scientific guidance to become the primary protectors and gatekeepers for their children's health in neoliberal contexts (Mackendrick 2014; Reich 2014).

As shown in Figure 1, in the 20th century, intensive mothering with scientific motherhood combined with dominant hygiene discourses such that American mothers

were expected to practice what I conceptualize as "intensive hygienic motherhood." This ideology requires mothers to follow dominant hygiene discourses to clean, sanitize, and disinfect objects with which children come in contact as well as their environment. I argue that intensive hygienic motherhood advises mothers to conduct emotionally absorbing, labor-intensive, and financially expensive hygiene-related childcare practices. It includes constant tidying up, sanitizing, and disinfecting places, equipment, and objects children would use and touch; patiently and gently cleaning, wiping, and washing young children's bodies; and keeping children away from exposure to infectious germs.

In the contexts of neoliberal health governance, individuals are responsible for their own health and that of their children and are under public health surveillance, which puts a burden on mothers as the primary childcare providers.[50] Private childcaring practices become objects of surveillance. Under intensive hygienic motherhood, the government monitors if mothers fulfill the public health standards for hygiene and cleanliness and whether they take responsibility to protect the health of their young children and contribute to the health of the broader community. Childcare practices became a public sphere under (micro)surveillance by other parents and strangers when mothers do not confirm the dominant hygiene discourses.

[50] In a neoliberal consumer society, generalized anxiety about germs frames the governance of infectious diseases as a public health issue (McClary 1980; Tomes 2000). The impacts of generalized fear and anxiety of germs and viruses on the prevention of infectious diseases became more salient during the COVID-19 pandemic. Studies show that the degrees of generalized anxiety, stress, and fear of viruses individuals hold are significantly associated with individuals' public health compliance behaviors (wearing masks, improving hand hygiene, keeping social distancing, etc.). Harper et al. (2020) discusses this in further detail.

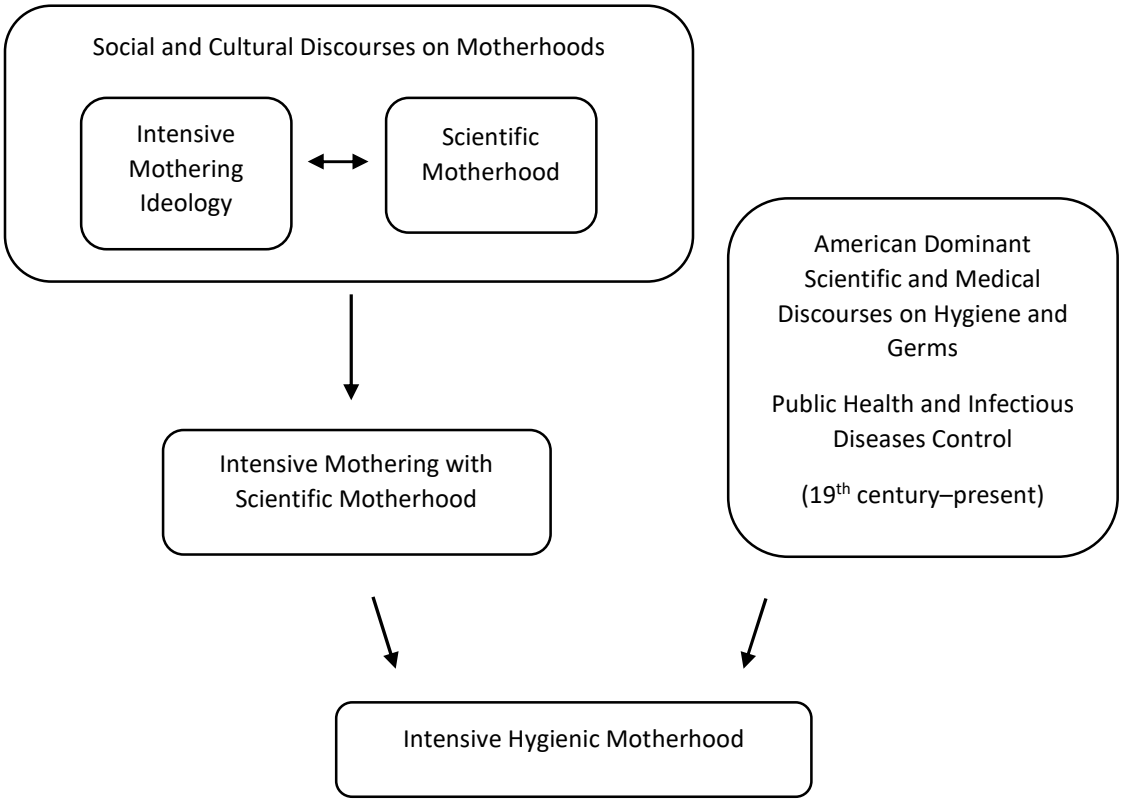

Figure 1: Analytical concept of "intensive hygienic motherhood"

At the same time, scientific advice about germs and dirt exposure for young children has become heterogeneous in the 21st century (Callon 1995; Karamanou et al. 2012; Kuhn and Hawkins 1963). This reflects the ascendance of the hygiene hypothesis since the 1990s, which has introduced new interpretations of cleanliness, germs, and dirt on health. Figure 2 depicts the alternate discourses that frame the social reality regarding the guidelines mothers are supposed to follow with respect to germs and dirt (Berger 1966; Zerubavel 1993b).

Prior to the rise of the hygiene hypothesis, germ theory had been the foundation of infectious disease control and public health governance since the 19th century, dominating public health discourses and policies (Rosen 1993). As firm believers in germ theory, public health experts and officials promoted hygiene and cleanliness by legislation to control infectious diseases in public spaces (Lupton 1995; Rosen 1993; Tomes 1990). Chapter 2 described the state hygiene regulations governing nonparental childcare providers and facilities. As this chapter will describe, while parental childcare has been considered private, in the 20th century hygiene discourses made it the subject of hygiene surveillance. Medical experts promoted the notion that all parents should serve as the front-line gatekeepers, cleaning everything in children's environment to eliminate germs and protect the health of infants, toddlers, and preschoolers (American Academy of Pediatrics 2014; Spock 1992).

The germ theory states that contact with germs is the cause of disease; germs are human beings' enemies. The human body is like a vulnerable castle surrounded by omnipresent germs, seeking to invade (Martin 1994). Killing germs and reducing exposures to germs is the best way to prevent diseases. Dirt and dust may carry and harbor germs (McClary 1980). Therefore, both germs and dirt are health threats. The relationship between cleanliness, dirt, and health is based on the world view of binary opposition. In this view clean and dirty are mutually exclusive, and cleaning, sanitation, and disinfection are essential to staying healthy. Likewise the cleaner an environment, the healthier the people in it will be. The positive association between cleanliness and health is constructed by eliminating germs and dirt.

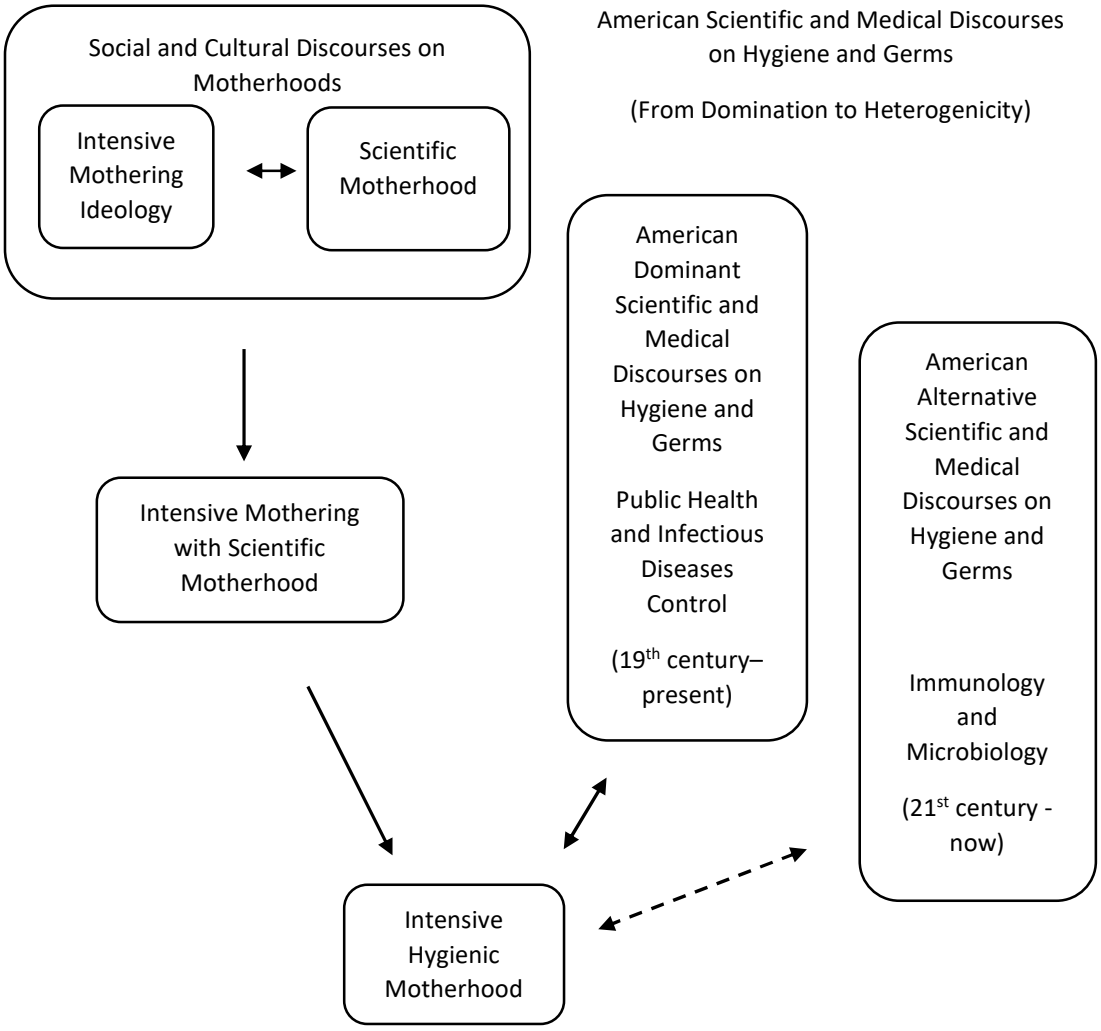

Figure 2 : From domination to heterogenicity: American scientific and medical discourses on hygiene and germs

Strachan (1989) proposed the "hygiene hypothesis" more than four decades ago, arguing that not contacting germs is the cause of diseases. Strachan brought together a number of observations. First, there is a negative association between cleanliness and

health in developed countries. A higher standard of cleanliness, sanitation, and personal hygiene is associated with a higher likelihood of developing seasonal allergies in developed countries. Scholars have expanded on Strachan's view, arguing that dirt and germs are the "tutors" of human immune systems (Gilbert, Knight, and Blakeslee 2017) and that young children in particular need them. Investigations have found that children who live in rural areas and are exposed to more dirt, bacteria, virus, plants, and animals on the farm when they are young are less likely to develop atopy, allergic rhinitis, and asthma than children who live in urban areas (Fall et al. 2015). Early childhood infection, they argue, has protective effects against future allergic illnesses. The more interactions between microorganisms and a child, the more beneficial to a child's health because it will train children's immature immune systems. As Ruebush (2009: 72) described it:

> What a child is doing when he [sic] puts things in his mouth is allowing his immune response to explore his environment. Not only does this allow for "practice" of immune responses which will be necessary for protection, but it also plays a critical role in teaching the immature immune response what is best ignored. Learning to distinguish between genuine threats and false alarms is crucial to immune system training.

What was long considered an enemy, microbiologists and immunologists suggested, is now a friend. Thus they advise that standards of hygiene and cleanliness should decrease. They warn parents that "excessive cleanliness" had been associated with asthma and allergies. They oppose conducting routine disinfection that will kill all bacteria and germs and argue that it's "absurd" and worthless (Gilbert, Knight, and Blakeslee 2017). Parents should let children play with mud, because touching dirt is "irrelevant" to "illness." Parents should even ignore children who eat dirt because it offers microbial exposures that are regarded as irrelevant to sickness and beneficial to children's health (Gilbert,

Knight, and Blakeslee 2017; Ruebush 2009). The way to raise healthy children is to lower standards of hygiene and cleanliness (Kramer et al. 2013; McClary 1980; Okada et al. 2010; Rook and Stanford 1998; Rook 2009; Scudellari 2017; Tomes 2000).

The hygiene hypothesis marks the "diverse exposures" *(variety) and "dose-response" (number) association* between dirt/germs exposures and health status (Schaub, Lauener, and von Mutius 2006). The more diverse germ/dirt exposures and the more infections individuals had encountered, the lower the observed illness of asthma, atopy, and allergies. Further, it emphasizes the "golden window" (timing) of the autoimmune regulatory process, suggesting that early microbial exposure is particularly important, helping children develop tolerance of environmental components such as pollen and mites (Braun-Fahrländer et al. 2002; Fall et al. 2015; Rook 2009). The human body is viewed as an interconnecting system that learns from the germs and dirt it encounters.

The contested medical knowledge on cleanliness, germs, dirt, and health pushed the dominant hygiene discourses into a paradigm competition. The American scientific and medical discourses on hygiene and germs are experiencing a shift from domination to heterogenicity in the 21st century, as shown in Figure 2. The competing medical discourses blur the connection between cleanliness and health and challenge the idea that cleanliness is essential to children's health. The debate puts both "cleanliness" and "dirt" into an ambiguous position where both could be considered good, bad, or neither.

However, as the regulations discussed in chapter 2 suggest, the hygiene hypothesis has not had significant influence on public health policy. Public health experts and policymakers still follow the traditional germ theory and highlight the importance of

sanitation and disinfection as a way to kill germs and create a hygienic environment. However, hygiene surveillance is far less in private households than daycares, and my observations suggest that the hygiene hypothesis has influenced some mothers.

Hygiene Policers and Immunity Builders

As shown in Figure 3, I argue that there are two ideal types of dirt and germs management: hygiene policers and immunity builders. Hygiene policers believe that fulfilling their maternal responsibilities means keeping children clean and hygienic. Good mothering involves acting as the primary protector. She must shield her children from germs and dirt and keep them healthy by cleaning and disinfecting. On the other hand, immunity builders reject the dominant intensive hygienic motherhood discourses on cleanliness and disinfection. They subscribe to the hygiene hypothesis and may consider the cleaning and disinfections of hygiene policers to be obsessive. They may actively try to create more opportunities for their children to embrace dirt and have diversified germ exposures.

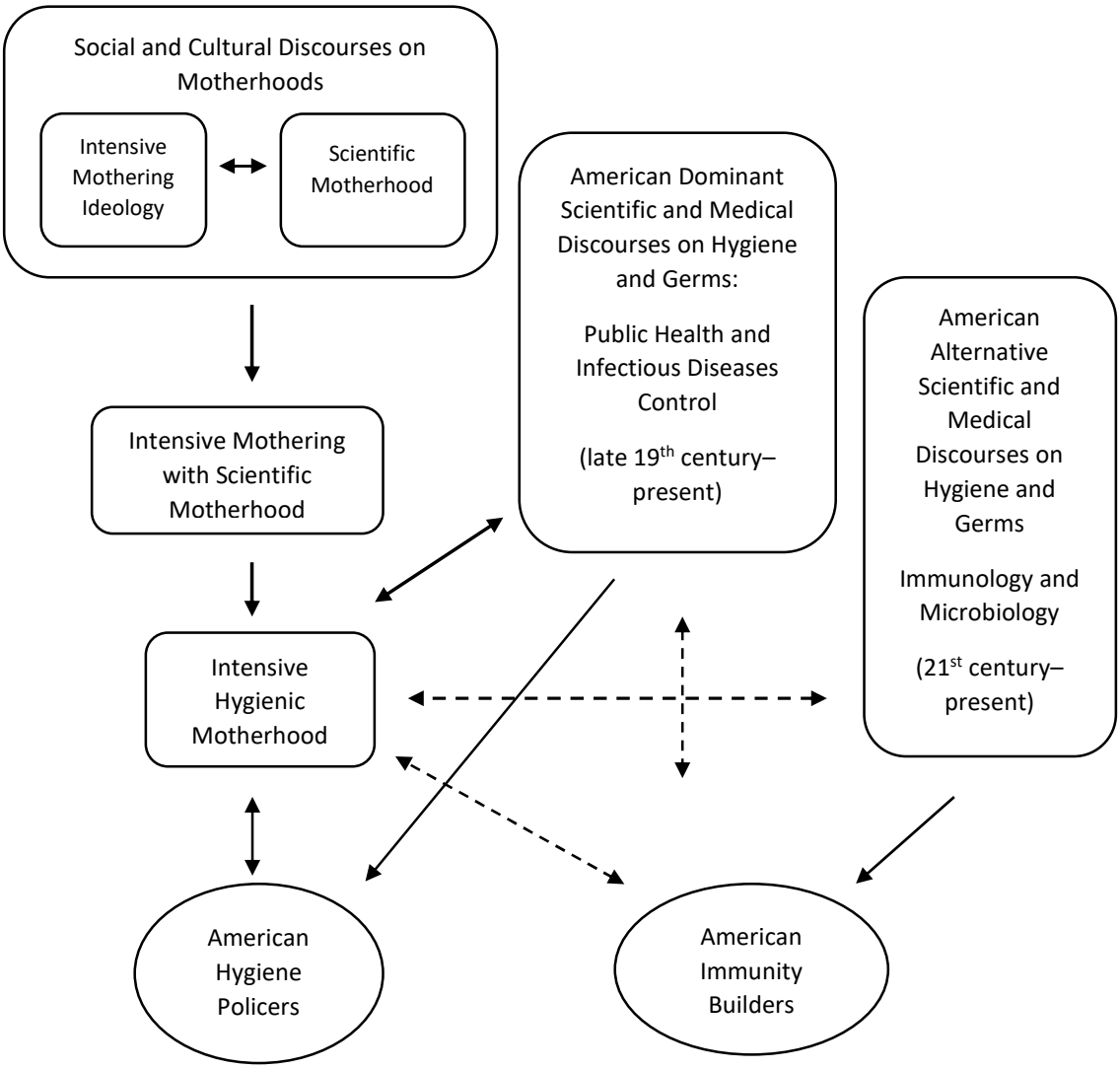

Figure 3 : Two ideal types of dirt management under the social and cultural discourses on motherhoods and American scientific and medical discourses on hygiene and germs

These ideal types are analytical tools to discuss mothers' practices, and mothers may rotate between them depending on the age of their children, economic/social/pandemic

contexts, or life course. Table 7 displays the differences between hygiene policers and immunity builders.

Table 7: Two ideal types of dirt management for parents

	Hygiene Policer	**Immunity Builder**
Attitudes Toward Scientific Knowledge	Science believers who follow scientific childcare advice	Science believers who follow scientific childcare advice
Drawing Scientific Knowledge from	The public health and infection control scientists on hygiene and cleanliness	The microbiologists and immunologists on dirt exposures
Roles of Germs to Parents	Enemies	Friends
Attitudes Toward Germs and Dirt	Fear, anxiety, and worry	Friendly and welcome without fear and anxiety
Relationship with Germs and Dirt	Cautious and avoidant	Fine with more exposures
Ideas of Disease	Bad; avoid sick and illness	Good; is part of life

Role of Mothers	Protectors who shield germs and dirt from children	Trainers who introduce germs and dirt to children to build immunity
Ways to Manage Germs and Dirt	Cleaning, sanitation, and disinfection	Early exposures to germs and dirt
Intensive Hygienic Motherhood	Engaged	Refused
Cleaning, Sanitation, and Disinfection	Heavily rely on hand sanitizers, bleach, disinfecting wipes, spray, or homemade disinfectant	Rarely use hand sanitizers, bleach, disinfecting wipes, spray, or homemade disinfectant
Ideal Childhood	A safe, clean, and healthy childhood	A happy, fun, and adventurous childhood
Playing with dirt	No	Yes
Hand Hygiene	Practice often. Washing hands with hand sanitizers and soap frequently, especially before eating.	Practice less. Don't use hand sanitizers. Feel it's fine not to wash hands before eating.
Bathe	Daily	1-3 times a week

"The Smallest Little Thing Can Kill Somebody": Hygiene Policing

Many hygiene policers hold deep fear about germs and bugs. Jessica, a 34-year-old married mother of a 4-year-old girl, the child of Asian immigrants who was born and grew up in the United States, [51] shared:

> Well, you know, especially these days. The smallest little thing can kill somebody. You have to be concerned with germs and the bugs. You got to make sure that if you feel like your child's going to get exposed to a germ or to something you try to limit that exposure or try to sanitize it as soon as she's exposed.

Jessica described her hygiene rules for visitors when her daughter was a newborn:

> If you had just traveled outside the country, you're not allowed to come. Immediate family only. And kids are very sensitive to germs. So, if you are sick or have a possibility of being sick, you're not allowed to come. If you have a cold, you cannot come and visit my home. You are not coming for the baby. That's nothing good for the baby. You can wait. Baby doesn't know anything right now. No one's gonna get hurt if you don't see the baby until she's a little older.
>
> And they have to constantly wash their hands. Before you come. If you want to hold the baby, you've got to make sure you wash your hands. And use the sanitizer. I had lots of sanitizers everywhere in the house. I had a lot of soap with anti-bacteria on it. I know you were just holding my child 10 minutes ago. But you might have just had touched something. So, you have to wash your hands again.
>
> Every single time [they want to hold the baby]. To go to wash your hands. … Cleaning tools were all lined up [for visitors]. You want to hold my baby. Sit down. I'll be setting up. Sit down. I'll hand it over to you. Put this on you. You're sure that you know your hands are washed, your hair is tied back. Don't kiss the baby like on the face anyway. You want to kiss the baby's hand. That's fine. Don't kiss baby's face. And if it was a female. You gonna make sure your hair is always tight up because there's a lot of issues. So, hair was always pulled back. You've got to make sure you have to have a cloth cover on that person

[51] Most (90%) non-immigrant American parents I interviewed are at least third generation (i.e., they and their parents were born and raised in the United States), few parents (10%) are second generation (i.e., they were born and raised in the United States, but their parents were foreign born).

> because you don't know if your child can have an allergic reaction to the piece of your clothing. So, you may have a wool shirt on. You know what, if your child is allergic to wool, you got to make sure that you have a burp cloth on to protect yourself. To protect your baby from that person's clothes.

Jessica considered her standards of child hygiene are higher than the ordinary American parents. Some of Jessica's rules seemed common. Among the 46 mothers and 11 fathers I interviewed, most had similar rules, requiring people to use hand sanitizers first to protect their newborns before they could touch them and barring sick people. However, some of Jessica's rules seemed extreme to people who are immunity builders, including no visitors who are traveling outside of the country, [52] tying your hair back, and wearing a special cloth when holding baby. Nevertheless, Jessica believed that babies are vulnerable, and it was her maternal responsibility to shield all possible germs and allergens from them.

Nichole, for example, a professor with two children, is White, married, and in her early 40s. She also emphasized hand hygiene and the need to enforce the rules even for her baby's other parent and sibling:

> I always just made sure I had hand sanitizer all over the place, and I made sure people washed their hands as soon as they came in. When my husband and daughter would come home from school, I would make them wash their hands and change their clothes before they touch the baby.

Jessica believed that her baby's health depended on her efforts to keep her away from germs. She summarized:

[52] Being out of the country may be too precautious or odd to many people as a rule. However, it may be less so since March 2020 after the outbreak of COVID-19.

> When it comes to your child, you gonna protect them. You're your baby's protector for her life. So. You might [be] afraid that it may offend other people. But, your main concern is protecting your child, then you have your priorities. So, it's always about your kids' health and happiness. [They] come first. So, you don't want somebody who probably has a germ to visit you. … I wasn't that really worried about hurting anybody's feelings because it's about my baby. The health of my baby. So, I don't really care. I felt that. [My attitude is,] how dare you say that [it's over-reacting]. Just take your personal feelings aside and be concerned about the baby. That's it.

Armani, who was Black and in her early 30s, a stay-at-home mother with one child made similar remarks. She also emphasized hand hygiene and the need to bar sick people. She explained:

> I would have hand sanitizer [on hand when people came to visit my baby]. Be like, "Here's hand sanitizer right there." And if I see them go straight for the baby, be like, "Nope, make sure you wash your hands. Wash your hands." So that they come in and wash their hands.

When I asked if Armani would ask people to wash their hands directly, she said, "Yes, definitely," and when I asked if she felt awkward about doing it, she said, "Nope, because it's my baby and I want to protect them." She even described reminding her husband to wash his hands when he got home from work. "Yeah, everyone follows the rules. I make sure they wash their hands."

Many hygiene policer mothers express a sense of pride in being the kind of mother who doesn't worry about how people feel when it comes to their kids' safety. For them, no one matters more than their child. They are their children's protectors who are willing to do anything to protect their children from germs. Even if it may require mothers to confront the conflicts.

Jessica was willing to offend her host when she went to a mom friend's house for a playdate. She explained why she held her baby throughout the visit:

> I couldn't get my baby to crawl in a place that was filthy. It was not a crawling space. … I couldn't stand for this. Dirty clothes, piled up on the couch. Your baby was crawling and there was a high possibility about the baby crawling, picking something up from the ground, and trying to put it in her mouth. … So, I was holding her and my friend said: put her down, let her crawl, let her crawl. I looked around and I'm like, no she can't. There were a lot of stuff on the floor, and she was gonna pick it up. She said: I will sweep it. I said: no, it's a lot of stuff on the floor! Her baby was crawling on the floor. But I didn't feel comfortable, so I said: it's fine. She's fine. You know it's your home it's your child. I am not gonna tell you what to do.

Jessica ended the playdate early. She turned down her friends' further playdate invitations at her house and proposed to have future playdate at the park or library.

Following Science

In my interviews, both hygiene policers and immunity builders said they were following science[53] in their practices with respect to cleanliness as well as other childcare practices. All the interviewed parents vaccinate their children. While hygiene policers referred to their doctors, online medical forum, older generations, mothers' groups (online and local), and cultural traditions to form their ideas of germs, dirt, and child hygiene, immunity builders reported that they collect information more from reading childcare advice written by medical or scientific experts. Unsurprisingly, hygiene policers

[53] Science consists of different subfields. Scientific knowledge is not homogeneous but heterogeneous. Different scientific fields offer different scientific childcare advice and knowledge on germs, dirt, hygiene, cleanliness, and child health.

and immunity builders refer to different sets of scientific fields and experts, as shown in Figure 3. While the hygiene policers say they follow advice from the medical experts on cleaning, sanitation, and disinfection, the immunity builders say they adopt the advice of microbiologists and immunologists.

Many hygiene policers shared that they were taking their doctor's advice or online information written by doctors. For example, when describing the importance of sterilizing her baby's bottles, Jessica said, "That's what the doctor said. Everything I read." Jessica sent me an article from the medical advice website WebMD: "Infections in small babies can be pretty serious. They can get very sick quite quickly. … Parents should be cautious to protect their babies from germs in the first three months—and if possible, the first six" (Griffin 2011).

Imani, a Black stay-at-home mom with three children in her early 30s, referenced following practices she observed in the hospital when her children were born as well as Facebook groups. Though she became an immunity builder later when her children got older, she was a hygiene policer when she had newborns. She shared:

> 'Cause you read all these baby books and these mom books, and I was on a whole bunch of Facebook pages for moms-to-be, and everything was just like, make sure nobody touches the baby at the hospital, and what if somebody is sick and then the baby gets sick? So, I was so paranoid with that. When I was in the hospital, nobody was allowed to touch the baby without cleaning their hands. And, nobody was able to see the baby at home without washing their hands. So, that was a big thing that we were really big on with Desmond [her first child]. Actually, when all of them were born, because they all have really bad immune systems.

The extremes to which hygiene policers went in their policing varied by circumstances. For example, mothers could act as hygiene policers when children are young, or during a

pandemic, whether the seasonal flu or COVID-19. A mother who was a hygiene policer when her first child was young may become an immunity builder when her child gets older and back to hygiene policer when she has a second child who was young. A mother may become an immunity builder when her children get older, in the summer when flu is rare, or when the nation finally gets COVID-19 under control. When social structures change, mothers may change their ways of dirt and germs management.

Nichole said that her son was born "right in the middle of flu season. … Germs. [I didn't worry] so much with my daughter because it was the summer. But for my son, they [husband and daughter] were coming in from school right in the middle of flu season and I didn't want those germs all around the baby."

When her baby boy was born in the winter, Nicole worried that her husband and her daughter might bring germs to the baby from school during flu season. Therefore, she asked both her husband and daughter to wash their hands and change their clothes before touching the baby.

Sara implemented more extreme measures when her children were younger. Sara is White, in her middle thirties, a homemaker with two children. She said that they (she and her son) only left the house for vital reasons ("To go to the doctor, something like that") for the first two months of her son's life. She explained: "The doctor told me to be careful until he was vaccinated at 2 months. And stay home because you don't want to expose him to the public, to the germs! Because you don't know who's sick. Yeah … after 2 months I still don't want anyone actually holding him if they're sick or anything like that."

Hygiene policers also tended to try to delay sending their children to group care situations because they saw daycare centers as "germ breeders," "germ factories," and even "germ warfare." Some stayed home for six months to three years, forsaking jobs, or found relatives or hired a nanny to take care of their young children. New Jersey supplements the federal Family Medical Leave Act, which guarantees most employees 12 weeks' leave without pay, with 2/3 salary payments for maternal and parental leave for six weeks, which parents can take consecutively to maximize coverage, but longer leave periods may be hard to take. Nichole was asking her mom to help her care her son and daughter, and she did not foresee sending them to any group childcare arrangement until they were at least 3 years old. She explained:

> I really don't want them exposed to all those germs and everything. … I mean with all the sickness, especially this year with all the flu, not that we're not bringing germs into the house, but the more I can decrease the opportunity for germs, especially while they're little, I think is a good thing. … I don't think I would ever send them to daycare. I would bring a nanny into the house but I wouldn't send them to daycare.

Katherine, a White professor with two sons, for example, went to enormous lengths to coordinate her work schedule with her husband so that neither of their sons (5 and 2 years old now) would have to go to daycare before they were 6 months old. She explained that she considered the daycare her sons attended thereafter to be "truly family" and "a wonderful group of people" who she "truly trust[s]." She also said that there's "something about … those first couple of months of bonding" with a baby. But infection also entered into her calculations; she said that the daycare "also has germs et cetera. … So part of it was I just didn't want to have to drop a 3-month-old baby off at daycare to be exposed to every germ known to mankind." Katherine also described cleanliness and

information about disease transmission as a positive feature of her children's daycare because the daycare center is well-equipped to win the "germs warfare":

> That's a reality of daycare. There're germs constantly. That needs to be monitored. I mean, that's kind of how it is in order to keep your kid from always being sick. … It's not 100% perfect, but yes. They actually even installed an air filter system that circulates the air and cleans it so that it's less likely for germs to go from one system, or from one room to another. … [Under state regulation,] if a child gets diagnosed with pink eye, they don't tell you who gets diagnosed, but they'll say like, "A child's been diagnosed in this classroom with pink eye. Here are the symptoms just so you know." They keep you updated with it so that you know to look for those extra symptoms. So, I do think they do a really nice job with that.

On the other hand, Katherine felt that hygiene practices could be too extreme. She said that she "struggle[s]" with daycares that remove toys for sanitization immediately after any child plays with them. "That's just extreme to me. Children need to feel comfortable and be able to play, and I think [my children's daycare has] a nice balance of, yes, they clean the toys every day, yes, they sanitize everything every weekend, but it's not crazy over the top extreme where the kids feel like they're almost in like a sanitary bubble."

Jessica expressed no such concerns about a sanitary bubble, though the practices she described seems fairly similar to those Katherine described:

> It's very, very clean. You don't smell anything. You look at the floors and you could tell they clean it every day and they actually, I think, once a week do deep cleaning where they have a big rolling garbage can. And I don't know what kind of solution they put in it. But they dump all the toys in there. So, they sanitize <u>everywhere!</u> So, I think once a week. That once a week, they do deep clean. But every day they do daily clean. They clean the facility. You can just feel it. … There's no dirt splashed against the wall. There are no dirty garbage cans. There's no old food that's on the ground. You know things like that. So, you go anytime, and it's just clean. You can just walk around really quick, and there's nothing dusty. People like this. There's no dust there. No.

Instead, Jessica believed that cleanliness is the first priority for a high-quality childcare because it is the way to make sure children will not get sick. Sanitation and disinfection are the two essential tasks daycare teachers need to do to win the germ wars and protect the children. While many immunity builders emphasized that their approach supported playing in nature, Jessica found a way to allow such play without violating her expectations. She said:

> If I have to choose between her playing with dirt or playing in mud or something like that, versus not allowing her to play in mud, I will let her play with my wipes ready. I will be like, "Go ahead, play in mud, but I will be right next to you with my wipes, with my little sanitizer, as soon as you're done, I'm going to clean you up."

"Germs Are Part of Life": Immunity Builders

Erin, White, in her early 30s, a married working mother with two young children, is an immunity builder. She explained: "I think germs are part of life in general. … I think there are good things about being outside, to be exposed to nature, and to be exposed to allergens. I think those are all good things. It's part of the world, I always joke, 'The only place where there's no mold and bacteria is in outer space because there's no oxygen.'"

Heather expressed similar sentiments. She is White, in her mid-30s, and has one 5-year-old son. She explained:

> There are bacteria on everything; our stomach has bacteria. Everything has bacteria. Your mouth has bacteria. Your body makes bacteria. So, parents really need to do research on that. Parents. Come on. Calm down. Really. Calm down. The bacteria are on everything, and parents need to calm down about it. It's like, your kid WILL get sick, you know. If your kids are sick all the time, then maybe worry about it. You know. But kids need to build an immune system. Trust me.

Heather also suggested that excessive sanitization can be dangerous. Given, she said, that germs are part of human beings, when people use antibacterial products to kill germs, she said rhetorically, “Don’t they also kill themselves?” Similarly, in an ironic metaphor choice, Rebecca, who is White, in her 30s, married, a working mother with a 5-year-old daughter and a 2-year-old son, said, “I avoid antibacterial products like the plague. … As an everyday product, absolutely not.” She said,

> Kids need to get dirty. Kids need to get germs. Don’t get me wrong. I don’t need you to sneeze on my child. But they’re going to share germs. They’re going to have runny noses. They’re going to play in the mud. They’re going to dig up worms. And they should. I really think that exposure to the world and to those microbes is really beneficial to their systems as a whole. To their immune systems, it helps boost them. … Your body needs to know what [germs] are and how to handle them. I really do believe in it [being exposed to germs] assisting in your immune system. And just like, your healthy attitude altogether.

Melissa, a White, working mother in her mid-30s with a 3-year-old son, also suggested being comfortable with germs and dirt is a matter of having the right attitude:

> We don’t need to be so afraid. Moms these days are so afraid of everything. Oh my God, you touched dirt! Yeah. So what? We touched dirt. We grew up, we are alive. Like, I ate a plant when I was a kid, I ate leaves off a plant, I scared my mom to death because I was eating plants. It’s silly, but like, we’re fine. We build immunities that way, we build up tolerances.

Melissa tried to encourage her son to play with dirt to have fun with dirt. She wanted her son to be an explorer who can enjoy nature without fear or anxiety. Melissa provided a lot of texture and sensory activities to train her son not to be afraid of the different grass, sand, or dirt surfaces. At the same time, Melissa was working against her gut responses. Melissa’s mother had high standards on cleanliness and hygiene with a low tolerance for dirt. Melissa’s mother was parenting before 1989, before the hygiene

hypothesis was introduced to lay population. Cleaning and keeping children away from dirt were the basic rules to stay healthy back then. Melissa was trained to stay away from dirt and germs. She explained:

> I'm a little bit germophobic, but I don't give that to him. Like. I'm germophobic for me, not for him. It's weird … but he doesn't need to do that, let him decide for himself what he wants. It's not good for you to wash your hands too much. Don't be afraid of germs, build those immunities. … You don't want to give them a phobia of germs. Right. Like, kids are going to grow up so afraid of germs, like "oh my God, I can't do this because I might get dirty." Well, you will not have fun.

Melissa felt that her socialization had limited her exploration of the world. She told me that she had obsessive compulsive disorder (OCD), as she said that she washed her hands "like a thousand times a day" and that she felt powerless not to do so. She didn't want to pass on her OCD to her son and tried her best to create an environment to encourage her son to explore without a deep fear of germs nor dirt.

"Even a Newborn Needs to Be Exposed to Some Stuff": Building Immunity from Infancy

Most immunity builders said they don't recall that they prepared hand sanitizers and asked visitors to use hand sanitizers nor wash their hands when they have newborns. When I asked Heather if she had any restrictions about who could visit her and her newborn when she brought her baby home from the hospital, she said, no, emphatically. She explained:

> As long as you don't mind, come into my house, we're in mud and dirt and junk. You might also get the dirt all over yourself. I'm not one of those that you have to

> obsessively clean your hands off before you touch my child. You know. I mean, really, like come on. … I mean, I trust that you would wash your hands before you touch my kids. … Again, the kid needs to be exposed to some stuff. … Even a newborn needs to be exposed to some stuff, you know. It doesn't need to be exposed to the plague. But I mean, it's fine with me if you want to touch the baby. And people are like crazy with that thing [cleaning hands].

Melissa also didn't have restrictions. She said that she and her husband took her son to the ballroom dance school where they were taking lessons when he was 5 days old, and she let everyone who wanted to hold him. When I asked her if she asked people to wash their hands, she said, quickly, "Get your immunities, kid." She said that she didn't have any restrictions, although she acknowledged she would not have wanted anyone to actually kiss her baby on the mouth, she didn't feel the need to say so because, she said, "I feel like because people are so cautious."

Similarly, immunity builders did not have hygiene policers' concerns about daycare centers. Rebecca sent her daughter to daycare when she was 6 weeks old. She told me it was not an easy decision because she felt that American society still expected her to be a stay-at-home mother to fulfill her maternal duty for her baby, but that her husband was very supportive. Also, daycare centers are expensive.[54] But germs and sickness in the daycare centers were not a big concern. She explained:

> Listen, every daycare's a petri dish, it's germ warfare. … For the first three months it's a new petri dish, and they're going to be exposed to all kinds of new germs and they're going to come home with something. … Your kids going to

[54] According to my data, the average rate for daycare centers is: infant (6 weeks to 12 months): $500-$600/per week; 1- to 1.5-year-old: $450-$550 per/week; 1.5- to 3-year-old: $400-$500/ per week; 3- to 5-year-old: $300-$400 per week.

> come home with illnesses. But … quite frankly, after a few months they're going to be immune to whatever's there.

Many immunity builders acknowledged that daycare was germy; however, it didn't bother them at all, because they believed that it's a good training process for their children to build up their immunity. Matthew and Ashley, both White, in their 30s, married for three years with a 2-year-old son, shared with me that their son got RSV (Respiratory-Syncytial-Virus) from being at daycare for three hours in his first day when he was 6 months old. However, this incident didn't change their decision to send their son to daycare. Indeed, germ exposure is not their concern at all. As Ashley explained, the main factor that made them decide to send their child to daycare is to see what kind of life she enjoyed:

> Ashley: So, we decided to put him in daycare because I wasn't sure if I would want to be home with him all the time. So I worked part-time to begin with, so I had a very flexible, very little stress job. I like the organization, they do good work, so I didn't really want to leave that. The idea was to go back for the two days, primarily just to get out of the house, and have the option of staying. … Because you don't know, are you going to hate being home with a baby all day? Or you might love getting out of the house or you might hate being back at work and then decide to leave. But it leaves your options open more. We went in with that kind of idea, that I'd go back for the two days.
>
> Matthew: And I also support that decision because I think it's good for her to get out of the house and to not go crazy. … My opinion is even if you weren't working, just to put him in daycare for one day a week or something, even if it's losing money to work or you can do whatever. It might be worth it just for your mental health.

For immunity builders, germs and illness are not negative, but part of childhood. It shouldn't affect parental childcare decisions nor stop children from going outside, playing with other children, or getting dirty. Katie explained:

> Sickness is a part of childhood. It sucks, but like … it's not worth it to never go out and never do anything because you're scared of getting sick. I mean, it's one thing if it's a 2-month-old baby or it's a baby with a heart defect or a child with a heart defect, but for three normal, healthy, larger children … It doesn't stop us from playing.

Katie's understanding of sickness reflected her philosophy that playing outside is important for children, and it is not worth keeping children indoors because of the worries of being sick. Sickness is a normal part of children's health, and parents need to let their children be more comfortable with it.

Alicia, a White stay-at-home mother in her late 20s with a 1-year-old boy, scheduled a lot of playdates for her son as a means to boost his immune system. Alicia shared:

> Kids pass germs like insane, constantly. Your child is going to be getting sick. But I do think it's also important. Owen [her son] is around children a lot. So, his immune systems are really great. … He is always outside, always outdoors, so it's good. My [3-year-old] nephew, on the other hand, gets sick the second he walks across the street to another child because he never went out. He was never around other children. … Your child needs to build their immune system. You have to take your child out. If you keep them in a bubble, the second you take them out of that bubble, they are going to get sick.

Alicia's view contrasts sharply with hygiene policers like Jessica.

Hygienic Motherhood, Labor-Intensive Cleaning, and Responsible Mothers

Under intensive hygienic motherhood discourses, good and responsible mothers work hard to create a clean and sanitized child-rearing environment with hygienic childcare practices for healthier children. Doing so makes them feel like responsible mothers who have done their best to give the best to their children. By contrast, immunity

builders have higher tolerance for dirt and refuse to engage in labor-intensive cleaning. They identify themselves as “laid-back” and “not obsessive cleaners” rather than thorough and obsessive cleaners.

“A Lot of Work, Constantly”: Disinfecting Routines among Hygiene Policers

Most hygiene policers said their standard for cleanliness increased once they knew that they are expecting children. They try their best to fulfill the intensive hygienic motherhood discourse on chasing dirt and keeping clean with nonstop cleaning tasks. Nichole explained:

> I definitely became more attune to cleanliness once I had my kids … because of germs. … I Clorox all the countertops at night. I clean the bathrooms. I Clorox the bathroom sinks probably daily. I'm always wiping down the doorknobs. I’m spraying Lysol in the house. … All the toys and stuff … clothes and towels and burp cloths and anything they spit up over. Yeah, just all that laundry. Pants and things, they wear…

For hygiene policers, a good mother should keep the environment sanitized and sterilize baby equipment. Imani described her daily tasks:

> I just scrubbed everything. I’m a big bleach user, so I cleaned everything with bleach and with Lysol, and that’s just how I cleaned everything. I had little bottles of hand sanitizer by the bed and everything for people to use. So, yeah, I was big on people cleaning their hands and then not wiping it on their pants. I’d be like, no, do it again. You know, things like that. We were really big on that. And, my husband as well. He was big on that, too, when he was home.

As Imani’s comment about her husband suggests, the primary responsibility for cleaning falls to mothers. Nichole did exclusive pumping and bottle-fed without

nursing to offer her son breastmilk until her son turned 1 year old.[55] She completed a lot of cleaning and disinfection work to ensure all nursing equipment was disinfected. She described:

> I was pumping like six or seven times a day, and you'd have to sterilize it after every time. … So, I would wash it, and then I would run it all through a bottle sterilizer. I would sterilize all the parts. The bottle, the shield that goes over your nipple, that all goes in there. Well, I mean cleaning the bottles and sterilizing all the bottles. And just cleaning, just sterilize everything and making sure surfaces are clean and washing all their clothes. … A lot of work. A lot of work. Constantly.

Nichole was attuned to numerous details of proper sterilization, including how to dry nipples, bottles, and breast pump parts efficiently and hygienically.

Jessica underscored the importance of sterilization with bottles as well. She shared:

> I used special cleaning stuff, like baby dish soap to wash any of her bottles and everything like that. But, using regular soap is fine. Just make sure you always STEAM. … [Y]ou buy a steamer from the baby's store. It looks like a cover. You put all children's spoons, all bottles. And anything like that. You put it in the microwave. You put it for three minutes. It steams. You always steam. If you didn't have that, all you have to do is putting stuff on the stove and a boiling pot of water. Put all their stuff in there and then go to boil all the germs away. After you wash and you steam… And you do it up to your child is 1 year old… I know some parents still steam everything until like 4 or 5 years old.

A growing child might require intensification of cleaning, at least to begin with. Nichole explained she started to pay more attention to the cleanliness and hygiene of the floor when her children began crawling:

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[55] Nichole's son had a latching issue; therefore, she had to pump and bottle-fed him. Nichole chose to continue bottle-feeding her son with pumped breastmilk because she wanted to provide breastmilk to her son even when she was back to work and away from her son.

> Because of all the things [babies] pick up off the floor when they're crawling and putting in their mouth. So, my house is never as clean as [it was] when my kids [were] crawling because you're just worried about them picking up everything off the floor. Even today, every morning, I Swiffer [dry mop] my entire house, which I never did before I had kids.

Jessica described her efforts to keep the floor sanitized when her daughter was crawling thus:

> When she was crawling, shoes were not allowed. You had to take your shoes off right at the door. We would sweep every day because you didn't know what would fall on the ground, but even if it's a piece of food, you don't want your baby to get a hold of that. So that's when you had to make sure everything was swept every single day, there was nothing small… When she was starting to walk around, that's when I kind of, "OK, she's not always on the floor anymore." So maybe I don't have to sweep every day, maybe every other day or something like that.

While some hygiene policers adopted labor-saving devices such as robot vacuum cleaners, there was no question that managing dirt and germs by cleaning, sanitation, and disinfection tasks and creating a clean and hygienic environment placed a significant burden on hygiene policers.

"You're Not Building Up Any Immunity to Anything": Immunity Builders' Failure to Clean

Melissa refused to use any antibacterial products, including Lysol, Clorox, or hand sanitizer, as she saw them as harmful, she said that she would give her son "bacteria soaps and things like that." She explained,

> I wouldn't use anti-bacteria products on a baby. … Your body … and dirt is natural, but those [anti-bacterial products] are very chemical-based. I don't know

> if it's true, but we should stop using the hand sanitizer because we can't build our immunities when we are on it. Why do we need to use it? We can do amazing things with chemicals. … But my son doesn't need it.

Heather was more gung-ho about the hygiene hypotheses. She embraced dirt and germs, described herself as "laid-back" and not "an obsessive cleaner." When I asked Heather about her standards of cleanliness and hygiene, she laughed, saying, "You don't want to know." She went on,

> You know, it's a lot of work [to keep up a high standard of cleanliness]. … And, you know, your kids do need to be exposed to germs. Because that's how they're going to build their immune system. … We have cleaning products but I'm not an obsessive cleaner. Well, put it that way, if there's a mess, we'll clean it up. But yeah. But I'm not an obsessive cleaner. … I don't understand the point of it. You know, let's obsessively clean stuff. Why do we need to do that?! I mean I understand [if] that['s] your hobby. But, don't make your kids do that.

Heather not only violated the dominant maternal expectations on cleanliness, hygiene, and childcare, but she questioned other parents' choices.

Immunity builders also felt that other parents had excessively high standards for hygiene. When I asked Heather about her hygiene standard for her son, she laughed and said "You don't want to know," again. Then she explained:

> When they're younger, you know, you should brush your teeth at least once a day, at least. You know, you should bathe at least once a week. I mean, I know people [believe] like, oh, they should bath every day. But that's not the truth. The doctors tell you that's not the truth. [Children] need to build up the oils on their skin. They need to build up. Again, the same thing [as with cleaning]. They need to build up an immunity and build up this stuff. Even people will tell, you don't wash your hair every day. To adults: don't wash your hair every day. You know you need to build up the oils, so your hair stays healthy. So, that's my thoughts on hygiene.

Rebecca also compared her standards to others'. She explained:

> I mean, I've known people that wash their children's hands every 20 minutes. Oh my God, they're always washing hands, and they're sick all the time. Oh my God! They're constantly washing their hands, and I'm like … Is it doing any good? As I said, they have the wet wipes on and hand sanitizer. But I'm like, you're not building up any immunity to anything.

Katie, White, a writer with three children under age 5, who lives in a nice neighborhood, described her children's bathing routine thus:

> So, in the winter it's every two or three weeks. In the summer, it's any day that we do something messy, which is most days. … Like, what I showed you the picture of them rolling in the mud, that's messy. Or, like them running through the creek, but even then, I'm not good about it. Sometimes, if he's [meaning her younger child] really tired and things are really crazy, I'll skip a bath even if they've been in the creek and it's bad. So, I'll bathe them … and, I'll turn the bath on and these two [her two older children] will climb in and out sort of at will and I don't have to sit there and bathe them, they'll just sort of do their own thing, her [4 years old] more so than him [3 years old], but he's getting there too.

Similarly with respecting to handwashing, Katie said:

> Do I wash my hands before eating, do I wash their hands or clean the table and things like that? No, we should. We should. We don't … No. I mean, I should be better about handwashing. There're only so many things I can care about and police, and handwashing is just not something that I'm good enough about. But it is what it is. They're all fine.

For Katie, not bathing her children more often had more to do with exhaustion than feeling that it was better for her children to be dirty, as her description of herself as "not good about" getting them to wash frequently and of not bathing her son when he'd been in the creek as "bad" suggests. On the other hand, she described herself as "laid back" and as not "hav[ing] many rules" about hygiene. If Heather's only discomfort about her practices was a humorous one, and Kate genuinely seemed to feel it might be better if her

children upheld a higher hygiene standard, neither woman was particularly concerned about germs or their children getting sick.

*"*I Think It Is Important for Their Development to Explore": Immunity Builders' Views on the Importance of Exploring Nature

Beyond building immunity and fearlessness, immunity builders felt an obligation to introduce their children to nature. Katie arranged her children's daily schedule to create more opportunities for them to go out and explore nature. Katie shared:

> We go to the forest school on Mondays. So, we are in a hiking group and we meet on Mondays. So, we go to sort of like an informal preschool thing that's run by other moms on Mondays in the forest, that's why it's called forest school. … Tuesdays we go to a farm that we belong to and we pick [fresh produce]. … Wednesday's usually like an errand day for us. …We go to the creek [near our home] a lot too. We go to the creek on Thursday, Friday. … So, we'll play at the creek, usually Thursday and/or Friday, and we spend like all day there.

Based on the belief that playing outside and embracing nature was good for children, Katie organized her children's daily routine to explore a different part of nature. Katie wanted her children to play, explore, and learn in a lively natural setting. She hoped this would make her children comfortable playing in the dirt, digging in the mud, exploring the texture of nature, and encountering various microorganisms. Another benefit, she said, is that because she always described nature verbally to her children, she told me that her children's vocabulary "is incredible."

Angela lived in a nice neighborhood. She is White, married, and in her 30s. She said that her three sons' favorite place to spend their time was local playgrounds and parks. She described:

> I let them crawl and dig and get in there because I think it is important for their development to explore. So, I am okay with that. … Since Henry [her oldest son, now 4.5 years old] was about 7 months, we would just take him to the park and put him in the grass, and he would just be crawling all over the grass. … They're getting sensory experiences by in the grass, exploring. I mean, there are other things to do besides the playgrounds. So just even crawling around, they're getting those sensory experiences.

Taking children to local playgrounds and parks is very common for most immunity builders. Alicia, another immunity builder, took her son to a local park "all the time," to give him fresh air and burn off his energy. She shared:

> I would say that every day that it's nice we make sure to go to the park. … As soon as he could sit up on his own. I had a mat that goes on the ground. I would bring books and toys, and we would just sit out. I think it's great for him to be outdoors. Get his energy out. He loves the swings. … He sits on the grass. He likes to feel it. … I do a lot of texture stuff for him. So, he's not afraid.

By bringing her son to the local park, Alicia creates an opportunity for her son to feel nature. She provided a lot of texture and sensory activities to train her son not to be afraid of the different surfaces of grass, sand, or dirt.

For immunity builders, a good mother is a mother who trains her children to build up their ability to deal with different situations. The higher tolerance for germ and dirt exposures, narrower interpretation of dirtiness, and normalization of childhood sickness freed immunity builders from anxiety and stress caused by the omnipresent germs.

“I Feel Like I’m in the Minority”: Immunity Builders’ Experiences on Being Judged

Nevertheless, immunity builders’ deviation from dominant norms of keeping their children clean in their daily childcare practices made them feel marginalized and judged when they were frowned at by other parents in the public space.

Angela, mentioned earlier, brought her children to local playgrounds since her oldest child was a 7-month-old. However, she soon noticed that it was not common in the area to let a baby crawl on the grass, she described:

> Since Henry [her oldest son, now 4.5 years] was crawling, which was 7 months, we were bringing him to the park to crawl. And I guess we don’t see a lot of other parents doing that, I guess around here especially. I don’t know other areas. We felt like we were the only ones who didn’t go straight to the playground, and we went to the grass to play. … I feel like I’m in the minority by letting them play in the dirt too.

I asked Angela, what did she mean by “minority,” she explained:

> I guess we’re just more okay with them exploring nature. I will take them for walks and they will go splash in puddles, and pick up sticks and rocks, and use their sticks to splash in the puddles. I guess that’s what we just did two days ago. I guess I feel like I’m one of the only parents allowing children to do it. … By letting them be exposed to nature. … ’Cause numerous times we go to the park, they’ll be the only kids playing in the park. And someone will come up to them and try to play with them and their parents will yell at them. They’ll be like no, get out of there you’re gonna get dirty. So, I never see other kids playing with them in the dirt.

Angela felt her high tolerance of dirt and willingness to let children explore the nature made her a minority in a society that values hygiene and cleanliness. It seemed to be a little disturbing for Angela to feel that they are different from the majority. She then continued sharing another couple of examples with me:

> I don't know if it's an area thing, but a lot of parents around here, if their kids will touch dirt, they'll tell them to stop or remove them. … I've heard my boys will be digging in the dirt, and then another kid will come up to play in the dirt, and the parents will come over to remove them from the situation … Some were grabbing them from the dirt or just telling them to come back. … They [the parents] physically walk them away or tell them: no, you don't wanna get dirty. … And I guess germs, a lot of parents are hyper-focused on germs.

Angela felt that she was judged as an "irresponsible" parent for letting her children play with dirt. However, neither Angela nor Angela's husband accepted the label of "irresponsible" parents because they believed that exploring nature under their watch benefits their children's development.

Katie, another mother mentioned earlier, shared a similar experience of feeling that she was judged by other parents as an irresponsible mother when she brought her children to the neighborhood playground and let them play in the dirt. When Katie's children play with dirt in the park or playground, other parents felt awkward, gave her "dirty looks," and even seemed "mad at her." Katie described her experiences:

> Parents are weird about it. ALL THE TIME. They'll be like, "Your baby is eating wood chips." I'm like, "I know. That's okay. He'll spit them out."… And, then she [another mother] carried him out of the wood chip area and brought him to me, and I was like … what the hell?! She thought I was like a negligent mother. So, she was like, "Well, if this woman's not going to take care of this child, then I will." And, she like picked him up and brought him to me, and I was just like, "Thanks." Like, there is a rhyme and a reason for what I'm doing. He's learning texture, and dirt is not a bad thing. It protects them from a lot of stuff. There's science behind this; I'm not just lazy. But, like whatever. I just said, "Thank you." She gave me dirty looks the rest of the time, and it was fine.

> There's a lot of people that get sort of mad [at me] because they don't let their kids do that, so it's not fair, they think, that their kids have to follow and mine didn't. Like, my kids get to splash in the puddles and play in the mud, and it's not fair to their kids that they don't get to do that, but that's not my problem. Because they're telling their kids, "No, no, no, you can't do that." And, my kids are allowed to do that. So, the other kids are like, "They get to do it, why can't I

> do it?" So, other parents will kind of be like mad at me … because I'm sort of making their lives harder, but like that's not my problem. Childhood is supposed to be messy and fun, and if you want to not be fun, that's your business, but it's no problem. … At the playground, my kids will be playing in the mud or in puddles, and parents will say, "No, no, no. You're not allowed to play in the mud. You're not allowed to play in the puddles," to their kids. And, they'll kind of look at me like my children are like crazy children. And, I'm like, well a crazy mom.

Katie was told by a woman that her child was eating woodchips. Katie didn't stop her child, so the woman removed Katie's child and brought him to Katie. Katie felt that she was judged as a "negligent" mother because she let her son eat the woodchips and the dirt. However, Katie didn't take the label of "negligent" mother nor did she feel upset about the woman because she knew what she did was good for her child's health, which was supported by science.

Nevertheless, being constantly judged and even corrected by other mothers at the neighborhood playground, Katie decided to only go to the playground with mothers who were "outdoors minded" and shared similar values about dirt and mud. Katie explained:

> I have a couple of friends who I won't go to the playground with them anymore because they just follow their kid everywhere. … They were very concerned with kids getting dirty. … So, the nice thing is a lot of our friends are from the hiking group. So, they all let their kids play in the mud, and they all let their kids play in the dirt because they're very outdoors minded. So, it's nice to have other mom friends that are like, "Yes, we'll play in the mud." And, it's hard to find other parents that are okay with it also.

Responding to the label of "irresponsible" and "negligent" mother, Katie chose to hang out more with mothers who were similarly "outdoors minded," to build a

community, to get more support to continue her beliefs of embracing dirt, playing in the dirt, and having fun.

Social Structures Behind the Hygiene Policers and Immunity Builders

Mothers live in specific social, cultural, economic, and health contexts and are located in the intersections of different social structures. This section describes how the social structures of intensive hygienic motherhood shape mothers' dirt management.

Cultural and Medical Rooted Caution and Anxiety—Expressed as Cleanliness

In the American culture, being dirty is associated with messiness, a lack of control, disorganization, and danger; meanwhile, cleanliness is associated with caution, vigilance, organization, and safety. The dominant hygiene discourses emphasize the correlation between dirt, germs, and infections, leading to the understanding among hygiene policers that contact with germs will cause illness. My observations suggest that mothers use cleanliness to manage risks and uncertainty if someone in their family is experiencing health issues or experienced them in recent years.

For example, a couple of hygiene policers described rocky infertility journeys. After multiple fertility treatments, both felt that it was "a miracle" when they got pregnant. Once they confirmed their pregnancy, the next step was to protect their baby. Katherine was one of these mothers. She and her husband went through several in vitro fertilization

(IVF) treatments. Knowing that she would be a mother made Katherine feel that domestic cleanliness was her maternal responsibility. She said,

> I was always worried [throughout my pregnancy] that the house would be dirty and then I'd be coming home with this newborn. So, I was always making sure like things were vacuumed, and … again, because we had the two dogs, we were worried about the dog hair. Especially [in] my seventh and eighth month, I can't tell you how many times I cleaned the bathroom, and just things like that just to make sure it was clean and ready to go.

Katherine connected her anxiety about cleanliness to her difficulties with fertility. She said that her concerns were "just because I had had a lot of things go wrong," including two miscarriages, which she blamed herself for. Cleaning and sanitizing her home were ways to ensure her newborn grew healthfully and hygienically.

Leah is a White, married, and mother of two. She was engaged in intensive cleaning and practiced the hygienic motherhood due to the medical issue her daughter had when she was born. She was very careful about germs exposures. She explained:

> I wouldn't take her to the malls. I wouldn't take her grocery shopping. She would really stay home. It was really only to the pediatrician, to her orthopedists. … We waited for the first round of the vaccines to kick in, and then just so she was like a little bit older instead of being so fragile, especially because she had a broken, chipped, broken collar bones. I had to hold her differently and get her dressed differently. It was just like a whole other process, which made me a little [stress out]. It wasn't as bad as it could have been, but that was, that was really why I am careful about the germ exposure.

Other hygiene policers reported that their children had health issues, such as being born premature, hip dysplasia, femur fractures, ADHD, Autism, and allergy. These health conditions seemed to increase mothers' concerns about germs and dirt, and thus their propensity for cleaning and sanitation. They believed that they were helping their

children to grow up healthfully by protecting them from germs and dirt exposures. By contrast, most immunity builders had not experienced any fertility issues or health issues for their young children.

Other factors also tended to align with whether a mother was a hygiene policer or an immunity builder. First-time mothers tended to be more likely to be hygiene policers, perhaps because they lacked confidence, and cleanliness and hygiene are the cultural and medical default suggestions for childcaring. Imani described her journey thus:

> I was a big nester for my first one. I was so paranoid of germs and everything, and then, as the second and third one came, I nested a little bit less because I was a little bit less paranoid. … I guess it's like first-time parent paranoia. We were just so paranoid. Like I said, it did decrease a little bit with each kid. I hate to say that because you should be cautious for every kid, but I think the fear is diminished a little bit once Andrew [her oldest son] was in the world, 'cause you don't know what to expect. You have this baby growing inside of you, and you just don't know what to expect. And, that was our fear of, what if the baby comes out healthy, and somebody gets him sick? And then, you know. It was a big fear.

Experienced mothers became more relaxed and laid back about germs and dirt because they knew that germs and dirt exposures would not harm their children.

Katie's case also seems to suggest that women with multiple children find it simply too exhausting to enforce frequent hygiene routines. This was certainly the case for Alexis, a 25-year-old White woman, married with a 1-year-old daughter. Alexis told me that she was very anxious and worried about germs as a first-time mom when her baby was born. She had engaged in intensive cleaning tasks to show other people that she could do it as a good and responsible mother. But soon, Alexis realized it was too exhausting, and it's impossible to create a germ-free environment. After trying to fulfill the expectation of intensive hygienic motherhood, she realized that she couldn't do it

anymore. Likewise, she described her own childhood playing outside with dirt and enjoying getting dirty as a happy one. Alexis chose to go back to work instead of being a stay-at-home mother with nonstop cleaning tasks. After returning to work, Alexis felt that she didn't have time and energy to clean and sanitize constantly. Alexis sent her daughter to a daycare center, changed her understanding and interpretation of germs, and lowered her expectation toward cleanliness and hygiene. She shared: "I mean, really, germs are everywhere. I can't be one of those moms that scrub every single thing wherever I go, you know what I mean, just so she can sit down. You're going to be around germs, period. That's what I'm saying. I'm just a very laid-back mom and just very comfortable with dirt and germs."

Alexis focused more on quality time with her daughter than spending all her free time on cleaning and sanitation. She gave up her high expectation of keeping the house clean and sanitized all the time. She still cleaned her house, but in a more "laid-back" way. She became more comfortable with germs and dirt and no longer "scrubs every single thing." Understanding germ exposures as helping child build immunity, made Alexis feel free from the fear of germs and the anxiety of not being a good mother.

The Economic Cost of Children's Illness and the Education Level

Normal childhood illness can be a significant problem for parents who have jobs, who depend on daycare to take care of their children, as daycares bar sick children. Under the asymmetric gendered childcare responsibility, in the dual earners' households,

mothers are the ones who often take days off to take care of sick children. To avoid this, many mothers become hygiene policers just to avoid illness in the short term.

Jenny is an Asian, married mother of two children, in her mid-30s. She had a high standard for cleaning and keeping her house sanitized with Clorox, Lysol, and bleach to protect her children from getting sick. One factor that motivated her hard work on cleaning was the cost of sickness. She said: “Because if they [her children] get sick, they can’t go to their daycare, and it is hard on us, actually, on me. Because it would be me [not her husband] to take a sick day. If they get fever, they can’t go. If they have diarrhea or vomiting, they can’t go. If they have rash or pink eye, they can’t go. So, basically, do not get sick!”

Briana, a Black, married mother of four, is a registered nurse who shared similar thoughts on why she had higher standards of hygiene. She described herself as a “big cleaning person” who has “always just been very strict or disciplined about cleaning.” She explained why she works at times when her husband can be home with her children so that she can avoid sending her children to daycare where they will only get sick and require her to take time off work:

> Germs are my number one concern. In daycare especially, children get sick so often. And then you, as a parent, are having to take off work because you have to stay home with your kid. And with me having four, for every one that gets sick, that’s more time we have to take off work, so that’s also another reason why it’s just been easier to be home. … Like I said, for my career, I’m a nurse, so I could work at night, I could work in the evening, I could work on the weekend. … The hospital would send me an email at the beginning of the month and say, “These are the shifts that are available,” and I could say, “Okay, I can work this one, this one and that one.” So, every month, I would just say, “I’ll work this one, this one, this one,” according to how we could work it.

Briana's decision reflected the fact that both she and her husband believed that it would be her responsibility to take days off to care for the sick children. The high risk of getting sick in daycare centers, gendered asymmetry of childcare responsibility, and economic concerns pushed her to have a higher standard of hygiene because she doesn't want her children to get sick and need to see doctors.

On the other hand, when mothers have financial or spouse's support to deal with the sickness caused by germs, they are more relaxed about the hygiene standards and are more likely to become immunity builders. The equal parental childcare responsibility takes the burden of caring for sick children alone from mothers.

Parental educational level is another factor that led parents to become immunity builders. From my interviews, all parents with high school diplomas are hygiene policers. Most parents who hold graduate degrees follow the hygiene hypothesis and believe that diverse germs and dirt exposures are good for children's health. It is possible, the higher education level a parent holds increases the chances for parents to receive the information of hygiene hypothesis. Also, parents with higher educational attainments may live in relatively sanitized and clean neighborhoods where germs and dirt exposures are relatively safe and natural, as discussed in the next session.

The Impact of Racial and Class Inequality

The third structural factor that pushes mothers to become hygiene policers related to racial and class inequality. Minority mothers in a lower income bracket[56] were more likely to report that they prioritize hygiene and cleanliness. Beyond concerns about having to stay home with a sick child and thereby jeopardizing employment, minority working-class parents were more attuned to the domestic cleanliness and child hygiene under the services (and surveillance) of social workers and public health officials.

Jada, Black, in her mid-30s, with two daughters, was very nervous about her domestic cleanliness and hygiene when I interviewed her at her one-bedroom apartment located in a poor neighborhood. Before my visit, Jada asked me if I could come to her place because she didn't have transportation go somewhere to meet outside. When I arrived at her home, she told me that she just cleaned her house thoroughly for my visit. I asked her why. She said her daughter was in an early intervention program offered by the state government for children who might have developmental delays. Her daughter had occupational therapy, physical therapy, speech therapy, and developmental intervention. These therapists and teachers made reports about her daughter's development as well as her childcare practices. They suggested that she clean more often for a clean and sanitized environment for her daughter to grow up healthfully. Therefore, she was a little nervous about my visit, wondering if I would make similar hygiene inspections and

[56] That is, families whose yearly household income is two-thirds to equal the national median. According to Pew research center (2020), in 2018, the working-class income range was about $19,000 to $48,500 annually for a household of three (in 2018 dollar). In 2018 New Jersey, a family of three whose annual household income is between $20,800 and $55,700 is considered a lower-middle-class family. And $30,500 to $ 64,400 for a family of four to be regarded as a lower-middle-class family.

childcare reviews of her to see if she was doing things correctly to care for and help her daughter grow up healthfully. I told her that I would not make such a report nor assess her performance as a parent.

It seems that Jada's race and class, plus her daughter's medical issues pushed her to become a hygiene policer. Her fear of being judged as an inadequate parent and her worry that the state might take her children away for inadequate care if the medical officials reported her pushed her to clean her house more often and keep her children clean all the time.

Furthermore, minority working-class mothers became hygiene policers due to the environmental inequality mediated via racial and class disparities among neighborhoods. The environmental inequality and health hazards related to unsanitary public spaces minority working-class parents encountered and experienced in their daily lives played a role in pushing them to become hygiene policers. About one-fifth of parental interviewees (13 parents, and 12 of them are minorities) live in relatively "not that nice" to "fair" neighborhoods with poor public schools. These neighborhoods are relatively "nature deprived" areas with limited (or no) access to green spaces (parks, garden, lawn, or woods), playgrounds, trails, paths, community yards, or farmer's markets. Giving their children access to green spaces requires relatively long drives. They all managed dirt carefully and interpret cleanliness and hygiene as a symbol of nice quality and safety. All of them are hygiene policers.

Jada, Black, in her mid-30s, with two daughters, is a good example. When I asked her how often she brings her children to local parks or playgrounds, she said: "I did that

in the summer … not too often." When I asked her why, she explained that she feels she has to be "vigilant" because there could be broken glass in the playground. "It's a public playground, you never know who's putting stuff there. So, you just have to be careful," she said.

Another Black mother, Jasmine, with three children, in her mid-30s, also said she rarely goes to parks or playgrounds:

> Not very often … I would like to just keep them in the park area. … If they're gonna play in the grass, we have a field at our house that they can play in. We have a little garden over there. I'd prefer if they played there … not in the park's grass. … You should be mindful of where you're putting your kids … If it's a park with needles on the ground, or rusty things, of course, then you should really not put them there.

Jasmine preferred to keep her children playing in the little field at her house rather than bringing her children to local parks or playgrounds. She told me that she had encountered needles, rusty facilities, and trash in the park and playgrounds. Therefore, she did not consider the local parks and playgrounds to be clean or safe.

Rosa, who is Latina, in her mid-30, with six children, drove her children to better parks:

> I make sure when I take my kid outside, my 2-year-old, I have his bike, or I have a bag with a ball, take him out to the park. And not just any park, either. I can't stand most of the parks here. I take him down to Passaic, and I'll just take him there. It's very nice, very clean. I take him over there. Very nice park, very good facility, everything is good.

She said that she had seen people smoking marijuana and littering in the park near her home. Similarly, Terrell, Black, in his late 20s with two children, who was cohabitating

with their mother, told me that they had bad experiences with the local parks and playgrounds in their neighborhoods:

> There's been certain parks where we'll go, and the slide, it'll be a lot of mud. The playground there'll be a lot of garbage, like out there and here. Garbage, and stuff flying, and there'll be diapers out there that parents didn't throw away. Or there'll be bottles, you know, just make it look very unsanitized. So, we would say, "You know what, not this park." We'll stay away from it. … We try to always find a clean park for her. Nice and sanitized. Just where she's not vulnerable to seeing those things, and catching any infection or anything.

These parents have access to parks and playgrounds nearby, but they consider them unsanitary. Poor maintenance of public space near their homes caused them to associate dirtiness with playing outside.

When I asked Jada if she would let her 2.5-year-old daughter explore on the ground, she said:

> Maybe just for a few seconds, just so she can feel the texture of it. … I would stop [her] if she is playing with dirt. Dirt has so many things inside it. You cannot see with the natural light. I'm not going to allow her to play with dirt because … those things carry parasites, tapeworms. … You don't want them getting sick. … So, yes, I will stop her.

Jada valued the textural aspects of dirt, but she considered it a source of illness.

Similarly, Kiara, Terrell's fiancée, who was also in her 20s and Black, had negative interpretations of touching dirt, digging on the ground, or crawling in the grass. When I asked if she stops her daughter when her daughter wants to play with dirt, dig on the ground or crawl in the grass, she said:

> Oh definitely. That's a big concern. If she's on the ground, or she's going towards dirt, that's a no-no. … Just because the dirt can get between her nails, unsanitized, she can get very sick. We don't know what's in the dirt, or the ground. … No. No

> crawl in grass. Unless we have a blanket down, then yeah, if we're having a picnic blanket or something, then yeah. But she can't crawl in grass. It may have a lot of dog poops and pees. It's dirty.

Rosa also reported that she didn't let her children play in the dirt. She shared:

> No. I do not let him play in the dirt. I do not let him sit down on no ground and play. I find it like, a lot of people spit, pee, everything all over the place. You don't know what can be on the floor. Right now, we're in an area that everybody loves drugs. You don't know where your child could sit on the ground and find a needle, other dangerous stuff, or germs. It's nasty. I wouldn't let them play in the dirt.

The filthy public spaces push these parents (especially mothers) to become hygiene policers. Living in a relatively "nature-deprived" neighborhood, cleanliness and hygiene became meaningful symbols and criteria for those parents to ensure that their children are in a friendly and good place. To avoid potential dangers, including germs, glass, needles, and trash, these mothers manage dirt rigidly and carefully.

On the contrary, most parental interviewees who lived in relatively good and well-maintained neighborhoods are immunity builders. Living in areas that are filled with well-maintained green spaces, parks, playgrounds, paths, dogs park, recreation equipment, farmer's markets, and community gardens, parents enjoy nature without extra efforts. These parents shared with me that walking to local parks and playgrounds with children were their daily routines. The well-maintained, clean, and sanitized public green spaces meant these parents are happy to let their children embrace dirt, play with mud, and be exposed to dirt and germs in nature settings. Children enjoyed picking up sticks, leaves, rocks, flowers, and acorns, splashing in the puddles and mud, and jumping and rolling on the grass.

Chapter 5

Non-White Immigrant Parents' Experiences on Child Hygiene (Surveillance) in the United States

The United States is a country of immigrants. In 2019, more than 18 million children (25% of all children) in the U.S. were children of immigrants.[57] Immigrant parents and their childcaring practices are crucial for researchers to understand how American caregivers understand cleanliness and hygiene and manage dirt and germs when taking care of young children in the United States.

Since the 19th century, cleanliness and hygiene have been serving as surveillance tools of public health reformation and signal the symbolic boundary between "Americans" and "non-Americans" (Bateman-House and Fairchild 2008; Molina 2006; Shah 2001). In the mid-20th century, non-White immigrants were labeled as inferior foreigners who lack knowledge about cleanliness and hygiene, were incapable of self-regulation, and were unable to raise their children healthfully (Ehrenreich and English 2005; Horton and Barker 2009; Hoy 1995; Molina 2006; Shah 2001). The implicit assumption underlying these public health discourses is the concept of "sanitary citizenship" (Horton and Barker 2009: 795), that cleanliness and good personal hygiene habits are equal to Americanization, and only those who can maintain a clean body, clothing, and home deserve citizenship (Shah 2001).

[57] Children who have at least one foreign-born parent.

Scholars have presented a vivid picture of how multiple American health apparatus officers racially and bodily "control" and "educate" non-White immigrant parents in the American cleanliness and hygiene norms and habits (Horton and Barker 2009; Hoy 1995; Molina 2006; Shah 2001). However, most prior studies primarily focus on the least-privileged immigrant parents[58]: families that are undocumented, of low educational attainment, low-income, and that hold unskilled jobs. Little attention has been paid to middle-class immigrant families, a growing group of immigrants to the country. In this chapter, I focus on non-White immigrant parents who are well-educated and who hold professional jobs with above-average incomes. I investigate their perceptions and understandings of American cleanliness and hygiene discourses, and explore their experiences of raising children hygienically in the United States. I address these puzzles: What kinds of American child-hygiene resocialization and surveillance do immigrant mothers of young children encounter in the U.S.? How do they respond to the American standards of cleanliness and hygiene in childcare? What are their strategies to be good (American) mothers?

In addition to studying a group that past research has neglected, this chapter updates existing research on the assumptions of "sanitary citizenship" (Horton and Barker 2009: 795). Based on the middle-class immigrant parents' experiences, I argue that "sanitary citizenship" is a racialized illusion created by White supremacy to disguise the racism and xenophobia against the immigrants of color. From my data, whether immigrant parents of color have high or low standards of hygiene and cleanliness, they have

[58] Especially mothers' experiences.

experienced being called improper and non-American parents who are stereotyped as perpetual foreigners by the White American. The cleanliness and hygiene didn't equal Americanization nor grant them the membership of the United States. As long as they are immigrants of color, they are stereotyped as perpetual foreigners.

Table 8: Ideal types of dirt management by immigration status

		Immigration Status	
		U.S.-born American	Immigrant American (Foreign Born)
Dirt Management Types	Hygiene Policer	American Hygiene Policers	Immigrant Hygiene Policers
	Immunity Builder	American Immunity Builders	Immigrant Immunity Builders

Both immigrant hygiene policers and immunity builders reported that they have experienced child-hygiene surveillance conducted by ordinary White Americans. Immigrant parents who always keep their children clean and hygienic have experiences of being accused by White parents of being "inadequate parents" who deprived their children the opportunity of playing and learning. Immigrant parents who are laid back and have lower child hygiene standards also had experiences that White parents cleaned

their children up and advised them to use hand sanitizers and wipes to clean their children and sanitize their children's gear. Immigrant parents reported that these experiences made them feel that they were outsiders, inferior, and excluded.

To be considered as part of American society, some immigrant parents switched from being immunity builders to hygiene policers and reported that they learned from White American mothers to become more precautious about hygiene and use the appropriate products to protect their children from germs and chemicals. Meanwhile, some immigrant parents switched from being hygiene policers, became immunity builders and shared that they learned to increase their tolerance of dirt and germs and let their children play with dirt and have more dirt and sensory exposures for better immunity and development. Table 8 shows the ideal types of dirt management by immigration status.

I argue that the ways of dirt management immigrant parents choose to use is associated to their experiences of hygiene and identity surveillance. For U.S.-born mothers, their ways of dirt management are not associated with their American identity. Because both hygiene policer and immunity builder U.S.-born mothers are considered as American. However, for the foreign-born/immigrant mothers, their ways of dirt management are related to their experiences and interactions with ordinary Americans of being judged as outsiders and excluded (or being accepted as insiders and included). Figure 4 shows the interactions among U.S.-born and immigrant (foreign-born) groups with different ways of dirt management.

When an immigrant mother encounters an American hygiene policer mother, the immigrant mother is told that "being a hygiene policer mother" is THE American way of dirt management. Therefore, the immigrant mother feels that she has to learn the American way, i.e., the hygiene policer, to be considered as an American mother. If she doesn't fit into the American hygiene policer mother's standard, she is criticized as an "inadequate mother" who is backward not American and can't fulfill the basic maternal responsibility of keeping children clean, as a good American mother should do.

Meanwhile, when an immigrant mother encounters an American immunity builder mother, the immigrant mother is told that "being an immunity builder mother" is THE American way of dirt management. Therefore, the immigrant mother feels that she has to learn the American way, i.e., the immunity builder, to be considered as an American mother. If she doesn't fit into the immunity builder American mother's standard, she is criticized as an "inadequate mother" who is backward, not American, and can't fulfill the basic maternal role of offering children plenty of learning and playing opportunities, as a good American mother should do.

Thus, compared to U.S.-born American parents, immigrant (foreign-born) parents are more vulnerable and more likely to feel they are excluded and marginalized. Because whether they choose to be hygiene policers or immunity builders, they may be accused by the U.S- born parents of being "non-American," "foreigners," or "inadequate parents." Immigrant parents reported that it's harder for them to resist the pressures of American surveillance they encountered from their daily childrearing practices.

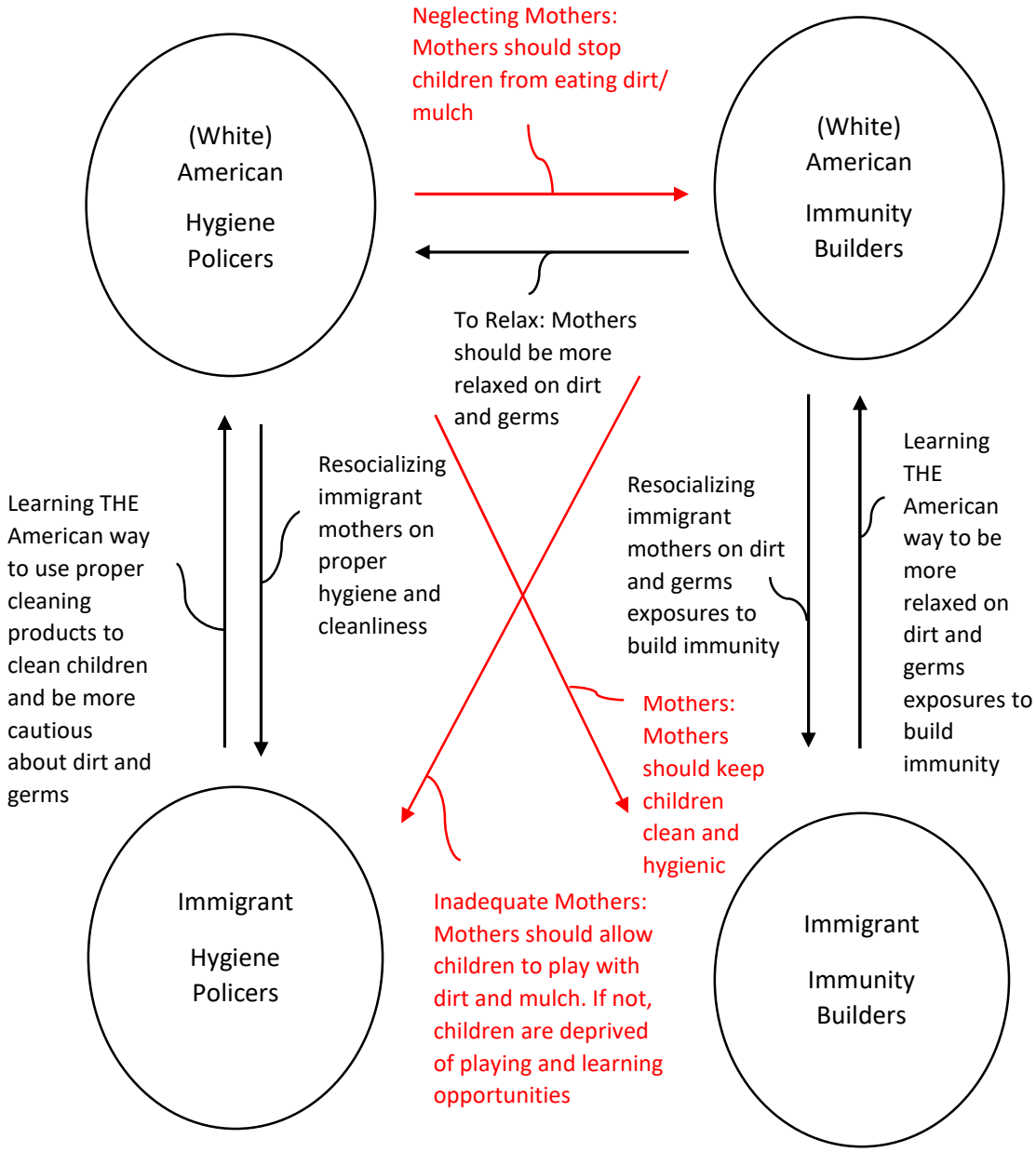

Figure 4 : Interactions among different dirt managements groups

Micro Child-Hygiene Surveillance: Being Judged as Foreigners, Non-American, and Inadequate Parents (Mothers)

When asking immigrant mothers their perceptions and understandings of hygiene and cleanliness, most of them responded: it's nothing special, normal, just like ordinary people. However, when I ask in another way: if they have any experiences of being judged because of their standards of hygiene, many of them shared their experiences of being judged as foreigners, non-American, and inadequate parents.

Laura, an immigrant mother of two in her early 40s, moved to the United States from Colombia 14 years ago when she married her husband, who was born in Colombia and raised in the U.S. Laura held a bachelor's degree in law school in Columbia. She eats Colombian food at home and speaks Spanish at home all the time. However, in the public, she consciously speaks English to be considered as part of this country. She shared with me the pressure of being an immigrant mother in the U.S. is that immigrant mothers were always under the "watch" of White mothers. Laura lives in a White-majority, well-to-do neighborhood, and she told me that her daughter was one of only three children of color in her class. She wants her children to feel they are the same as the other kids in their school, and she has adopted hygiene practices primarily for this reason. She shared with me an experience she had when she was in a park with her kids playing in the playground. This is what they encountered: "So other mothers [at school] carry a hand sanitizer on their bags. For example, they're playing after school, and my daughter

gets the rocks, dirt, sticks, or picks up the bugs. And I see a White mom told her: okay, now give me your hands, I'm gonna put the sanitizer on you."

The White mother's action sends a strong message to Laura about the American maternal responsibility and child-hygiene norms: as a mom, you need to put hand sanitizer on your children when their hands get dirty. When Laura saw that a White mother put hand sanitizer on her daughter, she felt that she was doing something wrong for not bringing wipes or hand sanitizers with her. That's why another mother had to step in to clean her daughter for her. Laura felt that she was labeled as an inadequate mother who failed to keep her child clean. Laura told me that was the first time she felt so strongly that her being an immigrant mother of color meant that there was always someone watching you. She felt that she failed to be a good mother, and she had to fit into the American maternal hygiene expectation to be a good mother. She further explained that she especially felt this way when her daughter was also socialized with the American hygiene norms. She continued: "And when we got into the car. My daughter felt [the] other mom was better, and she wanted me to put the hand sanitizer on her. She said: 'Oh, Mommy, please clean my fingers.'" Laura's daughter learned American hygiene norms from other mothers and children by interacting with them. For her daughter, using hand sanitizers, wipes, and the Lysol disinfectant spray are common hygiene practices. When Laura's daughter is socialized in American ways of hygiene norms and expectation, she became another social actor who reinforced the American hygiene norms and perpetuated the micro child-hygiene surveillance of immigrant mothers.

Laura was under the micro child-hygiene surveillance from both her mother friends and her children. She began to engage in intensive hygienic motherhood and act as a hygiene policer. She explained: "I started being like that…to put the hand sanitizers and do the wipes. … And then I don't like that, because I see all the moms [of color] that try to do whatever the [White] moms do to try to integrate into the community, but I don't like that. … But, somehow, I feel that I have to do it." Laura felt that all the mothers of color she knew try to fulfill the American maternal expectations of hygiene and cleanliness to be considered as part of the American (White) mothers' circle, more importantly, as a symbol of being considered as part of America. Even though Laura didn't like it, she felt only when she followed the American hygiene norms would she be considered as a good mother and be part of America. When I asked Laura if other mothers push her to carry hand sanitizer, she said no, but then noted, "They just keep bringing all the hand sanitizers and putting them on your children." Thus, these White mothers exert subtle pressures on Laura, both directly and indirectly through her daughter, to adopt American standards of cleanliness.

If Laura were White, would she be under hygiene surveillance and suggested to apply hand sanitizer on her children by local White hygiene policer mothers? Probably yes. Based on my data, most White hygiene policer mothers policing hygiene and cleanliness for other mothers. As discussed in chapter 4, hygiene policers experience motherhood under the intensive hygienic motherhood discourse. Hygiene policers conduct hygiene surveillance on nonconformers, White immunity builder mothers, included. A White immunity builder mother shared her experiences of being called out as a "neglecting mother" and offered hand sanitizers by a White hygiene policer mother.

However, from my data, none of White immunity builder mothers reported that they felt that they were excluded, marginalized, or uncomfortable and felt that they were not part of America. No White immunity builder felt that they were backward for not applying hand sanitizers on their children or felt less American by allowing their children to play with dirt or rubber mulch. Being an immigrant parent of color made it harder for these non-White immunity builder mothers to resist the dominant hygiene discourses. Therefore, they are more likely to be treated as abnormal, different, and backward compared to the White immunity builders who might be considered as a part of the norm, feel accepted, and still included as American.

Martha immigrated from Cuba 12 years before the interview. She and her husband, who was born in Ecuador and was raised in the United States, have a 3.5-year-old daughter. Martha described that the local mothers' group she had joined changed her hygiene standards and the way she used the cleaning products when caring for her child. She shared:

> Hand sanitizer is the winner. … Everybody loves it. You feel like, oh, I HAVE to use it. I WANT it. I NEED it. Yep. We also bought the Clorox wipes. We are told to put it on her hands when she was little, but later too. For example, we used to wipe our car seat with Clorox. We sometimes wiped the clothes by Clorox. Because the wipes come already with a liquid that KILLS bacteria. Because here you are like, everything needs to be out of germs, out of germs. Something that you have in your head.

To better protect their babies from germs and to better fit into the American hygiene standards, immigrant mothers quickly learned that they have to use these cleaning and disinfection products. Even Martha, like many other immigrant mothers, didn't use hand sanitizers or disinfectant wipes in their home country, but in the U.S., they quickly

learned that they were expected to use it to be considered a good mother who protected her children from germs. By using hand sanitizers and disinfecting wipes, immigrant mothers felt a sense of belonging to their American mom group. Martha learned from other moms that mothers were expected to disinfect their children's stuff by wiping germs away with disinfecting wipes. While White immunity builder mothers could fight against these maternal hygiene expectations, it is harder for immigrant mothers to do so. To adopt the maternal hygiene expectation equals Americanization for immigrant mothers to become more American. Immigrant mothers referred to cleaning products that for them symbolize an entrance ticket to Americanization and good motherhood.

Martha's interactions with other local mothers pushed her to bring more disinfection products and become a hygiene policer mother to keep her children clean and protect them from germs. Martha also learned from other American hygiene policer moms about substances she should protect her daughter from other than germs:

> The germs. The germs are everywhere. I bought a special liquid, special soap [for my daughter]. It was paraben-free, triclosan-free, and fragrance-free. … That is not hard in chemicals, but it says that it cleans all the germs, everything. You put it in the bathtub. Instead of putting the regular soap that you get, that have a strong smell. They're really strong with chemicals. This one is soft, doesn't have a smell, doesn't have fumes. But it still cleans germs up.

Martha had been more cautious toward chemicals and changed the cleaning products she used since her daughter's birth. As she said:

> I pay more attention to the products that I use at home for cleaning than before I had her. Before, it was like, oh, this one's cheap, do this one because it has a discount. Right now, no. I try to buy products with less chemicals because I read that chemicals can make reactions on baby, so that's why I pay more attention now to the things that I use to clean. … Definitely, they're more expensive. But I feel more comfortable using them.

To better protect her baby from chemical exposures and to better fit into the American intensive hygienic motherhood, Martha abandoned what she had learned and used in her ethnic culture:

> Because in the Latino culture, if you clean, you supposed to smell a lot of flowers. They will use, for example, Fabuloso. Fabuloso. Oh, that's a winner for the Latino family. But other moms told me that the Fabuloso has a component, something that is really bad, and it alters your hormones, and that's one of the reasons, for example, that the boys, some of them have breasts because it alters your natural gene, because it's very strong in chemicals. … So we buy one called Method, I think, is the name. It's more natural. It's based on plants. They made the cleaner from plants.

Method costs five times more than Fabuloso. Martha felt it was worth it because switching to a nontoxic, plant-based, organic soap and cleaner proved she was a better mom who not only protected her daughter from germs but also from harsh chemicals. For Martha, the smell of cleanliness had changed. Whereas she had once considered the smell of bleach or synthetic florals to be a sign of cleanliness, a lack of fragrance now was assurance that she was protecting her daughter's health. By switching to plant-based cleaning products and adopting the fragrance-free smell, Martha switched to the American way of cleaning and caring which also made her believe that she had become a better mom. Switching from Fabuloso to Method signals Martha's transition of hygiene standards, from Latino standards to American standards. Meanwhile, it also signals her transition of identity from Latino to American. As she used "they" to refer to Latino mothers and "we" to refer to American mothers, herself included.

Both Laura and Martha encountered the micro child-hygiene surveillance and resocialization from local American White hygiene policer mothers that pushed them to use hand sanitizers and wipes on their children and to engage in hygiene policing.

Through the interactions with White hygiene policer mothers, Laura and Martha felt that they were non-American, incompetent, and not good mothers for not being able to carry out the American childcare hygiene expectations. The interactions also made Laura and Martha feel that the hygiene policing is THE American way of dirt management. They told me that if an immigrant mother wants to be part of America, she has to adopt the hygiene policer's standards and norms. Therefore, both of them decide to learn from the local hygiene policer mothers and became hygiene policer mothers themselves.

It seems once non-White immigrant mothers become hygiene policers who prioritize the cleanliness and hygiene to keep their children clean; they are entitled to sanitary citizenship (Horton and Barker 2009: 795) and are considered good American mothers. However, this is not true. The relationship between hygiene and deserving citizenship is more complicated. It is racialized. The Asian immigrant mothers who self-identified as hygiene policers were not treated as accepted nor ingroup members by local American mothers. They also reported experiences of being judged as foreigners, non-American, and backward—not for their low, but rather their high, standards of hygiene and cleanliness.

Jocelyn, a Taiwanese immigrant mother with one child, consciously chooses to speak English with her son when they are around by White people in public spaces, and prepares "American food" for her son's lunchbox that he will eat at daycare. Because, she explained, "you don't want people to think that you are weird or you do not belong here." When asking about any experiences of being judged in childcaring, she recalled seeing a White mother giving a Chinese immigrant mother unsolicited advice in public:

> It was in a local playground. A Chinese mother stopped her baby girl crawling: "No crawling. Let's walk. No. No. It's dirty, it's germy." … When the baby girl picked up rubber mulches and played with them. "No. No. No. Don't touch it. No. It's dirty. It's dirty, don't touch it." … The baby girl then cried out loud. … When a White mom heard the baby girl crying out loud, she talked to the Chinese mother: "Let her play. It's fine." The Chinese mother didn't respond to her, just carried her baby girl and left. … The White mom was upset about what she saw. She turned around and talked to me: "Poor little girl. She should be allowed to play! Kids would not have a chance to learn if they were not allowed to play. If she gets dirty, it's fine. And, it's not even dirty at all, it's just rubber mulch! It is crazy. She didn't have a chance to learn. It's not good for her development. It's ridiculous."

The Chinese mother Jocelyn described had marked the ground and rubber mulch as "dirty," and believed that the "dirty" ground and rubber mulch are germy, meaning her daughter might get sick if she touched the dirty ground or played with the rubber mulch. The Chinese mother was a hygiene policer mother who tried her best to protect her child from dirt and germs exposures. But what the Chinese mother and Jocelyn saw as protective and hygienic the White immunity builder mother saw as inappropriate, "crazy," an occasion to call the baby a "poor girl." The White immunity builder mother charged that the Chinese mother was depriving her daughter of a learning and playing opportunity.

If the Chinese immigrant hygiene policer mother were White, would she be called out or labeled as a "bad mother," "non-American," or a "foreigner"? Most likely not. Based on my data, most White hygiene policer mothers are praised for their caution on dirt and germs. None of them had encountered any experiences of being called out or questioned as non-American, or criticized as bad mothers. As discussed in chapter 4, hygiene policers are part of American expected motherhood under the intensive hygienic motherhood discourse. Hygiene policers conduct hygiene surveillance on nonconformers, not the other way around. Even a White immunity builder mother, who believed dirt

exposures benefit children's health, would not criticize hygiene policer mothers as "inappropriate" mothers. Instead, White immunity builder mothers ask hygiene policer mothers "to relax," rather than accusing them of being bad mothers who intentionally deprive children of playing and learning. However, from my data, non-White immigrant hygiene policer mothers reported that they encountered child-hygiene surveillance, judgements, and resocializations that none of White hygiene policer mothers have had. Being immigrants of color meant these non-White hygiene policer mothers were treated as abnormal, different, and backward, rather than as a norm, accepted, and included as White hygiene policers.

This incident made Jocelyn feel vulnerable. She worried that her difference would make her less-American, she also worried about if she wasn't aware of the invisible unspoken American hygiene norms, her child and her would always be considered as foreigners. She shared:

> It was the first time I felt so strongly that I am an immigrant mother, and people are watching you … even in the park or playground. … This was the moment that I felt that as an immigrant mother, you need to fit into the Americans' way, even the most common little thing about how you care for your son … or otherwise, people will judge you as a bad mom … [It is not enough] only speaking English or preparing American food for them to bring to school. To fit in, you also need to change your habits and ideas … to fit into the Americans' way. … Like, even if you consider that it is "dirty," you have to do the Americans' way because when in Rome, do as the Romans do. Because you are in the United States.

It was the first time Jocelyn realized that immigrant mothers, herself included, are always under surveillance. To be considered as normal and good mothers, Jocelyn told me: "You have to change your habits and ideas … to fit into the Americans' way. Even if you consider that it is "dirty," you have to do the Americans' way … Because you are in the

United States." Jocelyn interpreted this incident as culture shock and signaled that it was her first time realizing that Asian's high standards of cleanliness and hygiene made them (Asian immigrant mothers) non-American and abnormal.

Based on this incident, Jocelyn further believed that the immunity builder *is* THE American way of dirt management. Therefore, in order to be part of America, to be considered as an American insider, Jocelyn, like many immigrant mothers (see discussions in the next session), chose to adopt THE American standards of child hygiene and American way of childrearing. Jocelyn was keen to learn more about dirt and germs exposures from the White immunity builder mothers and lower her standards of child hygiene to let her baby have more learning and playing opportunities.

Even though there are two types of dirt management, hygiene policers and immunity builders, in America, based on her personal experiences, Jocelyn believed that only becoming an immunity builder would make her child and her more American. Jocelyn's case shows that being clean and holding high standards of hygiene don't make an Asian immigrant mother more American. It pointed out that the concept of "sanitary citizenship" doesn't capture the lively racial discriminating experiences Asian immigrant mothers encounter.

Jocelyn's incident revels that while previous studies only documented the public health officials and their programs, they are not the primary drive of instilling and enforcing American hygiene norms and standards to immigrants. My studies show the fact that regular Americans also drive hygiene norms acculturation. Based on my data, I argue that in the 21st century, the micro child-hygiene surveillance encountered by

immigrant mothers via their interactions with Americans works as a powerful informal social control to police the non-American hygienic childcare activities and to Americanize immigrant mothers to comply with American hygiene norms.

Moreover, I argue that the American hygiene normality is racialized. When immigrant mothers are immunity builders who are considered as failing to fulfill the American child-hygiene norms or maternal hygiene expectations, their children are labeled as unhygienic and dirty, and they are identified as irresponsible mothers who shouldn't be part of American. On the other hand, when immigrant mothers are hygiene policers who are considered as over the American child-hygiene norms, they are called out as "crazy" and "inadequate" mothers who are also non-American because they deprive their children of the learning and playing opportunities.

Adopting and Reinforcing the American Hygiene Expectations and Etiquette

Immigrant mothers are constantly struggling about whether to adopt the American way to raise their children. My data reveals that even when immigrant mothers are eager to adopt the American ideas and perceptions of cleanliness and hygiene, they are still treated as abnormal, different, and backward foreigners by the local White mothers they encountered, as discussed above.

Nevertheless, research shows that most immigrant mothers adopt American hygiene norms to be considered sanitary and deserving citizens (Hoy 1995; Molina 2006). My data find similar behaviors that most immigrant mothers are eager to adopt the American ideas and perceptions of cleanliness and hygiene to be considered better mothers and a

part of America. Moreover, these immigrant parents are choosing hygiene surveillance and have become part of the force of informal hygiene acculturation.

Wendy, an immigrant from China with a 2-year-old daughter, had a strong belief in the American dream and upheld the "American value and life as an ideal." In order to learn more about American culture and the American way of childcaring, she enrolled in a program offered by a local church wherein an older White woman came to her apartment to share Bible stories, American holidays, American culture, and American ways of childcaring with her every Thursday afternoon. Wendy was eager to learn the American way of raising a child and hoped this program would make her the best mother she could be. When I asked her what she meant by the "American way" of caring children, she explained that norms of feeding, bathing, and playing are different in America than they were in China. Wendy explained:

> I let her explore, let her grab food by herself. … I cut fruits into small pieces and prepare finger food for her to grab, like rice crackers. She enjoys eating and playing with her food [Does she make a mess?] Always! She is dirty all the time when she is eating by herself. [I] let her be dirty and messy. I would wait until she is done, then I clean her up. What I am doing now is to let her know that eating is a very enjoyable thing, so I hope she can keep such a happy feeling in her life. She would remember that eating is actually a kind of enjoyment. … She actually enjoys the little achievements she made when feeding herself. For example, when grabbing food and feeding herself, she is thrilled when she does it! You can see the joy from her eyes. … In Chinese culture, usually parents would spoon-feed their children to make sure it's not messy and kids have eaten enough food. But I don't like it. … It's good for her to develop good eating habits from an early age. She can feed herself.

Wendy switched her feeding expectation from the Chinese way to the American way. Instead of focusing on the cleanliness, table manners, and the amount of food her daughter ate, Wendy highlighted exploration, happiness, and the skills her daughter learned through self-feeding. Wendy believed that letting her daughter play with food,

grab food with her hands, get dirty and messy, was helping her daughter to practice her fine motor skills, have more sensory stimulations, and encourage her to explore the varying textures of food. Wendy also switched her perceptions of dirt and cleanliness from the Chinese way to the American way. When Wendy saw her daughter squashing food with hands, she didn't mark the greasy fingers as "dirty," but as a symbol of "enjoyments." She believed that messy eating is relevant to her daughter's development, meaning her daughter is exploring and learning. She paid attention to the ways her daughter uses her fine muscles and practices her motor skills with her fingers, instead of focusing on the mess her daughter made. In fact, she saw the mess as a symbol of learning and exploring. Wendy developed a higher tolerance of dirt and lower standard of cleanliness for meal times. She believed that the American way is the best way for her daughter to grow up.

Likewise, Wendy had followed her American pediatrician's suggestion not to fully bathe her daughter until she was two months old and thereafter only three times a week instead of daily from birth. Wendy shared:

> I didn't bathe her in the first two months. Because her pediatrician suggests us not to bathe her before the cord falls off. When the cord fell off, it didn't heal well. So, her pediatrician told us not to bathe her. … Also, it's not good to bathe her daily because her skin would dry out and become itchy. The oil that protects her skin would be washed off. So, in the first two months, I just used washcloth with warm water to clean her face, private area, and hands. … Even when I start to bathe her, I just use water and washcloth without any baby wash soap. The doctor told us that babies are actually very clean and we don't need to clean her daily, it will be too much.

Wendy disagreed with many Chinese traditional perceptions of child hygiene and switched to the American way as presented by her daughter's pediatrician. She had in fact experienced surveillance and accusation of being irresponsible from another Chinese immigrant mother because of this. Wendy shared:

> I participated in library programs … story time and baby bounce time in the downtown library. There was a Chinese mom, she was mad at me … because my daughter [was 10 months old then] was putting a toy into her mouth. … My daughter loves to grab stuff to play … and she puts everything into her mouth. So, in the story time, she was eating and biting a toy, the Chinese mom saw it, approached me, and asked me to stop her. She said: you don't want her to bite that toy. It's dirty, it's not right, it's not hygienic. … I didn't respond to her request because my daughter had a good time playing. … Then, she got more upset with me for not stopping my daughter because she felt I was a rule breaker who violated the social norm of keeping clean. … She said: your daughter bites it, no one else can play with the toy, it's not hygienic … it's dirty … why don't you stop her?

The Chinese mom marked the "bitten toy" as dirty. She perceived the behaviors of "putting toys into mouth" as nonhygienic, while Wendy perceived them as exploration and learning. It is not clear whether the other mother wanted to protect Wendy's daughter or her own child, but according to Wendy, her daughter was far from the only source of germ transmission:

> I was upset because there were about 20 children, and EVERY child was playing and biting the toy, blocks, and puzzles. Why didn't she ask other [White] moms to stop their children? Why did she pick on me, and gave me a hard time? Maybe because other people are White and I was the only Chinese mom and she felt comfortable to question me? Maybe her English was not that good, so she was not confident to question the White mothers? I don't know.

It seemed likely that the other Chinese immigrant mother expected Wendy to follow Chinese hygiene norms because of their shared ethnicity. The other mother was trying to keep her own child from touching the befouled toys, and Wendy's remarks are not unlike those Jocelyn described a White woman making:

> The Chinese mom kept grabbing her baby away when he tried to play with a toy that had been bitten by other kids. Once he was almost about to touch a toy, his mom would grab him and carry him away from the toy to another spot. So, he would crawl again to approach another toy, and once again, when he was almost about to touch it, his mom would remove him. So, it's a funny situation that while a bunch of children were playing happily, there was one kid carried by his mom from here to there to

> make sure he didn't touch any "dirty" toys that his mom believed were disgusting and unhygienic. Poor little kid. He didn't have a chance to play at all.

Wendy believed in an American version of child hygiene. By commenting on the child of the Chinese mother as "a poor kid," Wendy became one of the American hygiene supporters who was creating another micro child-hygiene surveillance targeting the other immigrant mothers for not sharing the same American hygiene norms. Even Wendy didn't say anything in public the way Jocelyn's adversary did, Wendy's ignorance of the Chinese hygiene norms the other Chinese mom asked her to follow had an impact on reinforcing the American standards and norms of cleanliness and child-raising.

Another reason, many immigrant mothers chose to acculturate American hygiene is to let their offspring be treated the same as other American children in school and be considered as part of America. Divya and her husband immigrated from India six years before the interview. Divya enjoys India food and speaks Telugu in her household. When talking about how to feed her son, she shared: "It's all India food. Things like chapati and Dal. Like naan comes with a gravy … Indian food we eat them with hands. … So, it requires you to break the bread and dip it into the gravy." Divya fed her son with traditional Indian food by her hands. She also taught her son to use his hands to enjoy the Indian food. However, when her son grew up and went to preschool. Divya said she started to teach her son to use utensils properly because teachers in school asked all children to eat by utensil. Divya explained: "He doesn't know the proper way of using utensils. … His teacher wrote in his daily sheet asking us to introduce utensils to him. … In India, we also eat rice with spoons. … We gave him the fork and the spoon. We don't give him knives for the safety issue. … So he is familiar with the spoon and fork, but he

is bad with knife." Divya was reminded by a preschool teacher to introduce utensils to her son. So, she started to train her son to use utensils properly by asking him to eat rice with a spoon and use a fork for every meal. Divya told me that she was worried that her son may be labeled as "unhygienic" when he ate his food with his hands at school. By making her son be familiar with a spoon and fork, Divya hoped her son would get used to American eating manners when eating in the school. However, at the same time, Divya also worried that her son would be Americanized and believe that eating with his hand is unhygienic and refuse to do so when he grows up.

While immigrant mothers teach their children the proper American hygienic way of eating, they also want to keep their ethnic traditions with their children in the homes, including the traditional way of enjoying the ethnic food and sharing similar cultural values. Therefore, for immigrant mothers, choosing to acculturate American child hygiene doesn't solve all the problems of their identity struggles. Rather, the choice resolves one side (the American side) of the problem and exacerbates the other side (the homeland side) of the struggle.

Jocelyn felt similar struggles as an immigrant mother when her preschool son said that she was not supposed to share her food with him. She described:

> I was shocked when my son "educated" me that I shouldn't share my food with him. [Would you please tell me more?] We had a BBQ in our friend's house last summer. I was eating a Taiwanese sausage which I haven't had for a long time. The sausage was so good. So, I told my son: hey, Freddy, come to have a bite, it's so yummy! My son looked at me with a weird face and said: Mom, we don't share food. It's disgusting! I was so shocked and embarrassed.

Jocelyn said she was so shocked and embarrassed when her son said "no" out loud and refused her invitation of food sharing with a disgusted face. She continued: "I felt that I was doing something wrong … like a mother with poor personal hygiene. … He learned it from school. It's an American thing! [Any other examples?] He also told me that you are not supposed to "cheers" with glasses being clinking. Because it would spread the germs, according to his teacher!!" Jocelyn felt that her son was more Americanized compared to her and acted as a little hygiene inspector at home to correct her if needed. As an immigrant mother, she was struggling about how to balance between passing down the ethnic family heritages and American hygiene rules her son had learned in the school.

The struggle is similar to what Jocelyn shared earlier about the incident between a Chinese mother and a White mother. Although Jocelyn was uncomfortable with the behavior of the White woman who condemned a Chinese immigrant mother for restraining her daughter's explorations, she herself had an American tolerance of dirt and welcomed her son getting dirty. She said:

> I am more relaxed and okay with dirt, bugs, or rocks [than other Asian mothers]. My son loves playing with dirt, picking up rocks, digging on the ground with sticks, looking for earthworms. He loves finding ants and bugs. … It's fine for him to crawl on the playground, on the grass, on the slide, or kneeled down on the sand [box]. … I want him to explore and have a good time playing without a lot of restrictions. … When we encounter a puddle, I encourage him to step in and make a splash. He is very happy! I remember the joy and light from his eyes. I also encourage him to play with mud or dig [in] the sand with sticks.

Jocelyn felt she was more Americanized compared to the Chinese mother. However, she was not criticizing the Chinese mother for not following the American norms. Jocelyn considered herself as normal in the United States, but said that she would be an outlier if she still lived in Taiwan. Indeed, her Taiwanese kin had told her, "You are truly

Americanized, I couldn't tolerate my children playing with dirt." Asian friends interfered. Jocelyn explained that they would tell him, "No, no, it's dirty, it has a lot of germs on it, you will get sick," when they saw her son crawling on the mulches, grass, or on the playground. "I had to calm them down and assured them: 'It's fine. Let him play.'"

Jocelyn and her son were labeled Americanized among their Taiwanese kin, and it bothered Jocelyn sometimes. When her kin criticized that Jocelyn was too Americanized, she felt that both her and her son were somehow excluded from her Taiwanese family and culture and were no longer considered as authentic Taiwanese.

However, she realized that she must be Americanized and accepted the American norms because "we live here [U.S.] and I want my son to be treated the same as other American children." Therefore, Jocelyn didn't regret adopting the American hygiene values and norms, but she told me that her struggles on identity—the feeling of being neither authentic Taiwanese nor authentic American—made her question her decision to immigrate to the U.S. since she realized that the identity struggle would continue as long as they live in the U.S., and her son might be struggling with it when he grows up.

I argue that the ways of dirt management immigrant parents choose to use is associated to their experiences of hygiene and identity surveillance. For the immigrant mothers, their ways of dirt management should be understood under the contexts of being judged as outsiders and excluded (or being accepted as insiders and included). Therefore, compared to U.S.-born American parents, immigrant parents are more vulnerable and more likely to feel they are excluded and marginalized. Because whether they choose to be hygiene policers or immunity builders, they may be accused by the U.S-born parents

as “non-American,” “foreigners,” or “inadequate parents.” Immigrant parents reported that it’s harder for them to resist the pressures of American surveillance they encountered from their daily childrearing practices.

Even though most immigrant mothers feel pressure to “fit into” the American way of caring for their children, they respond differently to this pressure. While Jocelyn and Wendy tried to be integrated into American society as much as they could, others resisted. They saw being good immigrant parents as a point of pride and practiced their home country’s norms of child hygiene instead of switching to the American ways. Their daily childcare decisions reflected their trajectory of ethnic and parental identity, struggling under the pressure of Americanization and negotiation of a sense of belonging and othering.

Choosing to Be Partially (or Not) Americanized

James and May, immigrants from China, both participated in the interview. Living in one single-family house with 4 bedrooms, 3.5 bathrooms, and 0.5-arce backyard located in one of the best school districts in New Jersey, they both held professional jobs, a data scientist and a statistician, respectively, and were first-time parents. They have a nanny to help them take care of their son and clean up the house. In keeping with traditional Chinese norms,[59] James and May forbid their son to touch things they think are dirty or to get dirty (Chao 1995). Their son is not allowed to play with dirt, pick up bugs, or dig on

[59] PLEASE FILL IN FOOTNOTE AS NEEDED.

the ground. They made frequent use of hand sanitizers and wipes, and spoon-fed their son instead of letting him eat by himself. Friends in the United States suggested they change their feeding practices, and their pediatrician advised them to do so, but they have refused. They are concerned about their son's table manners and cleanliness and believe he may not eat enough if he has to feed himself. They explained:

> May: We would spoon-feed him. But now he is older, we also let him try to feed himself for five minutes and then we spoon-feed him. … He is not a messy eater because we teach him not to play with food nor to grab food.
>
> James: My son had good table manners because we didn't let him grab food when he was little. The doctors here [in the United States] suggest we let him feed himself and grab food by himself, and if he messed it up, it's OK. … The doctor told us to have a floor mat under his high chair, and let him decide how much he wants to eat, what he wants to eat, and if he throws food, gets dirty, or makes a mess, it is OK.
>
> May: Yep, the doctor said let him use his hands to grab food, feed himself, and decide how much he wants to eat. He will eat when he is hungry. If he doesn't eat, it means that he is not hungry and he will eat more when he is hungry next meal. So, parents don't need to be worried about it.
>
> James: However, we didn't do it that way. It would get messy, and it wasted a lot of food. … Also, if you let children eat by themselves, they will play with food. … Food is not your toy. Eating is not a play time. Kids need to learn to respect their food rather than playing with food.

Research shows that many Chinese immigrant mothers emphasize developing proper eating habits and table manners. For example, Chinese American children are not allowed to leave the table in the middle of the meal to play nor to play with the food (Zhou et al. 2015). My data support their findings and find that another table manner Chinese parents highlight is hygiene: keeping children clean during mealtime by prohibiting their preschoolers from grabbing food or engaging in messy eating.

Furthermore, as previous research shows, in Chinese culture, older generations exalt plumpness and believe that flabby children symbolize that the children are under good parental care with nutritious food while skinny children are stigmatized as shameful parents and poor parental care (Lee, Ho, and Hsu 1993). Studies show that many Chinese immigrant mothers engage in pressuring their children to eat more nutritious and healthy food by using social comparison and spoon-feeding strategy (Zhou et al. 2015). Similarly, James also mentioned that if he had adapted the American way of letting his son decide what to eat and how much to eat, he would worry that his son would be too skinny and referenced the input of older generations, saying that his son was too thin. James continued:

> Also, there is a disadvantage that if we let him feed himself, he will become too thin. He will not gain weight. … Older generations expected good parents to raise their children chubby and flabby. … His grandparents would question us, saying that we are not responsible parents because we didn't provide enough nutrition for him. But we did. It's just he didn't want to eat it. So, it's our responsibility, as parents, to spoon-feed him and to make sure he eats enough food. If we let him feed himself, he doesn't want to eat, because he is not hungry.

James and May believed that children need to follow parental guidance instead of letting them explore. Parents need to set up rules and guidance for children to follow and to achieve. They see it as important to teach children from the beginning that they should have good table manners, not play with food, not waste it, and "respect" it. Feeding their son is not only about cleanliness; it also reflects their beliefs about being responsible parents and raising healthy children. They believed that they knew their child's personality and that the Chinese way was best for him. Whereas their son's doctor and American friends told them that self-feeding would train their son's fine motor skills and

build his immune system, James and May feel that they are protecting their son from malnutrition, germs, and sickness, as well as bad behavior.

James and May are hygiene policers who felt their strict hygiene practices would make their child healthier with better manners. Therefore, they are confident in resisting the advice from pediatricians and their American friends. They are proud of holding high standards of hygiene with their children because they believed these hygiene habits were associated to well-educated and self-disciplined children. Being different from the Americans doesn't bother them because they feel superior to those who have lower standards of hygiene and cleanliness.

On the other hand, immunity builder immigrant mother Laura had experienced more difficulty resisting the pressure of acculturation of higher standards of hygiene and cleanliness than James and May. While she had started carrying hand sanitizer because her daughter was upset and because other mothers were giving it to her, she had reversed course after a while. She explained:

> I started being like that … to put the hand sanitizers and do the wipes. … And then I don't like that, because I see all the moms [of color] that try to do whatever the [White] moms do to try to integrate into the community, but I don't like that. … But, somehow, I feel that I have to do it. … Then … I feel … I'm just myself, and I don't have to change myself to fit into it [meaning America].

Laura felt that the when she was "forced" to practice the American hygiene norms, she was no longer herself, a Latino immigrant mother. She had switched back to her own standard, but she found that her daughter constantly asked her to fit into the American norms. Nonetheless Laura described herself as a "a proud normal immigrant mom" who

was different from the “crazy moms who obsessed with cleaning and sanitizing.” She explained:

> Like normal. I'm not crazy. For me, I make fun of the people here [in the U.S.] because I see the moms with those big bags and they have five different types of wipes. One for face, one for hands, one for bottoms, one for toys, and one for surfaces. And they wipe the table, they wipe the chair, they wipe the kid, they're wiping and wiping. They put the hand sanitizer. And they're obsessed and God forbid the spoon falls on the floor.

Laura associated her practices directly with her experiences as a child who embraced nature in Colombia: “In Colombia there's a lot of fruit trees. So, we would go into a tree and get a guava, I think it's called in English, or mango. We just ate it like that. We didn't wash it and do all this cleaning because it’s not a product in the supermarket that has a tag on it. I clean pretty much but not like obsessive.” When I asked her about American’s norms and practices on cleaning she said:

> It’s too much. They will do the wipes and the hand sanitizer. I don’t do it. With my son, we went to the park and I wasn't obsessed that he didn't have his hands clean because we live across the park; because I can drive and he will wash his hands. … I wasn't upset and like oh my God, you have to wash your hands. And bring the wipes and put the hand sanitizer.

However, it is not an easy thing for an immigrant mother to stand against the American hygiene norms. As Laura said: “It would take a while to keep your own standard.” First, immigrant mothers need to resist the peer pressure from other mothers and politely ignore their offers of hand sanitizers or wipes without disturbing other mothers. Second, immigrant mothers have to defend their “non-American” hygiene standards and explain why there is no need to use hand sanitizers or wipes to both their children and other mothers who practiced it. Laura quickly learned that she should use “American doctors

and theories" that she had read from parenting magazines to support her way. In line with some Americans' 21st-century thinking, Laura believes that cleanliness increases sickness. As she said:

> I think kids have to have experience with dirt and stuff because this is how their immune system is going to develop. … I noticed the more the moms clean, the more they do, the kids are more sick cause they're not exposed to all the bacteria and all the dirt. And I learned recently that the hand sanitizer all the time is not that good because it kills good and bad bacteria. So, I don't know. For me it's difficult because where I come from, people don't use hand sanitizer. And we never got that sick as kids like here with all the cleaning. I don't know. For me it's sometimes difficult, getting accustomed to the cleaning norms here.

Laura uses American's medical knowledge she has gained in the U.S. to support her own standards of hygiene and cleanliness. From a lost immigrant mother who felt that she was forced to "fit into" the community to gain a sense of belonging, to a proud minority mother who defended herself as "normal" and not "obsessed with cleaning and sanitizing," Laura's trajectory of norms and identity negotiation showed her journey of who she was and her efforts to defend her identity in the United States.

Under the American hygiene and identity surveillance, some foreign-born/immigrant parents still managed to maintain their own standards of child hygiene and resist the pressures to fit in to American hygiene because they believed that their standards of hygiene are better for their children, and they are proud of being a good minority parent.

Immigrant parents' different strategies (acceptance, rejection, appropriation, and negotiation) from the dominant American hygiene discourses reflect that parental hygiene standards are also rooted in their daily negotiations of a sense of belonging and othering in the United States.

Chapter 6

Conclusion

The concepts of cleanliness and dirt are neither universal nor fixed. Individuals from different cultural backgrounds and social positions (social class, race/ethnicity, and immigration status) understand the meaning of cleanliness and dirt differently, and those understandings can change over time. Little research has addressed how multiple social actors participate in the social construction, distribution, reinforcement, and negotiation of meanings of cleanliness, dirt, and health under the contested hygiene discourses.

The state and public officials have used hygiene discourses as a tool to manage public health, to sanitize spaces, to govern populations, and to discipline bodies and souls. However, most researchers focus on how hygienic discourses and policies discipline adults and school-aged children, paying less attention to how the hygienic discourses are incorporated into early childhood education and care. In this dissertation, I address this gap by examining how child hygiene discourses govern and discipline childcare providers, parents, and preschool-aged children, shaping children's daily lives in childcare facilities and private homes.

This study traces the social construction of child hygiene in the United States. In this dissertation, I ask how the hygienic child is possible? I explore the ideas of clean and dirty through the contexts of childcaring and the lens of relevant social actors—state governments, daycare teachers, and parents. From their perspectives and practices, I analyze how dominant American hygiene normality and hygienic subjects are produced

institutionally. I address the questions, what hygiene codes are passing down to the next generation? And how do social positions shape parents' understandings and practices of child hygiene?

Chapter 2 examined the hygiene regulations, standards, and guidelines that the New Jersey state government used to govern daily childcare practices in daycare centers and preschools. At the level of biopower and governmentality, I showed that the state government supported and distributed the germ theory and infection control discourses about cleanliness and dirt in regulating childcare professionals and practices. The state hygiene regulations produced and activated the daycare teachers as hygienic subjects who carried out the hygiene rules and norms. To fulfill the state regulations, daycare teachers became hygiene workers who spent more than half of their time and energy on cleaning, sanitation, and disinfection. Under the state regulations, different daycare centers enacted similar temporal and behavioral patterns to support daily hygiene-related childcare tasks. Keeping children clean and the childcare environment sanitized act as symbols of good professional childcare.

Studies have shown that preschool classrooms reproduce, stabilize, and maintain the dominant social order and normality, including along the boundaries of normative gender identity (Martin 1998), race (Van Ausdale and Feagin 1996), heterosexuality (Gansen 2017), and social class (Streib 2011). At the level of subject formation, chapter 3 argued that daycare teachers acted as key socialization agents who passed down the dominant American hygiene norms to the younger generation and produced the dominant American hygiene normality in preschool classrooms. To my knowledge, this dissertation is the first

study that uses ethnographic data to explore how daycare educators teach children hygiene knowledge and behaviors. In chapter 3, I showed that children from different racial/ethnic and cultural backgrounds received the same American codes and messages of hygiene and cleanliness. Daycare teachers socialize children with the dominant American hygiene ideas in temporal order (timing, sequence, duration, and tempo) and spatial deployment (classification of clean and dirty). They also instruct children in hygiene ideas, including the hygienic way of body usage, hand hygiene, respiratory hygiene, wearing outdoor shoes in the classrooms, table manners, and not sharing food. By demonstration, inspection, reprimand, and correction, daycare teachers transformed enrolled children into American hygienic children who embodied American hygiene normality.

In chapter 4, I showed that parents of different social positions (e.g., socioeconomic class, race/ethnicity, and medical histories) understood the meaning of dirt and cleanliness differently and managed dirt differently. I conceptualize two ideal types, hygiene policer and immunity builder, with distinct management, attitudes, and understandings of cleanliness, dirt, germs, and health. Hygiene policers believe that fulfilling their paternal responsibilities means keeping children clean and hygienic. Good parenting, especially mothering, involves acting as the primary protector. Parents must shield their children from germs and dirt and keep them healthy by cleaning and disinfecting them. On the other hand, immunity builders reject the dominant intensive hygienic motherhood discourses on cleanliness and disinfection. They subscribe to the hygiene hypothesis and may consider the cleaning and disinfection of hygiene policers to be obsessive. They may actively try to create more opportunities for their children to

embrace dirt and have diversified germ exposures. I also analyzed the interactions between hygiene policers and immunity builders.

Chapter 5 examined how immigration/nativity status plays a role in shaping immigrant parents' dirt management strategy. I argue that non-White immigrant parents' daily informal hygiene resocialization and micro child-hygiene surveillance experiences are crucial ways of informal social control that Americanize immigrant mothers and push them to embody American hygiene norms and raise Americanized hygienic children. My analysis of their strategies of responding to the dominant American child-hygiene norms in the United States indicates that non-White immigrant parents accept, reject, appropriate, and negotiate the dominant American hygiene discourses to defend their parental (maternal) and ethnic identities as well as their daily negotiations of a sense of belonging and othering in the United States.

Limitations

This research has several limitations. First, both ethnographic sites are independent NYCED certificated daycare centers,[60] and the research didn't collect ethnographic data from franchise or non-NYCED certificated daycare centers. Therefore, this study cannot be generalized to daycare workers' experiences in franchise or non-NYCED certified daycare centers and how they passed down hygiene norms to young children. According to my interviews with franchise daycare

[60] This study focused on traditional ECEC institutions, i.e., daycare centers and preschools. It didn't include Montessori Schools or Waldorf schools.

teachers, each parent company has internal hygiene rules and inspections to guide and support their franchise centers. This may indicate that franchise daycare workers might practice the hygiene rules more diligently and promptly. On the other hand, maintaining a sanitized environment and hygienic childcare practices are costly. Non-NYCED certified daycare teachers, whose centers do not benefit from NYCED's recommendation to parents, may have less strict rules. Future studies can explore this issue.

Second, this study focused on state government's hygiene regulations on daycare teachers and hygiene discourses on parents' hygienic childcare practices, assuming hygiene discourses and state governments are vital factors shaping childcare practitioners' understandings and practices of clean and dirty in their daily childcare practices. It seems likely that other factors also play a role, such as media (including traditional media and social media) and advertisements, in shaping childcare practitioners' childcaring activities. Future studies can collect data on media and advisements of child hygiene information and products, exploring how they shape daycare teachers' and parents' decisions on child hygiene products and practices and serve as important information channels for teachers and parents.

Third, this research does not have data from relatives, nannies, or home daycare teachers, who provide regular care to about 30% of preschoolers. These caregivers may pass down different hygiene norms to children or practice hygienic childcare differently. Future studies can include other childcare providers in the analytic frame, examining if different childcare providers pass down hygiene norms differently.

Fourth, this research didn't collect quantitative data directly from children. Without measuring children's hygiene behaviors quantitatively, this research couldn't accurately examine the correlation between hygiene socialization and children's hygiene behaviors. Therefore, this research could only state that multiple hygiene socializations matter but couldn't compare how multiple hygiene socializations matter differently on children's hygiene behaviors.

Fifth, the ethnographic data on daycare centers was not paired with parents' or daycare teachers' interviews. I did not limit my parental sample or the daycare teachers' selection on the two field sites. Instead, I have a broader interview sample frame. Therefore, this research couldn't compare how multiple hygiene socializations (parental socialization vs. daycare teachers' socialization) affect children's hygiene socialization differently.

Implications and Broader Significance

Institutional Reform to Create a Better Childcare Working Condition

Studies had documented that inadequate compensation, long working hours, stressful working conditions, and poor supportive administrative practices have led to high turnover rate and burnout of early childhood educators (Hale-Jinks, Knopf, and Knopf 2006; Løvgren 2016). This study showed that early childhood educators, especially those caring for infants and toddlers, spend substantial time and energies on hygiene-related tasks. Based on the analysis of daycare teachers' daily childcare experiences, I argue that

the strict hygiene regulations and tedious time-consuming cleaning duties contribute to stressful working condition and emotional exhaustion.

Lowering the staff/children ratios required in daycares would lower such stressors. Decreasing child-teacher ratios by one in every case would make a difference. For example, regulations might call for lowering the ratio from 1:4 to 1:3 for under 18 months; from 1:12 to 1:10 for 4 years; and from 1:15 to 1:12 for 5 years and older. Current guidelines require 1:6 for 18 months to 3 years and 1:10 for 3 to 4 years; requiring 1:5 up to 2.5-year-olds and 1:9 for 3- to 4-year-olds would better reflect common ages of potty training. With the lower ratio, each teacher has fewer children to care for and could provide better care quality with more time for each child. It will also increase costs, increasing the need for government subsidy of daycare. Furthermore, as I showed that hygiene tasks are not evenly distributed, most of these tasks are done by women of color who were concentrated in the lower level of the daycare hierarchy as teaching aides or assistant teachers. With the lower ratio, it could make these vulnerable daycare workers have fewer hygiene tasks and reduce their possibility of becoming burned out.

Adjusting current hygiene regulations would also alleviate burden. My observations suggest these regulations may not reflect the childcare professionals' working situation, and it's not practical for them to follow such rules. State hygiene regulation should center on daycare workers' working experiences and change the regulations to better fit their needs. The state regulation should take the children's age, children's development, the type of diapers children wear, and the number of children into account.

For example, the state regulation states that daycare workers shall dispose of the disposable glove for each diaper change, and wash and disinfect diapering surfaces after each use. But some daycare teachers told me this is unreasonable. Daycare workers are well-trained professionals who know what is dirty and when is the proper time to change their gloves and clean the diapering surfaces. If the rule changed from "shall dispose of these gloves after each use and shall wash their hands" to "shall dispose of these gloves after each use and shall wash their hands, as needed" this would give daycare professionals more flexibility and freedom to do their jobs more effectively.

Similarly, the state regulation states that daycare workers should wash and disinfect the "toilet training chairs and potty seats that have first been emptied into a toilet" and "sinks and faucets used for rinsing a toilet training chair." However, none of the teachers I interviewed or observed actually did this. They were too busy helping children to get their potty trained, clean their bottoms, put on their diapers, and wash their hands.

Another rule the state requires of daycare workers: "The toys mouthed by infants and toddlers before being given to another child shall be washed and disinfected after each use." However, infants and toddlers are quick grabbers. In their development phase, they master their motor skills by reaching, grabbing, and swatting. They learn by putting toys into their mouth. Many teachers told me the only way to prevent infants and toddlers from grabbing toys others have mouthed would be to prevent them from interacting with other children, an unacceptable impairment of their social development. The impractical regulation failed to meet its goal. Changing the rule to wash and disinfect as needed, or

before putting them away would grant daycare teachers more agency to handle situations depending on their professional judgements.

Situating (State-Regulated) Hygiene Norms and Being More Inclusive

State regulations fix hygiene rules and make them universal, with clear definitions. However, in real-life experiences, the definition, meaning, and practices of hygiene are always situated in the contexts. The daycare teachers I observed and interviewed pass down hygiene norms based on state hygiene regulations to young children and produce American hygienic children. This process may marginalize children and their parents from different ethnic/cultural backgrounds.

I suggest daycare teachers situate state-regulated hygiene norms into childcare classroom contexts. Daycare teachers are key socialization agents who teach, correct, and inspect children in schools. If daycare teachers can teach children that the hygiene norms and rules are situated in current contexts, children can learn that hygiene standards and rules are not universal, but dependent on situation and cultures. For example, in the U.S., children need to wear outside shoes inside the classrooms, because it is in the school setting and they need to be prepared to go outside in case of an emergency. However, with the same concern, in some Asian societies, children are required to change their outside shoes to inside shoes upon arrival at their classrooms because for them wearing outside shoes inside the classrooms are dirty. In another setting, children may need to take off their shoes (for example, in some private homes). Teachers could also explain to children that we can cheer and clink cups and share food if we are at home, but

not in the school setting. Teachers should also introduce to children that people use different ways to eat (for example, with hands or with chopsticks) in different cultures. By situating the hygiene rules into different scenarios, children could understand that people from different cultural background may have different hygiene habits and practice different hygiene rules.

The Socioeconomic Class Meaning of Dirt Management

When a group of parents worry about the consequences of being exposed to germs and dirt and others don't, this suggests that social-class distinctions are at work. My research showed that more mothers with higher economic and medical resources were more relaxed about cleanliness and had a higher tolerance for dirt. Having medical insurance and the flexibility to take days off and pay bills due to unexpected medical incidents made these mothers less concerned about childhood illnesses. Concerns about being judged as neglectful if their children were dirty or wore stained clothes also affect parents of different classes and races differently.

Access to parks with some level of cleanliness also shaped parents' decisions. Mothers who lived in wealthier neighborhoods reported that their children enjoy playing in parks. Well-maintained public spaces with green area accessibility gave these mothers contexts in which to introduce nature to their children with plenty of outdoor activities. Enough money to replace clothes rendered unacceptably stained, cleaning products to address stains and dirt, and in-home laundry facilities also make it easier to encourage mud play.

Asymmetry in Micro Public Health Surveillance by Race, Immigration Status, and Type of Dirt Management in Daily Childcare Practices

Mothering of infants, toddlers, and preschoolers has recently fallen under greater governmental and interpersonal surveillance under good motherhood/parenthood discourses (Barlow and Coe 2012; Holloway and Pimlott-Wilson 2014; Horton and Barker 2009; Simmons 2020). This dissertation addresses such surveillance with respect to hygiene and cleanliness, which has been underexplored in research.

The hygiene surveillance mothers in this study reported varied by type of dirt management, race/ethnicity, and immigration status. First, immunity builders report encountering more hygiene surveillance than hygiene policers. Immunity builders reported that other mothers questioned their practices or suggested they clean their children or follow others hygiene rules. However, none of the hygiene policers reported similar experiences of being advised by other parents (except Asian immigrants). Second, compared with White mothers, minority mothers reported more experiences of other mothers advising them on keeping children clean. Last, more immigrant mothers reported that they encountered hygiene surveillance than American mothers. Immigrant mothers reported that it's hard for them to resist the hygiene surveillance because they are under double interpersonal surveillance to be a good mother (motherhood discourse) and good American citizen (citizenship discourse). Both immigrant hygiene policers and immigrant immunity builders mothers feel that they are different, abnormal, and excluded. However, those with lower standards of hygiene and cleanliness expressed that they receive

significant pressure, which they struggled to resist, whereas those with higher standards did not relax. They felt different, but superior to Americans.

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