

Discursive Spaces and Sexual Subjectivities: Insights from Biology Classrooms

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Synopsis of PhD Thesis

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Abstract

This thesis explores the discursive space of Biology classrooms and sexual subjectivities (thoughts, emotions, dispositions, opinions, sense of self and the world) therein. The thesis has been conceptualised with the understanding that the dynamics within a Biology classroom cannot be fully comprehended without considering how the school as a whole operates and how broader societal discussions on sexuality shape the institution of the school. Hence, I begin by examining the discourses in the public sphere, then narrowing to the school, and finally zooming into Biology classrooms. Through analysis of specific public discourses, science textbooks, teacher interviews and classroom observations, I attempt to examine how relations of power and different institutional and cultural discourses work to constitute specific subjectivities. Within the classroom, I explore different aspects of teachers' lived experiences and positionality that influence the narrative they bring while discussing sexuality. I further explore the interaction of scientific and moral discourses on sexuality in the classroom to produce narratives of reproduction, identity and pleasure. Lastly, the thesis examines the troubled and tense environment that arises during these discussions and explores how teachers navigate these complexities.

Publication

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Paper under Consideration

Jose, P., Chunawala, S., & Chari, D. Artistic mutilation of genitalia: An interpretive analysis of representations of genitalia in Indian school science textbooks- Paper submitted to Gender and Education

Conferences

- Slippery terrains of Science and Sexual morality: Exploring the frequent departures from 'medico to socio-cultural moral grounds in higher-secondary biology classroom discourse- Paper presented at 9th World Conference on Women's Studies (WCWS 2023), Bangkok, Thailand.
- Exploring the category of we and them within the microculture of aided schools - Paper presented at Kerala School Education Congress-2023, Thiruvananthapuram, Keralam.
- Exploring teachers' understanding of students' sexuality and sexual knowledge- Poster presented at Annual Research Meet-2020, HBCSE, Mumbai.
- A Feminist Content Analysis of the National Adolescence Education Programme- Paper presented at CESI Conference, 2019-Exclusion, Inclusion and Equity in Education, JNU, Delhi.

Overview of the thesis

This thesis aims to study the discursive space of Biology classrooms and sexual subjectivities (thoughts, emotions, dispositions, opinions, sense of self and the world) therein. The thesis has been conceptualised with the understanding that the dynamics within a Biology classroom cannot be fully comprehended without considering how the school as a whole operates and how broader societal discussions on sexuality shape the institution of the school. Hence, there is an attempt to understand various discourses on sexuality inside and outside the Biology classroom.

This thesis takes a sequential approach, beginning with an examination of the public sphere, then narrowing to the school, and finally zooming in on the Biology classroom. By analysing different spaces the thesis aims to provide a holistic and rounded understanding of how the discourses surrounding sexuality impacts the formation of sexual subjectivities within Biology classrooms. The central questions that the thesis tries to explore are “*What sexual subjectivities are promoted in the discursive space of a Biology classroom? How are these subjectivities produced and what role do the hegemonic structures play in this?*” All the chapters seek to address the central questions; some chapters particularly address specific sub-questions. I attempt to understand how teachers teach the topic of sexuality in a Biology classroom and how textbooks depict these topics. I specifically try to understand how different scientific and moral discourses, which are shaped by the hegemonic value system and teachers' lived experiences, work together and independently in shaping these subjectivities.

I now provide the outline of the organisation of each chapter.

Chapter 1 begins with an introduction to the thesis and includes a review of relevant literature that informed this thesis. Here I also discuss how I conceptualise structural power and teacher agency, which shapes my analysis of the chapters that follow. I discuss how my positionality changed with respect to the work and the various moral complexities I encountered.

In Chapter 2, I present the research questions, the context of the study, the methodological approach and design as well as theoretical considerations. In the latter section of the chapter, I try to understand the context more through specific literature about the discourses on childhood, sexuality and religion in the public sphere of Kerala. I then try to understand the present

dominant discourses around childhood sexuality by examining two incidents that happened in Kerala in the recent past.

In Chapter 3, I attempt to understand the micro-discourses on sexuality and the dominant value framework that constitutes the microculture of the school by taking a Roman Catholic management school in Wayanad, as a case. This chapter will also describe teacher narratives and cultural perceptions on children's sexuality.

Chapter 4 explores the science classroom discourses and aspects of teachers' lived experiences and teacher identity that influence the narrative that teachers bring to the class.

In Chapter 5, I discuss the interaction of scientific and moral discourses around sexuality in the classroom. Here, I argue that the discourse of science and morality are not distinct in the context of classrooms; rather, they fit together and inform each other to produce, discipline, and regulate sexualities. I will describe how these two discourses combine to form narratives of reproduction, identity, and pleasure.

Chapter 6 will illustrate a few instances from the classroom, where the sexuality discourses caused tension in the classroom environment and will outline the strategies teachers used to navigate these.

I conclude the thesis with chapter 7 where I share my reflections and possible implications that the thesis informs.

Chapter 1: Introduction

Through various rituals and practices, schools play a prominent role in shaping children's cultural, sexual and gender identity (Skegg, 1991; Mac an Ghail, 1996). Many literature suggests that normalized identities often get celebrated in schools. Masculine and feminine sexualities operate differently within the school, allowing students to take up their respective roles- the powerless and those with power (Skeggs, 1991). Likewise, Mac an Ghail (1996) argues that schools function to prepare students for the sexual division of labour in domestic and workspace through the discursive practice of classroom, staffroom, and playground micro-

culture, offering hierarchically ordered heterosexual masculinity and femininity to the students. Boys construct masculine identities through processes of negating homosexuality and femininity, and performing sexist heterosexuality. Boys assert their masculinity through homophobic teasing and jokes to deny the masculinity of others (Pascoe, 2005). Further, the physical and symbolic structure of the school disciplines and regulates students' sexuality and sexual expression. Allen (2007) talks about how the 'official culture' of the school regulates and allows only a particular sexual identity for the students. A non-sexual identity is promoted and protected within the school. Schools foreground protective discourse that emphasis on sexual risk. All other discourses of desire which can 'eroticise' the child are banned from school. Bazzul & Sykes' (2011), analysis of Biology textbooks, suggests that textbooks work to constitute particular sexual subjectivity through a discourse that promotes heteronormative notions of sexuality and sex/gender binaries. Lemke (2011) argues that science education through the silence of alternative sexuality, intersex people, and normative-challenging facts promotes the dominant cultural (masculine) perspectives.

In short, schools reflect the dominant ideologies of the larger society and take an active part in producing and reproducing gender and heterosexual divisions. In this thesis, I attempt to understand how the complex space of a Biology classroom mediates the production of specific sexual subjectivities. I try to look at what personal experiences teachers bring to the class while discussing sexuality. I explore how the structure of school, (science/biology) curriculum, teachers and students interact to produce specific discourse and its relation to the macro-discourses on sexuality. In this thesis, we have provided an account of how schools try to construct particular sexual identities and regulate some non-preferred sexual identities.

A review of the literature

Every society has its norms, values, and expectations around sexuality. Similarly, the meanings attributed to childhood and the boundaries set around it are not fixed or universal. They are socially constructed and influenced by various factors such as cultural, religious, and historical contexts. By examining the intersection of conceptions regarding childhood and sexuality, we can gain insights into the social and political hierarchies and structures of domination within a

particular society. Understanding how society views and regulates childhood sexuality provides a window into the broader power dynamics and social structures at play.

The social category of childhood is constructed around the age of physical maturation and social meanings like dependency, school completion, age of marriage and so on (Norozi & Moen, 2016). As mentioned, the history and meaning of this flexible category varies across cultures and contexts. However, there are child development theories that put forth an idea of a universal child progressing through biologically predetermined stages in accordance with age, and reaching adulthood (Robinson, 2012). For instance, Piaget's theory of development explains that children move through four distinct stages of intellectual development, reflecting the increasing complexity of children's thinking (McLeod, 2007). Sexual maturation is often considered as the distinguishing point between a child and an adult and sexuality becomes the exclusive domain of adults who decide what is appropriate for children: how they should behave, what and when they can know, and so on. Thus, the intersection of childhood and sexuality is contested and complex.

Sexuality is permitted differently in different cultures; for instance, European royals and upper classes assumed that children mature sexually at around twelve, so marriage in these groups occurred around that age, while other classes married later (Kehily & Montgomery, 2009). The strict restriction of sexual knowledge was also class specific: unlike the middle class, children from low-income families who shared sleeping places were familiar with sex and the adult body. In India, the legal age for sexual maturation was shaped by colonial, post-colonial intergovernmental and transnational discourse about child marriage, population control, and nation's moral reputation (Tambe, 2019). An increase in the legal age of consent also restricted sexual exploration and access to reproductive and sexual health care (Pitre & Lingam, 2022). Defining the sexual maturation of girls remained central to the above discourse since the age of sexual consent for girls implies not only sexual autonomy, but also pregnancy and motherhood (Tambe, 2019).

The following section will discuss how the predominant constructs of childhood innocence and moral panic are used to control and regulate childhood sexuality.

Children in relation to sexuality are conceptualised in varied ways: as innocents who need to be protected, as objects to be monitored, or as prurient beings who need to be controlled (Egan & Hawkes, 2007). The discourse of the 'innocent child' views children as born pure but susceptible to the corrupting influences of evil companions (Egan & Hawkes, 2008). This discourse suggests that if parents can protect their children from evil companions, the child's sexual development will lead to a normal, monogamous, heterosexual, and progressive desired end; but if parents fail in doing so, the child could be involved in sexually deviant behaviour. Such a construction of childhood sexuality legitimises the inequality between children and adults. Along with the 'innocent child', comes the construct of the 'sexual child' who could corrupt the 'innocent child'. The 'innocence' discourse arises from the larger fears and anxieties about society. Children are easily monitored, controlled, and shaped; hence the larger discourse converges onto the child for a 'pure and civilized' future. Thus all childhood experiences are hetero-normalized to make future heteronormative adults (ibid). This conception of sexuality makes it essential to separate children from adults, younger from older, lower class from middle class, and school-going children from those who are in inappropriate institutions (Foucault, 1986 as cited by Deacon, 2006).

The notion of innocence also leads to ignorance and dismissal of the child's account of their experiences (Bhana, 2007). According to Foucault (1990), the pedagogisation of child sexuality is one of the four mechanisms in which power intersects with sexuality. Here, children are assumed to be highly sexual beings who should be monitored and regulated. Foucault writes, " In the sexualization of childhood, there was formed the idea of sex that was both present (from the evidence of anatomy) and absent (from the standpoint of physiology), present too if one considered it's activity and deficient if one referred to its reproductive finality; or again, actual in its manifestations, but hidden in its eventual effects, whose pathological seriousness would only become apparent later" (Foucault, 1990, p.153).

However, as Jarkovská and Lamb (2018) point out, critiquing the notion of innocence should not downplay children's need for protection from the exploitation of adults and the harmful, sexist-stereotyped notions of sexuality. Shifting the focus to the concept of vulnerability will help us understand children's needs at various developmental stages, the role of social identity in making some children more vulnerable, and the decriminalisation of children's

sexuality. It also requires reframing vulnerability and addressing it through mechanisms other than policing, surveillance and punishments (Meiners, 2017).

The casting of sexual morality in India

A new sexual morality was imposed in India during the colonial period, which linked the civilised sexual appetite to social and national progress (Murali, 2016). The colonial morality was cast by the colonisers and the elite on the local culture to mark legitimate and illegitimate forms of sexual practices (Kumaramkandath, 2013). They also played a crucial role in creating images of un-civilised pre-modern regime of sexual anarchy. While imposing the 'superiority' of Victorian morality, the colonial state also amended their aims to pacify religious revivalists and traditionalists (Tambe, 2000). However, the globally influenced consumption space has displaced the anti-colonial and nationalist construction of women (the respectable middle-class women with 'essential femininity') by aggressive, confident, sexualised, and public women (Lukose, 2005). This colonial and post-colonial discourse on modernity together shapes the sexual morality of contemporary India. Public morality is manifested through moral policing and other forms of disciplining mechanisms in private and public spheres on a daily basis and imposes religiously sanctioned middle-class notions of sexuality in Kerala (Kurup, 2021). This social control through vigilantism is used to preserve the structures of family, marriage, religion, and nation. Kerala has largely been closed off to the open sexual expressions made possible by globalization and liberalization for most middle-class Indians (Devika, 2009). The developmental discourse of Kerala has emphasised the mother/ homemaker role of women, thereby constructing a 'Kerala model woman' who is educated, elite, healthy, modern and less fertile (Devika & Sukumar, 2006). Historically, sexuality in Kerala has been marginalised, and the people at the margins are more sexualised - the prostitute, sexual minorities, AIDS patients and dalits (Devika, 2009). Adolescents and young adults- cutting across gender, class, and community divide are the new additions to this group and hence are the new targets for social and sexual surveillance (Devika, 2021). Police have recently increased surveillance of teenagers in social and cyber spaces through various surveillance programs like 'Operation Gurukulam' and 'Operation Vidyalaya' (ibid).

Conceptualisation of Structure and Agency

It is important to outline how I conceptualised the function of structure and subject agency in the formation of a particular discourse which are the points of analysis of my thesis. This conceptualisation and the thesis have been mutually constitutive. I assume that the structure

(referring to the social, cultural, political and institutional framework that produces norms, laws, and social hierarchies) plays a significant role in shaping how individuals perceive and make meaning of their actions. Individual subjectivities are not isolated or independent, they are influenced by the power dynamics inherent in our social, cultural, and political environments. The subjectivities are not fixed or static. Instead, they are constructed and reformed through social interactions and engagements. Each time individuals interact in social actions, their subjectivities are shaped and transformed. However, the individuals possess a certain degree of control over the social relations in which they are involved. Individuals have the capacity to exert agency and can potentially transform those social relations to some extent. However, this individual's ability to act is mediated by their socio-cultural context.

This means, subjectivities can adapt and respond to the structure in which individuals find themselves, but the extent depends on their subjective position within the power hierarchy. They emerge through a dynamic interplay between the structure and the individual choices. Thus individuals may navigate and negotiate their identities and actions based on their relative power and position within the larger social structure.

Building on this, I go with the assumption that teacher subjectivities are produced within the complex discursive space of different social actions. These social relations and institutional practices both shape and are influenced by the actions of teachers. Within the larger macro-discourse, teachers consciously or unconsciously adopt positions, make choices, and engage in actions that contribute to the production of their own subjectivities as well as those of their students. These choices and actions are not isolated but are embedded within the broader social and institutional contexts in which teachers operate. These choices contribute to the production and reproduction of specific discourse in the classroom. Teachers make meaning of different discourses based on their subjectivity, thus their beliefs and values become the frame of reference by which they interpret and make meaning of reality. Thus the discourse produced is mediated and influenced by particular subject positions constructed within the complex network of social relations. Thus, teachers, as mediators of discourse in school and the classroom, are both shaped by and actively shape the larger structural discourses.

Documenting my journey through Ph.D

My interest in this doctoral study arose as a response towards many of my gendered school experiences and resentment towards my teachers. When engaging in research on this particular topic, it is important to develop comfort and ease around these aspects on a personal level. Throughout my journey, I found myself constantly working to comprehend and transform my relationship with my body. However, it took some time for me to truly grasp the realization that this struggle is highly personal and that it is an ongoing process. Initially, as I delved into my research, I may have approached it with a certain level of detachment or objectivity. Overtime, the process of academic exploration started to have some influence, mostly a troubling one, in positioning myself within the larger structure. I encountered moments of introspection, self reflection, and self acceptance. I realized that transforming my relationship with my body required a willingness to confront my own and societal expectations, insecurities, and cultural influences.

Initially, I positioned myself as someone who is very comfortable with the aspects around sexuality and someone who was able to surpass many social and cultural meanings ascribed to the body. Through this journey discovering my insecurities and troubled relationship with my sexual being broke my perception of myself as a ‘progressive liberated woman’ which was a major setback at various points. This dissonance with my perceived self often posed larger questions around my identity. It took some time to actually understand that the process of self-acceptance is a continuous process. Ultimately, recognizing the personal nature of this struggle, I believe, allowed for empathy and open-mindedness when engaging in this research.

My relation with the teachers also underwent a similar trajectory. As mentioned before, my initial relation with my teacher came from the resentment I had toward teachers who taught me. I placed the teachers in an antagonist position at the beginning and considered the protectionist discourse that they share as an effort to suppress and limit students’ experiences. My understanding that my thoughts are bound by morality helped to break the binary of regressive and progressive categories. As I delved into the complexity of sexual culture, where sexuality is expressed, practised, and understood in certain ways, I partially started to let go of my judgements. I recognized that teachers, like sexuality educators, were also striving to create a

safe space for children. However, I also realized that there could be differing interpretations of what constitutes a safe space and how to create one, which requires continuous dialogues and negotiations. Identifying the shared goal of promoting a safe space allowed me to approach teachers with a better sense of understanding and openness.

Chapter 2: Methodology

This chapter provides an overview of the research question that sets the focus of this thesis and the methodology that I use to address them. I give a description of the participants around whom the thesis is situated.

The fundamental question I try to explore through this thesis is

“What sexual subjectivities are promoted in the discursive space of a Biology classroom? How are these subjectivities produced and what role do the hegemonic structures play in this?”

I have broken down this question into a few other ones to carry out the research, which are:

1. What are the different sexuality discourses produced within the school, Biology classroom in particular?
2. How does social and institutional discourse on sexuality manifest in the everyday experiences of teachers and influence their narratives?
3. How do social and institutional discourses on sexuality construct social relations between teachers and students?
4. How do different discourses on sexuality interact with each other to produce a broader narrative?

As previously stated, the thesis is approached with the assumption that it is critical to situate the Biology classroom within the larger social structure. As a result, it was important to examine the various discourses present in the larger context. I draw on research literature on childhood, sexuality, and religion in the context of Kerala for this. Later, I will focus on two incidents that have recently sparked public debate about childhood sexuality. The first is an incident in which

Rahana Fathima's son, a body activist, painted a picture over his mother's semi-naked upper body. This body art video was uploaded to YouTube and led to divided views. In the second incident, a gender-neutral school uniform was introduced in a Kozhikode school. I examine news debates on popular television channels about these incidents that are available on YouTube. My analysis is based on two debates surrounding the first incident and three debates surrounding the second.

Chapter 3 is situated within a government-aided Christian management school. The school, which comes under minority education institutions, is 45 years old and is managed by the diocese where the head priest is the head of the management committee. I draw my analysis on the POC (Pastoral orientation centre) Value education text books of grade 6 -10th published by the Kerala Catholic Bishop's Council, which the school follows and four lectures titled "Know thyself", which is based on this curriculum available on Youtube.

The later analysis draws on interviews with nine high school teachers from the school. This involves three men (T4, T8, T9) and six women teachers (T1, T2, T3, T5, T6, T7), of whom two teachers are nuns (T2, T5). All teachers interviewed were Catholic Christians and in the age range between 32 and 55 years. All the teachers have a bachelor's degree in their respective subjects and education. The interview with the first teacher (T1) was conducted over phone, while the remaining interviews were conducted at the school in three days. All the interviews were conducted by the first author in Malayalam and lasted for around an hour.

The data for Chapter 4, 5 and 6 come from teacher interviews, classroom observations and science textbooks. The Covid uncertainty had imposed severe restrictions on my data collection. Hence, I think it is necessary to describe the process. Initially, I interviewed three higher secondary Biology teachers, this involved two women and one man. I refer to them by the pseudonyms Ashna, Merina and Rashad respectively. The three teachers, who were from the same locality have Muslim upbringing and are classmates from school to graduation. Merina Miss and Rashad Sir teach in two government schools in the district, whereas Ashna Miss teaches in a Muslim management government aided school. It was decided that I could observe their classes in two chapters of 12th grade- Human Reproduction and Reproductive Health. However, the school opening was delayed for a few months due to the pandemic. When the

school reopened, Rashad Sir was transferred to a school in another district and Ashna Miss went on a long leave due to a health emergency. Rashad Sir came forward and talked to two teachers for me, who allowed me to observe their classes. I refer to these teachers as George and Wilson. George Sir teaches in a government school, whereas Wilson Sir teaches in a Christian management government aided school.

Due to Covid, the schools were opened only partially. The students were attending the in-person class after a gap of over one year. All schools were divided into two batches, where one batch attended the classes on the first three days of the week, and the second batch on the next three days. The school functioned only for three hours. The students joined the school during the pandemic period in grade 12. So the classes I observed were the first days of students in the present school, where they were just starting to familiarise themselves with each other and with teachers. The limited number of teaching periods and the approaching exams caused many difficulties for teachers and students. After I observed the first two classes of Marina Miss, she communicated that she can't afford to spend more time on the chapters and preferred to just glance over them instead of a detailed class in one period. However, in my presence, she had to spend more time; hence I had to discontinue observing her class. In this context, I approached another teacher, Lathika, who teaches in a government-aided school. So full classroom observations of the two mentioned chapters, which lasted over a period of two months, came from the class mediated by the teachers- George, Wilson and Lathika. I had extended conversations with these three teachers, which are recorded, during this period.

I also wanted to observe the 8th-grade chapter titled "For the continuity of generation". However, this was not possible as the high schools were not open during this phase. So I decided to look at the classroom lessons on the chapter broadcasted through the government channel 'Victors'. These classes are also uploaded on youtube. I also viewed online lessons of the same chapter by another teacher of a private study center, again available on youtube. I refer to them as OT1 and OT2.

The study also involves analysis of science textbooks- This includes (1) NCERT (National Council for Educational Research and Training) science textbooks of 6th to 10th standard, (2) KSCERT (Kerala State Council for Educational Research and Training) science textbooks of

6th to 8th standard (3) KSCERT Biology textbooks of 9th and 10th standard (4) NCERT/KSCERT Biology textbooks of 11th and 12th standard (KSCERT uses NCERT textbooks for higher secondary science). These textbooks were chosen as they are used by most schools in the state of Kerala.

I provide more details about the teachers, classroom observation, interview structure and focus in the thesis.

Methodological Approach

I employ discourse analysis as the methodology in my thesis, which enables me to examine the discursive space of Biology classrooms in better detail and offer insight on how language, power, rituals, practices and social norms affect the shaping of sexual subjectivities.

Discourse refers to actions that shape the ways in which meaning is constructed, conveyed, and understood within specific contexts. Discourse analysis allows for an examination of discourses as sites of struggles, where different groups endeavor to shape social reality in ways that align with their intentions and establish superiority over others. It acknowledges that social reality is not fixed or objective, but rather a product of the production of concepts, objects, and subjective positions (Hardy, Palmer, & Phillips, 2000). In other words, discourses play a crucial role in shaping and constructing our understanding of the world. Discourses are influenced by the social context and structure in which they exist, while at the same time, the social context gives rise to new discourses. This mutual constitution between discourse and social context underscores the dynamic and evolving nature of discursive practices (Fairclough, Norman and Wodak, 1997). Discourse can be instrumental in reinforcing and perpetuating existing power dynamics and social hierarchies. It serves as a means to maintain and reproduce unequal power relations between different social categories such as race, gender, caste, and class. Through choosing discourse analysis as a methodology, I explore the construction of worldviews, the exercise of power, and the role of discourse in maintaining or challenging unequal power relations within society. I adopt the strategies outlined by Waitt (2005), which provide a framework for critically examining discourses. These strategies include:

- a) Rejecting/suspending pre-existing categories: involves challenging the preconceived notions and assumptions, allowing for a more open and critical analysis of the discourse.
- b) Familiarization with the text: involves examining the relationships and connections between words and word clusters within the discourse. This involves identifying different discourses present in the text and exploring how these discourses are interwoven.
- c) Identifying key themes: involves using systematic coding methods to identify key themes within the discourses present in the text.
- d) Analyzing the establishment of validity and worth: involves examining how arguments are presented within the discourse. This includes assessing whether certain ideas are presented as common-sense, natural, and beyond questioning, thereby establishing their validity and worth.
- e) Identifying inconsistencies: involves looking for inconsistencies within the discourse, recognizing that they may reveal contradictions or gaps in the arguments presented.
- f) Exploring silenced discourses: involves examining which discourses are marginalized or silenced within the text. This includes considering whose voices and perspectives are represented and whose are omitted or suppressed.
- g) Identifying subject positions: involves investigating the subject positions of the teacher and students within the discourse. This involves understanding the participants' gender, class, sexuality, and ethnicity, as these subject positions influence their relationship to the reality constructed through the discourse.

I take a narrative inquiry approach (Bell, 2002) in this study, where I try to make sense of the institution of school and classroom, its practices, and the discursive production of subjectivities by listening to teachers' narratives, classroom observations and through closely looking at the textbook discourses. All data were transcribed manually using a software called 'otranscript'. Some of the data was translated directly to English while transcribing. However, most of it is transcribed in Malayalam and the relevant portions were translated to English during the analysis. Instances of interest were coded and codes were grouped across suggesting a theme. For instance, the discourse on 'surveillance' consisted of codes like 'classmates reporting

instances to teachers about other students', 'teachers restricting meeting places outside the school', 'teachers checking school bags', 'teachers surveilling romantic relations'. I intended to focus our analysis on how relations of power and different institutional and cultural discourses work to constitute specific sexual subjectivities. An attempt has been made to understand each discourse by contextualizing them in particular social and historical settings.

I use different analytical frameworks to analyse specific data in the thesis. Here, I use the analytical categories that these frameworks provide to (re)develop the codes. I provide a brief summary of the frameworks I use in the respective chapters.

My understanding of sexuality is influenced by my heterosexual lived experience, implying that my personal perspective and biases may have swept into research. Despite my efforts to see things through a queer perspective, I am aware that my lived experiences of cis-woman influence various aspects of the research process.

Contextualizing the Research: Understanding the Background and Setting

This section aims to explore different conceptualizations of childhood and childhood sexuality within the public sphere of Keralam. This is crucial for understanding the broader context and how macro-discourses influence the micro-discourses within schools. The section draws extensively on the work of J Devika (2013), who provides a complex analysis of specific "regimes of childhood" in Malayali society from the 20th century to the present. Devika defines "regimes" as 'historically shaped sets of rules, norms, ideas, practices, procedures, and institutions that implicitly or explicitly produce and govern childhood'. The first regime, "responsible parenting," required the parent to invest in by maintaining a stable marriage, adhering to gendered family roles, and aimed to transform the child into an industrious subject valuable to the nation.

The second regime is that of a "romantic childhood," and centers on the concept of adult-child love, *vatsalyam*, as a mode of parental interaction with children and emphasizes non-violence. Both of these regimes predominantly belong to the 20th century, whereas the subsequent regimes discussed are from contemporary Keralam. The third regime is the "aspirational regime," which

considers children as a source of hope for upward mobility within the family. The fourth regime, termed "child governance," focuses on underprivileged children who are seen as "failed" and become the targets of NGOs, local governments, and other agencies. The fifth regime, which is not discussed in detail by Devika, is the "securitized child." This regime targets teenagers and Muslim youth, portraying them as innocent and vulnerable, in need of 'saving', thereby denying their agency.

I expand on these categories of childhood regimes by examining present-day discourses. Two specific incidents are focused on to explore these discourses further. The first incident involves Rahana Fathima's son, a body activist, painting a picture over his mother's semi-naked upper body. This body art video was uploaded to YouTube and sparked divided views. The second incident revolves around the introduction of a gender-neutral school uniform in a Kozhikode school. These incidents are deemed interesting due to the debates they generated. Through the analysis of the debates surrounding these incidents, I add a new category called the "manipulable child". The concept of the "manipulable child" arises from concerns about the influence of global gender and childhood discourses, with fears of "gender confusion" being introduced among children. I present different arguments that emerged regarding these constructions.

Additionally, I explore the arguments surrounding the authority of the state versus that of parents in making decisions about children. The conceptualization of a naked body, particularly a female body, in a non-sexual context is also discussed. The first incident triggers discussions on the privacy of a child, an aspect that was largely neglected previously. Arguments surrounding the meaning of a sexual act and the boundaries imposed on children within their realm are presented. These debates also highlight the perception that children are highly unsafe and vulnerable to sexual exploitation, particularly within family spaces. I provide a detailed discussion in the thesis document.

Chapter 3: Understanding Dominant Values and Sexuality Discourses within a School

This chapter attempts to understand the dominant value system that produces a micro-culture of a school and how this legitimises and delegitimises specific discourses on sexuality. My analysis

comes from a Catholic management government-aided school located in Wayanad. I try to make sense of the institution of school, its practices, and the discursive production of subjects by looking at different discourses on sexuality within the school. The focus is to understand how relations of power and different institutional and cultural discourses work to constitute specific sexual identities of teachers and the students. An attempt has been made to understand each discourse by contextualizing them in particular social and historical settings using the methodology of thematic coding and discourse analysis.

The chapter begins with an analysis of the value/moral education programs which are part of the school. This includes examining the value education textbooks followed by the school and four episodes of sexuality health education classes available on Youtube.

I chose to analyse POC (Pastoral Orientation Centre) value education textbooks of class 6 to 10, published by the Kerala Catholic Bishops Council's Pastoral Orientation Centre, which is followed by most of the government aided Christian management schools in Keralam. During the pandemic phase, since the schools could not function, lectures based on this curriculum were produced and uploaded on Youtube. These lectures titled "Know thyself" focus exclusively on sexuality education. The textbooks are projected as operating within a secular-spiritual framework, whereas the Youtube lectures are placed within the realm of Catechism.

The analysis focuses on the specific linguistic and rhetorical strategies employed by the textbook and teachers. As it is stated in the textbook, the textbook series is written with the premise "*a fully developed human person brings glory to god*". The focus of the program is to 'regain the eroding value system by taking into consideration the signs of change'. I argue that the curriculum places sexuality within the biblical discourse of guilt, sin and sacrifice. The extensive discussion about St. Maria Goretti projects her as a role model to the students, which has serious social implications. The SCERT and NCERT curriculum introduces the discussion on reproductive choice in class 12, however, POC does it from class 9. I argue that the POC curriculum pushes the pro-life narrative very strongly through different narratives and pictures. The textbook uses charged language to evoke strong emotions among students. I discuss various constructions of abortion in the textbooks- as 'the greatest destroyer of peace (quoting Mother Teresa)', 'war against the child', 'Murder by the mother herself' and 'cold-blooded murder'. The

textbook presents the idea that individuals can change their stance from being pro-choice to pro-life once they realize the sin associated with abortion. The analysis also focuses on the scientific argumentation used to justify and shape specific moral discourse and how scientific concepts co-exist with prevailing notions of sexuality and sin. I demonstrate that the textbook employs scientific arguments to support the claim that a foetus is not just a "blob of tissue" but a "living person." It provides visual imagery, such as an image of a 21-week-old foetus, to evoke a sense of humanity of the foetus. Additionally, the textbook presents scientific evidence, such as the determination of genetic characteristics at conception-which includes the child's gender, blood type, and fingerprints, to further strengthen the argument. The textbook pushes the idea of larger families by suggesting that they foster the development of gifted children. The textbook accomplishes this by providing role models and citing notable individuals who came from large families, encouraging students to aspire to similar achievements.

In the later part of the chapter, I present narratives of nine high-school teachers of the school and explore their cultural beliefs about childhood sexuality. I attempt to understand how the cross-cutting modalities of religion, caste, sexuality, and gender of the teachers and students, shape students' sexual identity.

I use the framework of domains of power by Patricia. H. Collins (2009) to analyse teacher interviews. This framework suggests that different forms of oppression interlock to produce a larger structure of domination. The framework explains how privilege and oppression manifest in four domains- the structural, disciplinary, hegemonic and interpersonal- and shape one's experiences and actions. The structural domain of power refers to the systemic oppression and domination structured through social institutions like schools, hospitals, workplaces, religions, and other organisations. The disciplinary domain controls and oppresses through the organisational practices of rules, policies, hierarchies, surveillance, and punishments aimed to produce specific subjects. The hegemonic domain manages oppression through ideology and culture, as an essential function of social institutions is perpetuating the dominant groups' ideas and thereby normalising them. These ideas justify the organised practices and domination. The interpersonal domain of power operates through internalised biases and prejudices which are reflected in the micro-level routines and practices. Fig 1 presents a representation of Collins' framework.

Structural domain Systemic oppression and domination structured through social institutions	Disciplinary domain Controls through the organisational practices of rules, policies, hierarchies, surveillance & punishments
Hegemonic domain Manages oppression through ideology and culture	Interpersonal domain Operates through internalised biases and prejudice

Figure 1: Representation of Collins' Framework

I provide examples that demonstrate that power operates in different domains in visible and invisible ways to control, classify /categorise and discipline individuals.

In the structural domain, we can perceive how sexual moral codes are transferred to students through specific channels, of which the discipline of Biology is an important channel. As Collins (2015) says, science is an 'elephant in the room' in propagating and legitimizing social practices that perpetuate inequality.

Schools use the discipline of Biology to establish the normative notions of gender and sexuality (Bazzul & Sykes, 2011). The authority of 'value-free' and 'objective' science establishes acceptable and non-acceptable bodies and identities by categorizing some as natural and others as unnatural (Lemke, 2011). Thus, the discipline of Biology provides students with the 'correct' and 'true' knowledge about sexuality. This also means that sexuality gets limited to the biological functions of the body and that the discourse on sexuality becomes 'non-complicated'. T6 explained how Biology provides 'age-appropriate' knowledge on sexuality to students:

T6: "We have classes on this. It's clearly written in Biology textbooks. We have chapters on sex organs and changes during adolescence in class 8th and 9th respectively. So, a child who passes class 8th has enough knowledge about this".

Sexuality discourses are placed within Biology, and any discussion outside the purview of Biology is discouraged and limited. Biology classes become the site for students to know and talk about body and sexualities. Since school Biology is silent on many topics like sex practices, any discussion on these is considered illegitimate. Importantly, the discipline provides the learners with ‘facts’ and eliminates the space for opinions. Thus, school Biology discursively produces ideal sexuality by not acknowledging sexual (homosexual) desires and expressions (Bazzul& Sykes, 2011). Any deviation from the above is left to the domain of psychology, ie, counselling psychologist intervenes and ‘corrects’ the non-normative behaviours. Romantic expressions too are considered unusual, and students involved in romantic relations are sent to a counsellor . T5 mentions:

T5: “The child (a boy from 5th grade) I referred to before, the one who gave the love letter (to a girl of 4th grade) (the girl reported this to one of the other teachers which was then discussed in the staff room), I asked him to meet the counsellor. But he did not go. He was eluding me for the next few days”.

In the disciplinary domain, I talk about the surveilling network in schools. The school ensures that actors in the school are not only disciplined sexually, but they become agents who can administer and take part in the disciplining system of the school to sustain the overall larger structure. Thus, the school produces subjects who are in agreement with the dominant values and ideologies that circulate in the school and society. The actors who resist the dominant values are disciplined and surveilled.

Surveillance has become integral to school practices. This is because the surveillance not only becomes very important to the school’s functioning, but also because of the school’s role in the production and reproduction of social inequalities in relation to sexuality and religion. I show the presence of covert and overt forms of surveillance achieved through a network of gaze of teachers, parents, and students, which worked both individually and together. Surveillance is not only used by one group on another; it occurs within the group too. Among students, self-surveillance happens with a few students monitoring others, becoming associated with teachers, and establishing themselves as relatively more powerful.

T2: “Students discuss with each other what they see, like blue films and such. They tell other students. Among them, if there are any good students, they tell us that they are discussing some bad topics. In this way, we get some clues. So when students go outside, we check their bags”.

Here some students are considered good for becoming useful subjects who help in surveillance and thereby help the functioning of the structure. These students who are information providers could be indirectly rewarded by the teachers, which can be understood by the terms like ‘good students’. Each student may also self-regulate based on their understanding of norms.

Any romantic relation between students is strictly policed and controlled by different structural means and punishments, often involving parents. Strict gender boundaries are maintained by limiting interactions and cross-gender friendships. This is achieved by both physically and socially (in terms of space and activities) separating girls and boys inside the school. Any interaction between boys and girls is looked at with suspicion and considered a threat. Policing romantic relationships inside the school becomes a need of teachers, parents, and society and, hence, all of them work together. T5 stated, “students stare at each other in the class. If there are any lovers, they try to sit together however much we try to separate” illustrating the effort the school makes to control romantic relations through rules and how students try to resist these.

Surveillance becomes the mechanism by which children are identified, categorised and disciplined. Student’s gestures, speech, conduct, movements, clothes, interactions and so on are viewed suspiciously and undergo repeated scrutiny and evaluation. Students who do not fit into the ‘preferred sexualities’ are advised, punished and made to render acceptable behaviours. Students too are quite aware of the surveillance and the expected behaviours. Both students and their sexuality are marked good or bad based on how much they confirm and deviate from the structural norms.

Even though all the students are under surveillance, different students undergo different amounts of scrutiny. Many disciplinary actions are directed at girls which is a reflection of the patriarchal structure.

T5: “There are very beautiful Muslim girls in the class. Their parents are very careful. They don't allow them to come for excursions and other programs. Many times we call the parents and convince them. But when these girls get a chance they make maximum use of it (interact with boys)”.

In the hegemonic domain, I discuss two broad themes-how schools monitor the ‘undesired’ sexualities of students and how schools monitor the sexualities of ‘undesired’ students. Both students and their sexualities are marked, categorised, and placed in hierarchies and disciplined into acceptable sexual norms of society. Here, these norms and expectations are different for different participants. Patriarchal, heteronormative, religious, and cultural norms intersect to decide what an individual of a specific location should enact.

A ‘good’ child is one who enacts the appropriate gender with limited cross-gender interactions and does not express sexuality (Allen, 2007). The child should also not be corrupted with ‘too much’ sexual knowledge (Egan & Hawkes, 2007; Bhana, 2007). Let us see how these labels are attributed to girls when they deviate from the expected identity:

T5: “Unlike the old days, boys and girls have no distance between them. There is no thought that 'I am a girl; I should not stand very close to boys'. Mostly they go up to them...they are very forward with boys”.

This behaviour is believed to have been influenced by corrupting forces (Robinson, 2008) and is constantly compared with ‘appropriate’ behaviour that existed in earlier times (when the teachers were young). However, ‘too much interaction’ within same-gender students is also not considered desirable. There is a fear of homoromantic relations, and any interactions which go beyond the ‘boundary of friendship’ are not accepted as evidenced from the comment of T2:

T2:“I have doubts that boys are much closer than usual. How much, I am not sure. It is not just friendship. I don't know. However, we can read from their faces when we see some mannerisms and how they sit together. Even the way they casually sit”.

I show some school practices that are targeted at students from non-dominant groups. Even though all bodies are encouraged to conform to specific ideals, there is a stronger disciplinary

mechanism focused on women and marginalised bodies. Their bodies, attire, gestures, speech, and expressions are monitored with greater intensity.

In the context of Keralam, the rhetoric of the Muslim population as people with distinct sexuality is powerful. This is similar to hypersexualised black bodies. Collins (2004) says, “African people were perceived as having a biological nature that is inherently more sexual than that of Europeans”. We can see that this narrative has entered the school from the statement:

T3: “For them (Muslims), boys and girls sitting together, touch or sex before marriage is not an issue. It's just a biological need for them. For us, in our community, it's forbidden...we treat that (sex) as sacred. They (Muslims) don't have that concept”.

There was also a construction of Muslim girls as persons with more sexual knowledge who can corrupt other girls, hence a potential threat. This can be seen from the account:

T3: “Muslim girls interact with boys more freely as compared to other girls. There is something beyond the normal friendship between boys and girls. It's not even love. Love is something which is eternal...this is different. They just want to appear beautiful, attract and invite others”.

In the interpersonal domain, I describe how the categories of “we” and “they” arose during the interview, and how these categories create specific day-to-day interactions and shape the relation between teacher and the students.

Most of the time, Muslim students were mentioned with adjectives like “kaka chekkan”, “Muslim kutti”, “koya” and “manavatty kutti” (manavatty is a word used to refer to Muslim bride).

Teachers understand that the underlying power relations between teachers and students make an emotional connection impossible. These power relations make students feel insecure to talk about their issues to teachers as they are aware of the surveillance and view teachers as agents of the structure who gather information from students to administer disciplinary actions. Teachers feel that this is an inescapable situation. Few teachers go out of their way to break the power relations and establish a relationship based on trust with the students. This is in opposition to the

structurally established relationship, which is characterised by mutual distrust. For instance, T6 made the following comment:

T6: “I begin by saying, ‘Sincerely, I won’t tell others. You can talk to me about anything. I will keep this as a secret. You can absolutely trust me. I will help you in all possible ways, this is not good for you if you continue in the same way’. When we say this, they talk more openly. I keep that as a secret too”.

Here the teacher disapproves of the structurally assigned role of surveillance, punishment and disciplining and extends her help to resolve the issue as an ally. The statements also teachers’ struggle to establish alternate relationships within the structure.

In summary, the chapter tries to understand how schools try to construct particular sexual identities and regulate some non-preferred sexual identities within the dominant value framework. I emphasise that any different setting would reveal different hegemonic discourses.

Chapter 4: Exploring Teachers' Lived Experiences and Identity in Shaping Classroom Narratives

In this chapter, I attempt to study different aspects of teachers’ lived experiences and teacher identity that influence the narrative that teachers bring to the class. I explore the contextual factors that have shaped and formed certain positionality with the particular discourse. Here, I mostly focus on a single teacher to bring to the forefront the complexity of the discursive space. I don’t intend to pull a reductionist correlation between these factors and shaping of narratives as there is much evidence to prove otherwise. I also don't intend to elaborate on the consistencies and inconsistencies between the teacher interview and the classroom discussions, as I understand that various constraints in the classroom limit the teacher from fully practising their positionality. Here, using examples, I argue that constraints like professional obligation, curricular guidelines, examination focus, and language difficulties of students pose challenges to teachers in exercising their positionality.

The teacher, who I will be referring to by the pseudonym Wilson, teaches in a government aided school in Wayanad for the last 11 years, before which he has had another 5 years of teaching experience. The choice of selecting a particular teacher is due to many reasons. The foremost is the amount of time I had interactions with him and the time available for classroom transactions. Wilson Sir brought many stories to the class to build his narrative in comparison to the other teachers I observed. He communicated the way he conceptualised my research explicitly at various points in time. He also mentioned that I should not ‘judge’ his students when he was describing classroom incidents.

The teacher had worked on a research-based government project aiming at sensitising people about AIDS and STDs in the early years of his career. He mentions that he could understand how difficult data collection is based on his research experience, and hence readily agreed to allow me to observe his class even though I approached him at the last moment. He was not intending to teach the two units due to the Covid circumstances, until faced with my request. In the first conversation when I mentioned details of my research he said “You (indicating researchers) would call me regressive, but I know the realities of the classroom, I can not stay away from talking about certain things”. This made me think that my presence in the classroom would not have altered his narrative significantly. He felt that in my analysis, I would probably criticise his protectionist discourses which he was comfortable with. He expressed his understanding that my thesis would not have any consequences on him or his professional career, and stated that critiquing his narratives is part of the process of finishing my thesis.

I now describe some aspects that Wilson Sir mentioned in the extended conversations that were reflected or might have shaped some narratives that he brought into the class. I will provide the excerpts of classroom discourse and conversation in the thesis document, however, here I am limiting myself to a brief summary with short excerpts in brackets.

I will begin by describing how he conceptualised the textbook (textbook is only a brief indicator, it all depends on how we develop it), chapter (this is a continuation of the physiology chapter- textbook needs to talk about the scientific aspects, teachers need to expand it the social life), the purpose of the chapter (within Christians, they have pre-marital courses. Muslim students have some knowledge. There are some similar discussions in Hindu Community as well- These

classes need to enable them to stay safe until marriage). He describes his understanding of students' expectations about the chapters (students are expecting some 'masala'. There is some curiosity- we need to deliver the students' expectation without turning into a masala)

He emphasised his identity as a facilitator of the Sauhruda club (an informal space for students and teachers to discuss aspects related to adolescence) at the district level, he had been to training workshops for this and needed to take at least three sessions at other schools in the district.

He feels this role enables him to bring many broad discussions to the class, rather than just being a science teacher. Since an outside resource person is invited, he doesn't lead the Sauhruda club at his school. He stated that his interactions with the students of different schools are more free and informal, whereas the discussions are limited during the interaction with students within his school. He also talked about his experience of working in the awareness programme for HIV-AIDS, where he worked with the hospitals and talked to AIDS patients, which made him understand the seriousness of the disease.

He invoked his identity as a father to two girls at many places in the conversation and the classroom where he mentions that he has similar discussions with his children too. He talked extensively about the misconceptions and masculine understanding that students have (I try to tell them that porn is not real, if you go with this imagination to a girl or wife, you will get divorced the next day). He considers that the classroom discussion should focus on addressing these misconceptions and promoting a healthier understanding of relationships. He also shared his experiences of having misconceptions and how being a science student helped (during Pre university college, I thought women with more facial hair are more sexually active. Later, I realised that this could be part of Polycystic ovary syndrome. I had to wait until my degree, where I studied physiology and embryology, to clear these misconceptions. Since I took zoology, I could rectify it. If I had done English as a major, I would have lived with it). He mentioned being vigilant (I walk through the corridor with my ears open) enables him to understand students' conceptions.

He brings aspects of his teacher identity into a few narratives (he talks about healthy relationships in class and extends it to teacher-student relations). I described how his gender,

lived religion and community membership also shapes the narratives in the thesis. He extensively uses news incidents and movies as a resource in class. He mentioned that when he brings movies, the student could understand or experience the 'emotional trauma' happening around the process and the discussion doesn't remain as information. I describe these classroom discussions in the thesis in detail.

I also describe how these different aspects of his teacher identity, community membership, and lived experience shape particular discussions in the class.

As mentioned in the beginning, he expressed his worry and talked about the frequent cases where girls from marginalised communities elope with their boyfriends and discontinue their education. He mentions that he focuses more on protectionist discourse as this is classroom reality. In the district of Wayanad, tribal communities with their unique customs, rituals, and social norms surrounding marriage, differ from the legal framework established by the state and are often penalised. I end the chapter with a discussion about the complexity that comes from the differences in the understanding of marriage, marriageable age and social justice within communities in different power positions.

Chapter 5: Interplay of Scientific and Moral Discourses on Sexuality in Classroom

In Chapter 5, I try to understand how different scientific and moral discourses on sexuality interact and co-exist in a classroom space. I begin with a few questions, the central one being-Is it worthwhile to examine scientific and moral argument distinctions in classroom teaching (or can this distinction ever be made)? If yes, does moral discourse have an influence on scientific reasoning and, in turn, the student's worldview building? I contend that in the discourses of science classrooms, a clear distinction is either not possible or the exercise is of little use. Here, when I use the term "scientific argument," I'm referring to the arguments that are developed using accepted scientific inquiry techniques and that, at a specific moment in time, constitute the body of scientific knowledge. The moral arguments will cover all of those that are influenced by social, cultural, political, and personal values. Although making a distinction between them is crucial, only a little attempt is made to outline each one separately and explore how each of them

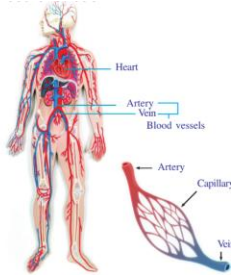
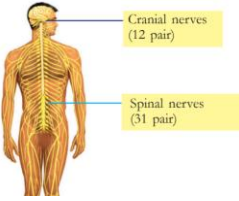
might relate to the larger classroom discourse. A significant body of feminist work in the philosophy of science has shown how social and cultural values operate in the scientific question and process (Martin, 1992; Fausto-sterling, 2012). Many works have also emphasised the value-laden nature of the science textbooks & their heteronormative bias (Bazzul, & Sykes, 2011; Raveendran, & Chunawala, 2015; Snyder, & Broadway, 2004; Nehm & Young, 2008). With this backdrop, I try to understand two of the prominent actors in the classroom- the textbook and the teacher, separately and their interaction.

I begin by analysing how the human body is represented in the science textbook. I reviewed NCERT and Kerala-SCERT science textbooks from standard 6 to 12 from the cover to the back page, paying close attention to the visual representation of the human body. Specifically, I explored various textbook depictions of genitalia and examined how ideologies are manifested through visuals in relation to the human body. I try to unfold the socio-cultural understanding of the body manifested through these depictions. I emphasise that understanding the (visual) politics (Schmid, 2012) of textbooks can help us to critically evaluate the messages and values that they promote, and to recognize the ways in which we could redesign them and bring alternate representations that can broaden students' perspectives. Through this analysis, I argue that moral meanings are ascribed to the (scientific) representation of the human body in the science textbooks. In the analysis, I compare the visual modes used in these representations to the process of genital mutilation, which involves hiding, modifying and cutting the genitals.

I use Serafini's (2010) socio-semiotic analytical framework to interpret visual images in this study. The framework consists of three interconnected analytic perspectives: perceptual, structural, and ideological. These perspectives can be seen as a set of three concentric circles, with the perceptual perspective at the centre, the structural in the middle and the ideological outer circle. The perceptual perspective involves noting the denotative content of the image, the design elements or modes, such as fonts, designs, patterns, colour, composition, layout and so on and serves as the basis for further interpretation. Structural perspective involves understanding the relationship and interaction of various design elements and interpreting the meaning they make and communicate within a given cultural context. The ideological perspective tries to analyse how socio-cultural, historical and political context influenced the creation of the image and further how the image contributes back to the cultural setting. This entails taking a closer

look at the social function of images- how images reflect social relationships, power, identities, and ideology- and how these images function to produce them.

In the analysis, I describe seven visual features/modes employed in the textbook illustrations of the human body and genitals frequently and make an effort to interpret these modes from a structural and ideological perspective. I provide visual depictions from the textbook, the depictions through which the meanings are made, in the thesis document. Here, I provide a summary of my analysis in a tabular form.

Theme	Perceptual perspective	Structural perspective	Ideological perspective
<p>The hidden and the non-existent</p>  <p>Figure 2: SCERT (2016:111)</p>	<p>Genitals concealed</p> <p>Body ends above the genitals</p> <p>Legs join each other without the genitals shown in adjoining figure</p>	<p>Discussion of genitalia is ignored</p>	<p>Implies genitalia and the surroundings need to be clothed. Establishes ‘hiding’ genitals as a marker of evolution. These become the crux of the arguments for policing clothes, particularly of women, by society. Obstructs the discourse around genitals and limits the production of knowledge and its access</p>
<p>The censored</p>  <p>Figure 3: SCERT (2019a:13)</p>	<p>Blurred or censored genitals</p>	<p>Social values that define what ‘can be seen’ and ‘talked about’ get communicated</p>	<p>Functions as a social mechanism to control and regulate sex practice, representation, and expression</p>

The disowned genitalia

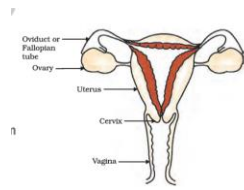


Figure 8.11 Human-female reproductive system

Figure 4:NCERT (2022a:123)

The reproductive system is drawn in isolation to the body

Abstracting the genitals doesn't give a sense of its location and size -- a possible source for misconceptions and fear

Genitalia as an abstract entity limits it within the medico-scientific discourse, limiting the discussion on pleasure and experiences

The incidental female genitalia

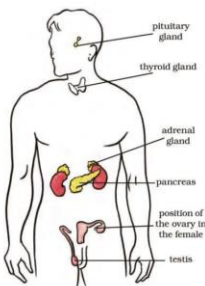


Fig. 10.5 : Position of endocrine glands in the human body

Figure 5:NCERT (2022b:85)

Female genitalia is mislocated to correctly position the male genitalia w.r.t the body

A hierarchy within the two genitalia is created

Hierarchizing genitals and prioritising the male body. Leading to disregard for the feelings and sensations related to female genitalia, and also sexual and reproductive health of women body

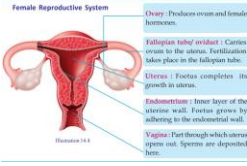

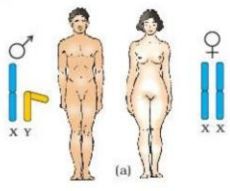
<p>The ballooned vagina</p>  <p>Figure 6:SCERT (2015:201)</p>	<p>Female genitalia shown as a stretched hollow tube</p>	<p>The procreative orientation restricts the conversation to reproductive functions and limits sexual activity to penetration</p>	<p>Can lead to misconceptions and fear, influencing choices of menstrual products and reproductive health in general</p>
<p>The non-functional vagina</p>  <p>Figure 7:SCERT (2019b:81)</p>	<p>Vaginal secretions are not mentioned /marked</p>	<p>The functions of genitalia and its significance for sexual and reproductive health are left undiscussed</p>	<p>Restricting knowledge about the female genitalia, particularly its functioning, suppresses women's bodily autonomy</p>
<p>The fair 'clean' hairless genitals</p>  <p>Figure 8:NCERT (2022c:70)</p>	<p>Genitals free of public hair and are non-darkened</p>	<p>Constructs the notion that removal or alteration of material aspects of the body is normal, desirable and necessary</p>	<p>Compels monitoring own body within hegemonic aesthetics, making the genitalia the site for control and discipline. Helps various technologies and industries which pose as solutions</p>

Table 1: Thematic Analysis of textbook visuals using Serafini's Framework

My analysis points out a tendency in textbooks to censor or obscure the depiction of genitals. This kind of censorship is not always warranted, and may lead to a narrow or incomplete understanding of the human body. Such misconceptions reflect the textbook's failure to view the human body as a biological being, and its view of the body only as a gendered sexualised subject. It is important that textbooks should promote a nuanced understanding of the human body, by acknowledging and representing diversity and not restricting the depictions to 'normative' genitalia which reinforce the binary-sex construct.

Thus I argue that, in addition to reflecting power dynamics, these images constitute a tool for exercising power. These are a part of the scientific discourse, which is also a part of the broader social discourse. Both these discourses are ideologically shaped and shape each other. Our understanding of our bodies has been (re)constructed by these discourses and has material/technological implications.

In the later section, I analyse how the Biology textbook talks about safe sex in the context of sexually transmitted diseases and how scientific knowledge produces specific sexual subjectivities and categories. I demonstrate that portrayal of 'normal sex' is not innocent, value-neutral, and inconsequential. I analyse the discursive devices used by the textbook to fit the scientific claims in a culturally appropriate value framework are examined. Below are two excerpts from the textbook,

“(i) Avoid sex with unknown partners/multiple partners.

(ii) Always try to use condoms during coitus.”

(NCERT-12th Biology, pg.47)

I contend that the above description is not value-free as we can see that there is a specific choice of words which communicates what is desired or socially acceptable. Here the word 'unknown partner' is used instead of 'partner with unknown sexual history', which would have been more specific. The concern of the scientific discourse should be the sexual history of person and rather than the familiarity with the person. This choice is a function of the cultural context where one assumes sex is initiated only in the context of marriage. Also, the textbook recommends avoiding multiple partners despite its next recommendation to use a condom. However, the crucial

question of whether engaging in sexual activity with multiple partners while using condoms is safe remains unaddressed. This omission highlights a limitation in the textbook's approach, as it fails to tackle this important aspect of sexual health and risk prevention.

I argue that 'scientific facts' are presented as going hand in hand with moral sensibilities. Thus, the textbook puts forth a morality that is shaped by science, Technology, and medicine and is in agreement with the socio-cultural norm.

The next section presents the discussion on the classroom facilitation of reproductive health chapters and follow-up interviews with three Biology teachers. I show in this section how teachers use scientific and socio-cultural moral arguments interchangeably on various occasions. I discuss some examples where teachers use cultural and moral ideals to justify the scientific claims in the textbook and use scientific arguments to justify the cultural practices. For instance, Merina Miss in the classroom put forth the notion of 'mental age' to justify the practice of heterosexual marriages where the man is older to the woman.

I further show that when the textbook focuses on how 'promiscuity' produces disease, teachers emphasise how it can lead to sexual anarchy, fatherless children, unsatisfied spouses and broken relations. Partner selection persists as the preferred (and only) strategy while discussing safer-sex during interviews by the teachers. Sexuality was placed within two discourses that were considered incompatible—the discourse of love and the discourse of lust. This romantic ideal of heterosexual monogamy identifies sex within the relationship as safe and associates sex outside the purview with immorality, risk and disease. I argue that teachers' understanding of safe sex is shaped by their experience of gender, religious doctrine and lived religion, personal experiences and value, experience of being surveilled and community membership. Below are two excerpts from Rashad Sir, where he explains how he discusses safe sex practice with the students and deals with the contradiction that the textbook puts forth.

“When discussing STDs with students, we discuss sexual pleasure. It's the same pleasure whether she's the most beautiful woman in the world or not--this is something I've read. This was some research. So I tell them that they don't have to go to multiple partners for this pleasure. So try to stick to one partner.”

“The textbook recommends avoiding multiple partners first, then using condoms. For example, if we consider illiterate people, such as truck drivers, I use that term. They were the ones who were infected with HIV the most. So, for those who stay away from home, there is the option of using condoms. As a result, the discussion about using condoms is primarily for such people. Ideally, we should avoid having multiple partners.”

I elaborate on the masculine perspective on sex that has shaped the above narrative. Thus, I argue that scientific-moral discourse of sexuality in science classrooms indicates that the discourse forces a romantic ideal of sex confined to a committed, faithful, monogamous heterosexual relationship. I further suggest that discourse of science and morality are not distinct; rather, they fit together and inform each other to produce, discipline, and regulate sexualities.

Chapter 6: Navigating Troubled Waters: Examining Classroom Environments in Discussions on Sexuality

The discussions in Biology classes about the physical and sexual aspects of the body shatter what Allen (2007) refers to as the "official school discourse" that tries to make students' sexuality invisible and unheard. While these classroom discussions have the capacity to undermine the formal nature of the classroom and the power relation between teacher and students, teachers try to navigate this situation through certain conscious and unconscious choices and actions. This chapter aims to describe some instances to demonstrate the troubled and tense environment in the classroom invoked through these discussions as well as some general patterns in actions that teachers used in common to re-establish classroom 'normalcy'.

I begin this chapter by citing a specific instance from an online class for 8th grade in the chapter “For the continuity of generation” that is uploaded on Youtube. The woman teacher who seemed to be in her late 20s or early 30s interacts with the students through chats and hence constantly monitors and responds to the chat while talking. Towards the beginning of the class, the teacher receives many comments that sexualises her on the chat and decides to ignore them. It is possible since the class is streamed on a public platform that these comments are not from students. However, similar instances of teachers getting sexualised in the classroom were shared in the

previous interviews with high school teachers. When the teachers start to talk about the process of fertilisation, a comment “teacherk chiri varunu- teacher is about to laugh (meaning to say teacher is shy)” appears on the comment box to which OT2 responds as

OT2: “There is nothing to laugh here. This is a natural process that happens with all males and females. There is nothing to make fun of or laugh at. This is something which all of us have. Don’t we have kidney and liver? Male and female reproductive organs are also something as normal as these”.

Here, when the student tries to make the teacher feel sexually ashamed, OT2 makes a deliberate effort to normalise this discourse by invoking the naturalness of the process and the body. Most teachers, especially during the beginning of the conversation emphasised the innate naturalness of emotions, feeling and act of sex.

According to Wilson Sir in the extended conversation, laughter and cross-communication among students are frequently observed during these lessons. Wilson Sir explains that when students are caught laughing; they are singled out and asked about the ongoing discussion among their peers. This questioning renders them speechless and helps regulate the students’ behavior. However, in the classes that were observed, this occurred rarely. This may be attributed to the unfamiliarity of the students with each other and the arrangement of spaced seating, which potentially hindered the natural occurrence of such interactions. This strategy has become routine for the teacher as evidenced by an instance where the teacher assumed the student was having a sexually explicit conversation with his friends (while the student was attempting to borrow a pen). This sparked a discussion about the naturalness of the reproductive process and human body. This iterative act functions to shift the discourse on sexuality and produce a particular teacher identity.

The chapter will discuss more instances of the tension that was built in the classroom and the strategies employed by teachers to navigate this terrain. Briefly, teachers also try to limit the discussion to the textbook discourse in the class on specific themes which enables them to distance themselves from the content. Discussing the topics by highlighting their importance from the examination point of view also helped teachers to maintain the topic within the official discourse. In many places, the topics around the themes are presented as potential 2 or 3-mark questions.

During the classroom observations, it was also observed that even though the class was bilingual with predominance of Malayalam speakers, teachers used English vocabulary when there were references to sexual acts and genitals. This was explored further during the conversation with teachers, where they talked about their inhibitions in using Malayalam terms in the class. The conversation is analysed to understand the reasons behind this choice.

Teachers feel that when they use the Malayalam words, it can become 'loose talk'. English, being a foreign language, gives teachers an upper hand while communicating and helps maintain the adult-child distinction. English, which will convert the space into a formal one, helps the teacher regain power and feel less vulnerable. Teachers shift to English to avoid students visualising and fantasising when they talk about sexuality. The non-familiarity and the formal status of English helps the discussion to look decent and legitimate. Language alienation helps the students to not think about their bodies and discuss these topics objectively. The teachers also do not want the students to think about their bodies as that can be shameful for students. Discussion on sexuality is an uncertain realm which can go into rugged terrains and evoke different emotions (pleasant and unpleasant) among students, which teachers prefer to avoid. English helps to talk about the body objectively without associating any emotions. Many of the Malayalam words about sex, both formal and colloquial, are used as abusive words. Since they evoke different emotions among the audience, teachers refrained from using them.

I draw a conclusion by highlighting teachers' concerns about losing control and authority when talking about issues pertaining to the body and sexuality. Any discussion of sexuality is uncomfortable and unsettling, and it becomes more difficult when one tries to maintain a hierarchy with the audience. The unpredictability of the students' questions that may surface in a casual setting causes anxiety. Teachers feel vulnerable because students are familiar with and knowledgeable about many aspects of sex through porn. The limitless nature of porn and its exposure can raise unpredictable and unacceptable questions in class. Teachers are concerned that their responses to these "culturally inappropriate" questions will come across as shameless.

Chapter 7: Conclusion

In the concluding chapter of the thesis, I provide a summary of the work and reflect on the process of research. The chapter tries to connect the thesis chapters to enable the understanding of complex processes in the classroom which is situated within the larger structure.

The thesis recognises that teachers are left without much support to confront cultural barriers or to talk about things that are otherwise a taboo. The thesis emphasizes the importance of creating a supportive environment for teachers, sexuality educators, and researchers to address these challenges. It suggests that open conversations about sexuality require teachers to have comfort and ease in discussing their own sexuality and bodies. The thesis identifies the need for workshops, training and discussions that can provide teachers with the opportunity to develop this comfort. Furthermore, the thesis recognizes that building comfort and ease around sexuality is a gradual process and not something that can be achieved in one step. Therefore, workshops should be designed to help teachers overcome inhibitions gradually. Teachers need to get more opportunities to think and reflect on the prejudices and values they bring to the school and how it impacts the pedagogical practises. I share the need of sexuality educators or researchers to reflect and work on the presumed antagonism that teachers feel.

The thesis also discusses the role of language in conversations around sexuality. Teachers faced some difficulties in using Malayalam terms while teaching Biology chapters on Human Reproduction and Reproductive health. They switched to English terms to describe genitalia and reproductive processes to formalise the discussion. This switch may hinder the students' understanding of reproductive health and makes it difficult to communicate openly. So it is essential to normalise Malayalam terms and remove the taboo associated with these words. Recognising and acknowledging their experience of shame is crucial to design and improvement of teaching training programmes.

I also reflect on the experiences of students in aided schools in Keralam, and highlight the non-secular nature of these institutions, which is largely ignored. There is a need for more studies that look at what moral education children receive from religious institutions and if/how the larger socio-political context influences this. Finally, studies on religious hegemony in publicly funded

educational institutions and experiences of minority students within such institutions will provide insights to reimagine such spaces to disrupt the larger societal inequalities.

The thesis provides possible suggestions and alternatives to reconceptualise some discourse around body and sexuality in the science textbooks and teaching (which has been critiqued in the thesis chapters). Such discourse can widen the horizon of sexuality discourse within the classroom that goes beyond the heteronormative constructs and creates safe spaces for students and teachers to discuss sexuality.

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