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Humane Education and Human-Animal Interaction: Implications to Humane Primary Education in China

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Declaration

I declare that I am the original author of this dissertation, unless the contributions of others are explicitly mentioned. This dissertation is the result of my own efforts and has never been submitted for another degree at the University of Glasgow or any other institution.

Summary

This dissertation addresses the necessity, urgency, and efficacy of developing humane primary education in China. It is centred on a systematic literature review of 35 publications on the definition, development, challenges, and improvements in humane education. Humane education (HE) in the 21st century incorporates multiple concepts of animal ethics, ecological environment, and social justice. This study examines the advantages and disadvantages of humane primary education in China by comparing the evolution of humane education in the United States. In addition, the findings address the reasons for humane education, which corresponds to its three dimensions of major challenges globally and in China, including animal cruelty and interpersonal violence due to a lack of empathy, insufficient environmental education, and social injustice. The improvements combine Nussbaum's theory of the capabilities approaches, loving-kindness theory, and Pestalozzi's loving education theory in response to three challenges and provide solutions including transforming social ideology and establishing an all-encompassing education system and partnership. In the practical section, this study critically investigates how human-animal interaction (HAI) can advance humane education through fostering empathy, prosocial behaviour, and responsibility. Likewise, the study finds that treating empathy and prosocial behaviour as skills may help establish a link between animal-oriented empathy and human-oriented empathy. Finally, on the basis of the findings of this review, potential contributions are offered for future research and policy formulation of humane education, identifying the social need for additional research within the Chinese context. Humane primary education in China has the potential to contribute to developing a more inclusive system in the future. Challenges and concerns such as the generalizability and accuracy of research findings remain to be resolved.

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1. Introduction

1.1. Research Problem

This study advocates for the development of humane primary education in China by analyzing the mainstream definition and development of humane education, the major challenges facing society today, and the improvements for humane education. The subject of this study is humane primary education in China, which has particular geographic significance. From a global perspective, this research investigates humane education worldwide, while integrating Chinese social and educational status. Provide critical references for the development of humane primary education with Chinese characteristics. Overall, this study constructs a theoretical-practice framework for the development of humane education and draws attention to humane primary education in China, thereby partially filling a gap in the existing research.

1.2. Research Background

Animal cruelty, interpersonal violence, all types of environmental problems, and social injustice are still prevalent worldwide. The concept of humane education originated with teaching human virtue during the European Renaissance (Kai, 2009). Over time, the definition of humane education expanded to the well-being of both humans and all animals (Angell, 1884). Humane education in the 21st century focuses not only on the interdependence of humans and animals, but also on the ecological environment and social justice (Jalongo, 2014). Humane education's connotation of animal protection, environmental ethics, and human rights parallels the three social challenges and can be used as a strategy to address them. Nevertheless, there are evident regional differences in the

evolution of humane education. The United States did not initiate the humane movement and systematic efforts to teach animal kindness principles until the second half of the 19th century (Faver, 2010). Humane education in the United States has undergone stages of germination, development, decline, and revival throughout its development. In contrast, the development of humane education is in its infancy in developing countries like China (Samuels,2018). Although traditional Chinese education is centred on Confucian culture, it emphasizes the teaching of morality and ethics, which corresponds to a degree with the fundamental values of humane education (Bai, 2010). However, under the influence of China's reform and opening up in the 1970s and 1980s, socialism and neoliberal socio-political ideology emerged, which viewed education as an investment of value to promote the development of a market economy (Olaniyan & Okemakinde, 2008, p. 157). The link between education and economic returns has resulted in a severe lack of quality education (Bai, 2010), and a lack of concern and empathy has become a widespread social phenomenon (Sellars & Imig, 2021). Moreover, this utilitarian educational value has spread from the field of higher education to the field of primary education (Bai, 2010).

Against such a social ideological and cultural background, this study proposes three research questions:

1. What are the origins, mainstream definitions, and development of humane primary education (HE) in China and how does human-animal interaction (HAI) affect humane education among children?
2. What are the main challenges?
3. What kinds of improvements are necessary to enhance humane primary education in China?

The first research question investigates the background. The mainstream definition of humane education and the United States' development of humane education are analyzed. And this part also examines the development of humane primary education in China chronologically. The second research

question identified the issues. The necessity for the development of humane education is highlighted by addressing the three main problems in contemporary society, including violence caused by a lack of empathy, a lack of environmental education, and social injustice. The third research question is concerned with enhancements. It provides pieces of evidence for the future development of humane education from a theoretical and practical standpoint, as well as references for the improvement of humane primary education in China.

1.3. Research Design

This study is framed by interpretivism and constructionism as its ontological and epistemological paradigm. Since within the framework of interpretivism, it can not only promote the depth of thought on humanitarian-related topics to provide more complete answers to my research questions, but also promote the further growth of this discipline from a developmental perspective. Furthermore, this study employs a qualitative methodology that investigates the topic in depth from a holistic standpoint and expands comprehension of content. The extended literature review approach is used in this study to critically summarise and analyse several pieces of literature on the same issue, contributing to the generation of new knowledge on the subject. As a theoretical foundation, this research project chooses Nussbaum's theory of the capabilities approaches, loving kindness theory, and Pestalozzi's theory of loving education. These theories are used to discern and comprehend the interrelationships between research purposes and literature, providing "reasonableness" for explanations (Cohen et al.,2018). In the section on working with data, ethics and morality permeate the entire procedure. This study always adheres to the principles of openness, transparency, and honesty, from data collection to inclusion and exclusion criteria to the method of

thematic analysis (BERA, 2018; University of Glasgow, 2020). Finally, the validity of the research was critically evaluated.

1.4. Research Theory

The theory of capabilities approaches developed by Martha Nussbaum is a normative framework for evaluating individual well-being, social arrangements, policy design, and social change (Robeyns, 2005). It primarily centres on what people can do and be, i.e., human capabilities, which provide a theoretical foundation for the human development paradigm (Robeyns, 2005). The study selects Martha Nussbaum's capabilities approaches as one of the theoretical guidance, as a critical response to the social status quo, which measures only economic outcomes without regard to people's dignity and quality of life (Nussbaum,2011). Additionally, this study adopts the loving-kindness theory. A harmonious and loving-kindness view of Earth manifests itself in equality and democracy at the community level (Tordzro, 2018) and in the peaceful coexistence of Earth with other planets (Mazzucato, 2018). The loving-kindness theory is closely associated with compassion, empathy, and altruism while emphasizing the sustainability of human existence and the planet (Uflewska & Tordzro, 2022), which is highly compatible with the core concepts of humane education covered in this study. Moreover, In the context of contemporary neoliberal education that lacks care and compassion, this study selects Pestalozzi's loving education theory which is based on love, kindness, autonomy, and the humanization of natural child development (Sellars & Imig, 2021). The love educational theories are founded on "emotional love, safety, and kindness" (Gutek, 1968, p.83), which includes using morality and ethics as teaching guidance, fully respecting children's subjective initiative in achieving children's all-around development of students, and the creation of a loving and caring learning environment.

1.5. Structure of the Dissertation

This study is divided into six sections. The introduction briefly summarises the overall context and addresses the research problem, background, design, theory, and structure. The second section describes the methodology design and data processing procedure, taking into account ethical and moral concerns throughout the research scope. The third, fourth, and fifth sections of the study are the empirical chapters. According to the logic of the research background, identifying issues, and the discussion of potential enhancements, three research questions are answered in turn. The final section is the conclusion, which evaluates the study's contributions and practice and discusses prospective research directions on this topic as well.

2. **Methodology**

The purpose of this chapter is to provide information about the methodology and research design: the rationale for the selection of literature is explained, the methods of data generation, selection, and analysis are described in detail, and ethical issues are considered. Although more in-depth ethical considerations are listed in section 2.3. below, I recognized that ethical issues affect every stage of this research process. Thus, ethics have been considered when interpreting decisions regarding data search strategies and data analysis. It is hoped that readers are able to evaluate the credibility by providing plain and transparent information about the literature and research process (Ravitch & Mittenfelter, 2002).

2.1. Research Design

This section describes the design process of this research, from the macro research paradigm to the specific research methodology, method, and theories.

2.1.1. Research Paradigm

This study adopted interpretivism and constructionism as its ontological and epistemological paradigm. Interpretivism holds that the essence of society and the world is "the subjective world of human experience" (Cohen et al.,2018, p.19), which focuses on the individual's interpretation of the world. Supporters of interpretivism believe that the understanding of the world is exploratory, that research and theory develop simultaneously, and that the significance of the research is the insight and comprehension of human behaviour (Cohen et al.,2018). This study employed interpretivism as its research paradigm to help me answer my research questions effectively. First, the definition of humane education is an interpretive and evolutionary

concern. Since the European Renaissance, the term humane education has been extensively used to describe a component of liberal education that emphasises "the study of humanity" (Kai, 2009). The modern concept of humane education encompasses compassion for all living beings and environmental stewardship (Jalongo, 2014). However, knowledge, comprehension, and measurement of humane education's effects remain limited (Unti & DeRosa, 2003). Humane education is therefore still in a state of potential development, and its significance depends on the future diversity of human comprehension. In resolving the question of how human-animal interaction (HAI) impacts humane education, most of the prior kinds of literature adopt an interpretivist perspective. From the perspective of teachers and students, their thoughts, feelings, and understanding of the relationship between animals and humane education are experienced and analyzed (Daly&Suggs,2010). There are numerous benefits to utilizing interpretivism as a research paradigm: First, taking subjective human experience as ontological guidance emphasizes the inner individual in order to stimulate people's subjective initiative and promote the greatest depth of thought. Second, the exploratory epistemological nature facilitates a developmental perspective on the world among humans. Finally, the paradigm of interpretivism can promote the multidimensionality and diversity of theories when influenced by distinctions in geographical, cultural, and social factors.

2.1.2. Research Methodology and Method

This study employed qualitative methodology. Qualitative research is defined as "the systematic collection, organisation, and interpretation of textual data derived from interviews or discussions"(Malterud, 2001, p.483). It is used to investigate the significance of social phenomena experienced by individuals in their natural environment (Malterud, 2001, p.483). In contrast to

quantitative research, which focuses on large-scale and efficient research, qualitative research focuses on human society and comprehending the richness of human experience (Cairney & St Denny,2014). To address the primary objective of this study, this exploratory qualitative research was able to provide an extensive evidence base and rationale for the research. First, qualitative researchers can obtain an in-depth comprehension of their topics and ensure the breadth of their research. For instance, the concept of "humane education" is not precisely defined, but rather fluctuates according to individual comprehension. This research employs qualitative research methodology to gain a comprehensive understanding of people's conceptions of humane education in different eras and regions. Second, qualitative research frequently takes a holistic approach, allowing researchers to investigate various aspects of a subject. Multiple pieces of literature are incorporated into a qualitative research framework to investigate the intersections between sociocultural and historical factors in humane education (Unti & DeRosa, 2003).

This research chose the extended literature review method to answer a series of research questions. First, the extended literature review is capable of incorporating a number of empirical findings, in accordance with the holistic approach of qualitative research. Using this research strategy to examine the definition and evolution of humanitarianism is more effective and exhaustive than conducting a singular study. This study explores the progress of the definition of humanitarianism and the impact of human-animal interaction (HAI) on humane education in order to provide empirical support for the shortage of humane education in China. This investigation entails international connections that cannot be adequately addressed by a single case study. Only by conducting an extensive literature review and comparing the past, present, and future of humane education in developed countries (Unti & DeRoss, 2003) with the concept of humane education in the Chinese education system (Samuel, 2018) can we fully reflect the cross-national

connection of humane education. In addition, extended literature review strategies from previous research on the topic of humane education can critically summarise this literature by categorising recurring and common themes. Finally, an expanded literature review method can contribute to establishing the validity and dependability of study findings by doing more than just rating the quality of the relevant evidence. Through a comprehensive literature assessment, it can also identify gaps in the development of humane education between countries, thereby contributing to the development of new knowledge on the subject and informing policy and practice.

2.1.3. Research Theory

As a theoretical guide, this study utilised Nussbaum's concept of capacities approaches, loving kindness theory, and Pestalozzi's loving education.
The theory of Nussbaum's capabilities approaches comprises primarily of two fundamental normative standards. First, moral significance is necessary for freedom to attain fulfilment. Second, the freedom to attain well-being should be understood in terms of individuals' varying capacities (Robeyns, 2005). Martha Nussbaum (2011) generalises the fundamental concepts of the general capabilities approach into two clusters: the evaluation of the quality of life and the application of a theory of justice. First, the focus of quality of life is on what individuals can effectively do and be. Sen (1992) defined function as what individuals do in life, which includes everything of value in life. Seven of the ten essential human qualities identified by Nussbaum (2011): life; bodily health; bodily integrity; senses, imagination, and thought; emotions; practical reason; play all fall under the category of quality of life. It prioritises and chooses the freedom to be a complete individual over achievement. Second, the theory of social justice is founded on securing the quality of life, and its connotation focuses primarily on women's issues and

equality rooted in dignity. According to Nussbaum (1999), human dignity is at the centre of modern democratic thought and practice throughout the world, and it should be respected by laws and social institutions. The body integrity in Nussbaum's Central Human Capabilities (2011) focuses on personal integrity from the standpoint of physical liberty. The affiliation (including equal social and self-respecting social basis without race, gender, or religion) and control over one's environment (including political freedom and property freedom) are from a macro-social perspective highlight the integrity of human dignity as a part of society. In addition, Nussbaum (2011) emphasises the interconnectedness of humans and other species, which provides an ecological justice perspective for the theory.

Loving-kindness theory is rooted in ethics education. This indicates that in the era of artificial intelligence, ethics education is crucial for peaceful, harmonious coexistence and compassionate behaviour (Uflewska & Tordzro,2022). The theory of loving-kindness has two levels of content. The first is the perspective of coexistence on Earth. This theory necessitates the anthropocentric construction of an interdependent global system by humans (Mazzucato, 2018). It emphasises the possibility of Earth coexisting with other planets in a larger cosmic context (Mazzucato, 2018, p. 806). The second is the national concept of respect and equality. Examining the ethnic languages of Hawaii and the Pacific region, Uflewska and Tordzro (2022) discovered that the values of equality and respect play an essential role in promoting local sustainable development and cultural diversity. The theory of loving-kindness has created a set of ethical and moral systems for all human beings based on love and kindness, both at the level of the earth and national communities. According to Berberich et al. (2020), fostering tolerance and harmonious coexistence among oneself, others, and the natural environment is a crucial issue in contemporary society.

Pestalozzi's loving education theory advocates a holistic and caring approach to education, which believes that the purpose of education should be founded

on the moral, intellectual, and emotional development of the child. The educational theory of love has several key principles: The first is the love-based principle. Gutek (1968) made it abundantly evident that the education of love is founded on "emotional love, safety, and kindness" (1968, p.83). In addition, moral education, as an integral component of the education of love, is devoted to affection and care (Rein, 1927). Sellars and Imig (2021) contend that compassionate pedagogy and ethical care not only make students happier and more connected, but also shape them into more moral and democratic citizens. Second, the sensory-based learning principles. Pestalozzi advocated a multisensory approach to experiential education. Gravil (1997) introduced the concept of "feeling before thinking" to emphasise the importance of sensory activities in the learning process (p.234). Third, cultivate a sense of mutuality between teachers and students by fostering an environment conducive to relaxation. Through the cooperation of students and teachers, Pestalozzi's education of love cultivates a sense of mutual affection and care rather than a competitive environment (Gravil, 1997). From the viewpoint of the student, Pestalozzi (1894) encourages pupils to participate actively in the learning process by fostering self-reflection, independent thinking, and problem-solving. Teachers should be like "mothers" and help students learn and develop capabilities (Sellars &Imig,2021).

2.2. Working with Data

This section describes the process of working with the data, including specific procedures of data collection, criteria for data inclusion and exclusion, and the method for data analysis used in this study.

2.2.1. Data collection

This study is based on prior research on topics such as humane education and human-animal interactions using secondary data. The design of the data

collection for the study was based on a search for pertinent terms and phrases in various educational databases. Google Scholar, Science Direct, Taylor & Francis Online, and the University of Glasgow Library are the main scholarly literature search engines that I have identified. The primary reason for selecting these four databases is that they can not only exclude past and recent documents based on the timeline, but also locate authoritative, relevant documents in the academic field to which the required documents relate. This provided a fundamental assurance of the usefulness and precision of the research materials. Initially, I conducted a Google Scholar search using the terms "humane education" and "human-animal interaction" in relation to my area of study. It is evident that these key terms are excessively general; 114,000 documents contained themes that were related. I combined the keyword replacement and refinement search approaches after realizing that the search terms were too general and revised my search parameters in accordance with the three research questions. The meanings of the terminology employed in research can alter dramatically over time (Cohen et al.,2018). To ensure the compatibility and consistency between the original research and this research, researchers must be adept at using replacement keywords. For example, "humane education" can be replaced with "animal welfare education," "ethical education," "character education," and "kindness education".

According to my research questions, the search keywords used for the literature search were as follows:

"Humane education", "definition", "development", "children", "primary education", "China"

And

"challenges", "empathy as a value", "animal abuse" or "animal cruelty", "violence", "environmental education", "social justice", "social injustice", "economic inequality", "racial and ethnic discrimination" " or "racism", "gender inequality", "primary education", "China"

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And

"Nussbaum's theory of the capabilities approaches", "Loving-kindness", "Pestalozzi loving education", "human-animal interaction (HAI)", "humane education", "animal-oriented empathy", "human-oriented empathy, " transference" "Empathy as a skill", "prosocial behavior as a skill", "children", "primary education", "China".

2.2.2. Inclusion/ exclusion criteria

Although refining the search terms reduces the number of documents generated, it is necessary to formulate a series of inclusion and exclusion criteria to filter the literature in conjunction with the research objective in order to determine the final literature list. The inclusion criteria for the studies were based on the purposes of this research, which were expected to address three research questions. Regarding the definition and history of humane education and theoretical topics, I set no age restrictions on the literature. To ensure the validity of this research, I screened studies published between 2000 and 2022 before discussing the major challenges of contemporary society and the current state of development. In addition, all of the journal articles selected for this study are written in English by experts in the field of education and have undergone peer review to assure the quality of the research. Throughout the screening process, I respected the work of other researchers, and critical reading assisted in determining the accuracy of the reviewed research.

Similarly, the exclusion criteria for this study are primarily based on the 9 steps suggested by Cohen et al.(2018): determine the purpose and problem of the research, familiarize with the original research, evaluate the data, check data limitations, check ethical issues, and ensure that the original research is consistent with this study, adapt the data to the study, format the data, analyse the data, and then report the results (p.591). In conjunction

with the process of staged evaluation (Cohen et al., 2018), 2298 papers were initially screened through titles and subjects. In the second round, the remaining 106 papers were evaluated by perusing abstracts. In the end, 35 papers remained as the primary literature framework for this extended literature review.

2.2.3. Data analysis

This research adopted thematic analysis as its data analysis method. As an independent qualitative description method, thematic analysis is primarily defined as "the method of identifying, analysing, and reporting patterns (themes) in data" (Braun & Clarke, 2006, p.79). One of its characteristics is that it is highly theoretical and can provide a theoretical framework for qualitative data analysis. Using humanitarianism as an example, the diverse perspectives of different researchers on the concept of humane education in the literature are examined by category discussion to improve new ideas or establish their own viewpoints. Additionally, thematic analysis places greater emphasis on the latent level of semantics, which is more interpretive from an epistemological standpoint. According to Braun and Clarke's (2006) summary of the six stages of the thematic analysis, this study began by reading the titles and abstracts of initial pieces of literature to familiarise itself with their topics, contents, and contexts. Initial coding was generated by labelling and categorising fragments of relevant literature according to the research question. The following step was to analyse the code using a mind map to identify connections between topics in the literature. Furthermore, a more in-depth investigation of the substance of each topic, as well as a name for it. Finally, this study chose the thematic literature that best fits this research and conducted the final extended literature evaluation.

2.3. Ethical Implications

Due to the fact that this study is an extended literature review, and the research questions were answered using freely available literature, no University of Glasgow ethics approval was required. However, the availability of data does not absolve researchers of the responsibility to resolve ethical concerns (Cohen et al., 2018). Hammersley (2021) asserted that ethical principles include minimizing harm, privacy and confidentiality, and autonomy. Since research does not entail direct contact with research subjects, these concepts may be deemed unnecessary when performing an extensive literature review. However, adherence to the BERA ethical principles (BERA, 2018) and the ethical standards of the University of Glasgow are required in this work, which entails displaying "an ethic of respect for the person; knowledge; democratic values; the quality of educational research; and academic freedom." (BERA, 2018, p.5).

First, the process of literature review is susceptible to bias. During the literature review, researchers may be susceptible to their own subjectivity, and their preconceived notions or beliefs about the topic may influence the research outcomes. Therefore, it is necessary for researchers to maintain an open mind, abandon prior cultural assumptions and attitudes, and embrace the culture of the researched individual (Hammersley, 2012). Second, the literature retrieval, search terms, inclusion and exclusion criteria, and data analysis methods have been all consistent with the principle of research process transparency. All aspects of this extended literature review have been presented publicly in the preceding sections, which adhere to the principles of honesty in the University of Glasgow's Code of Good Practice in Research (2020). Transparency in research-related decision-making and actions has been regarded as a crucial element of moral ethics (BERA, 2018; University of Glasgow, 2020). In addition, this study focused on ethical writing, which included avoiding plagiarism. According to Kolin (2015), "ethical writing is

clear, accurate, fair, and honest" (p.29). This was manifested consciously through the ethics of respect and care as a value orientation, reflecting the diversity and breadth of research. In particular, ethical writing requires researchers to respect the cultural work of others by using consistent citation methods in accordance with university regulations in their research.

2.4. Strengths and Limitations of the Research Design

The strengths of research design can compensate for the gap in previous research to a certain extent. First, the interpretive and constructionism paradigm has been used as a value guide for the methodology, creating a thorough theoretical framework to have a better understanding of the issues surrounding humane education. Second, a qualitative method with in-depth and holistic qualities was used to address the research needs of humanities and social sciences. Adopted qualitative research methodology can not only deepen the understanding of the interaction between humane education and human-animal interaction vertically, but also expand the multiple dimensions of the topic in the context of the times and regions horizontally, ensuring the breadth of research. Lastly, based on the methodological framework constructed by interpretivism and qualitative research, this study chose extended literature review as a research method, which not only summarizes the research topic more comprehensively and critically, but also promotes the development of new knowledge in this field by establishing feasibility.

However, there are some limitations to this research design. On the one hand, this study employs small sample sizes, meaning that the results cannot be readily generalized to a larger population. For example, despite the fact that humane education has existed in the United States for a long time and has a diverse set of traits (Unti & DeRosa, 2003). However, it is not typical to only cite the United States as an example. On the other hand, qualitative research is highly dependent on the researcher's interpretation of the data,

which can introduce subjectivity and bias into the analysis. Moreover, the method of extended literature review makes it challenging to synthesize research findings. There are numerous similar or contradictory conclusions in the relevant literature. For instance, despite the substantial amount of research showing the beneficial effects human-animal interaction can have on the advancement of humane education. However, some studies have shown that animals have no positive influence on the development of empathy in children (Daly & Morton, 2015). As a result, the practical application of this methodology may make it challenging to generalize research findings and draw meaningful conclusions. In addition, although compared to a single study, an extensive literature review can guarantee the depth and breadth of research to some extent, its scope is always constrained. Only published research can be included in a literature review, which means that researchers may overlook vital information that has not been published or is not easily accessible. Lastly, although the literature years of some chapters are constrained, there are still a large number of old evidence and data references. With the progression of time, the definitions and associated theories of humane education have evolved, and these data and evidence may lack precision.

This chapter provided an overview of the research's methodology and data analysis. Employed the paradigm of interpretivism and constructionism, qualitative research methodology and research method of extended literature review as the research design, as well as described theories of Nussbaum's (2011) capabilities approaches, loving-kindness (Uflewska & Tordzro, 2022), and Pestalozzi (1894) loving education to provide a theoretical framework. In order to guarantee the rigour of the research, an ethical perspective was incorporated into the data collection, analysis and writing phases. Lastly, the evaluation of the ethical implications and the research design critically demonstrates the whole process of research.

3. Understanding of Humane Primary Education in China

3.1. Overview

This chapter addresses the mainstream definition and development history of humane education (HE) in chronological order, and elaborates on the past, present and future development of humane primary education in China.

3.2. The Origins and Mainstream Definitions of Humane Education (HE)

The origins of the word "humane" are the Latin humanus and the French humane (Arkow,2010). Its earliest definition used only words like gentleness, kindness, politeness, and friendliness to describe human behavior, with no connotation of animal protection (Arkow, 2010). Samuel (1755) defined humanity in his Dictionary of the English Language as "good, civilized, benevolent and virtuous". By the end of the nineteenth century, compassion and sensitivity toward "lower animals" were incorporated into definitions of "humanity" (Arkow, 2010). The concept of humane education (HE) dates back to the early European Renaissance. It is regarded as a component of nature education, which aims to contribute to "more humane research" by inculcating virtues and transmitting a culture based on particular values (Kai, 2009). Early HE was closely tied to the humanities, while science was eliminated as its opposite (Scruton, 1980). Similarly, the emphasis of HE during this time period was on the education of humans and human interests, and not the relationship between human and animal welfare. George Thorndike Angell (1884) popularized the concept of HE in the late nineteenth century by capitalizing on children's natural interest and curiosity in animals. Angell's advocacy for HE seeks to instil in children compassion, empathy, and respect for all living things, including their fellow humans. In America during this time, HE was viewed as "an activity that encourages goodness in people" (Kai, 2009).

Milburn (1989) defined HE as "the development of altruism and compassion in a hostile environment" (p.77). HE encompasses both prosocial behaviour at the behavioural level and compassion and empathy at the emotional level, according to this concept. According to Ascione (1997a), the common goals of HE were later refined to "instil, strengthen, and improve young people's knowledge, attitudes, and behaviours towards human and animal life in a kind, compassionate, and responsible manner" (p.60). Currently, HE includes a wider range of topics, such as compassion for humans and animals, respect for all life forms, and the interdependence of humans and animals.

Although the concept of HE has been expanded to include the interdependence of all living things on earth in the 21st century, its objects of action are still limited to "living life forms." Currently, HE encompasses not only human-animal interactions, but also the humanities, environmental and social justice, and even planetary stewardship and sustainability (Jalongo, 2014). HE's revolution in practice is rooted in social change, and its definition encompasses social and environmental dimensions. The fundamental definition of HE includes behaviourally prosocial characteristics. In modern development, HE introduces new humane social dynamics by emphasizing behavioural perspectives and eliminating oppressive and utilitarian perspectives on the relationship between humans, animals, and the environment (Erin & Christine, 2022). Based on this definition, the purpose of HE is to promote pro-social interaction by cultivating altruistic values and creating an environment conducive to fostering social cohesion. Flynn (1999) reported that using HE to prevent children from intentionally harming animals can effectively reduce adult violence, particularly against women and children. Therefore, HE is a reflection of social goals, which can internalize human worldview through educational means and promote social justice and cohesion by fostering intimate bonds between individuals and society. In addition, the new definition of HE broadens the ecological environment's perspective, and the emphasis on environmental issues has become a key

reform area in HE. Humanitarians formerly prioritized human interests and concentrated on how the natural environment serves and exists for humans (Besthorn, 2013). However, eco-environmental justice alters the definition of HE: humans serve the natural world (Bretzlaff-Holstein,2018). It acknowledges the unity of humanity and the natural world. The moral responsibility of humans is no longer restricted to their own self-interest, but also extends to all non-human beings and entities (Besthorn, 2013). HE constructs a conceptual framework of the human and ecological environment to achieve the sustainable development of the global ecosystem within the context of the social environment of numerous ecological crises in the 21st century.

3.3. The Development of Humane Education (HE) in the United States

In the early days of organized animal protection in the USA, humane educators attempted to instil a kindness ethic in animals through formal or informal education (Unti & DeRosa, 2003). Early humane educators focused primarily on educating children. They contend that moral education may foster and enforce sociocultural utility in a religious society, thereby contributing to the formation of good citizens (Unti, 2002). Not until the second half of the 19th century did the United States initiate the humane movement and systematic efforts to teach the principles of animal compassion (Faver,2010). Typical organizations include the Massachusetts State Society for the Prevention of Cruelty to Animals (MSPCA) and the Children's Animal Protection Club known as the "Band of Mercy" the American Society for the Prevention of Cruelty to Animals (ASPCA), founded in 1866, and the American Humane Educational Society (AHES), founded in 1877. These organizations have advocated for the systematization of HE with the goal of protecting children and animals (Faver, 2010). Humane educators believe that the incorporation of HE into public schools should be mandated in light of the evolution of society and the

progression of time (Unti & DeRosa, 2003). Angell (1884) believed that HE served as a forum for socialization that was increasingly secular and able to address social unrest and revolutionary politics. The passage of mandatory humanitarian legislation in Illinois, USA in 1909 marked the movement's most significant milestone (Unti & DeRosa, 2003). Despite the fact that humane values were partially incorporated into the formal education system (Sheldon, 1869). This movement for mandatory HE declined due to the dual effects of war problems and a lack of institutionalized management. At the midpoint of the 1950s, the proliferation of an animal-friendly ethic in children's literature (Oswald, 1994) and other cultural media (Cartmill, 1993) sparked a revival of the HE movement. Midway through the 1960s, the audience for HE grew from elementary to higher education. The founding of the National Association for Humane and Environmental Education (NAHEE) in America in 1973 marked a turning point in the evolution of humanitarian education. HE is a value system that incorporates compassion for all life and respect for the earth into moral standards (Selby, 1995).

The humane education system is gradually moving in a systematic direction in the 21st century. HE is currently regarded as an example of character education (Faver,2010). The Humane Education Program (HEP) integrates curriculum related to national education standards into instructional activities that cultivate empathy in students while enhancing fundamental academic skills and promoting character development (Faver, 2010). Current research suggests that the primary objective of HE is to help prevent or interrupt developmental patterns of aggression against people in children and youth by fostering empathy and prosocial behaviour, thereby reducing violent crime in society and permeating HE into the broader fields of the humanities, environment, and social justice (Komorosky& O'Neal,2015). Moreover, contemporary humane educators are no longer restricted to merely promoting humanitarian activities through theoretical or graphic media; they are utilizing animal-assisted therapy and activities (AAT/AAA) (Arkow, 2010) to

develop seminars that focus on animal and environmental issues. Forms such as "curriculum blending" (Faver, 2010) and even keeping pets in teaching settings (Daly & Suggs, 2010) foster human compassion and kindness by fostering human-animal bonds. In fact, many American schools are required by law to teach HE courses (Thomas & Bierne, 2006), which may indicate a school's social commitment to fostering students' empathy and moral development. However, modern Western industrialized societies are influenced by the theory of human capital, and social customs use monetary measures to evaluate educational outcomes. According to some scholars, this is not conducive to the development of empathy in children (Thomas & Bierne, 2006). Moreover, according to Unti (2003), inadequate budgets for animal welfare and HE contributes directly to the lack of vitality in HE. Although humane education of youth is viewed as a crucial task in the long term, it is frequently viewed as a drain on resources in the short term, which contradicts the neoliberal values of educational outcomes and effectiveness and hinders the development of HE to some extent (Unti & DeRosa, 2003).

The aforementioned development experience demonstrates the enormous potential of HE to advance social and cultural progress. To promote the revival of HE, researchers in the USA now primarily focus on the following four dimensions. First, promote school-centred humanitarian programming and the recognition of HE as a legitimate field of study. On the one hand, the fundamental values of humane education programs are aligned with national curriculum standards (Faver, 2010). On the other hand, humane educators place a strong emphasis on teacher and school requirements. This means that alongside providing teachers with professional training, they also assist teachers in developing "curriculum mixes" that convey humanitarian values (Unti & DeRosa, 2003). Second, utilize network technology resources effectively, such as creating chat rooms and video conferencing (Unti & DeRosa, 2003), and offering virtual study excursions (Finch, 2001). Third, enhance the criteria for evaluating HE. The new era's measurement standards

for HE is related to the prevailing development trend. In order to maintain the connection between the assessment criteria of HE in the new era and the development trend of the times, researchers take into consideration factors like the economy, race, and cultural diversity (Ascione, 1997). Fourth, enrich the connotation of HE and broaden the perspective of the environmental environment. HE is consistent with character education, which can help students grasp the abstract concepts of respect, responsibility, care, and fairness (DeRosa, 2001). Moreover, the mission of reviving HE incorporates moral education. Humane educators strengthen students' concern for the ecological environment and construct the interconnectedness of all humans, non-human, and ecological systems in the process of educational practice in order to achieve social, economic, environmental, and ecological justice (Bretzlaff-Holstein,2018).

3.4. Humane Primary Education in China

Traditional Chinese culture has a significant impact on educational beliefs and practices. As the centre of Chinese traditional culture, Confucianism influences both the traditional and modern educational processes of China. The goal of traditional Chinese education is to cultivate "virtuous sages" (Gu, 2006). Thus, Confucianism, which was developed to establish "moral values," is the source of traditional Chinese humanitarian thought (Tho, 2016). Children's education or primary education was also known as *mengxue* in pre-modern China. *Meng* means ignorant and illiterate in Chinese, and *xue* means education, which represents enlightening and nourishing youth and guiding them back to the correct path in life (Bai,2010). *The Book of Changes* states, "The sage strives to strengthen his deeds and nourish his virtues" (SSJZS, I, p.20), demonstrating that the concept of basic education in ancient China was not limited to the acquisition of fundamental skills and knowledge. In contrast, it is fundamentally a form of religious and moral education that aims

to form a person's good character (Bai, 2010).

In modern times, the development of HE in China has been severely hampered. Since the establishment of the People's Republic of China in 1949, under the influence of socialism, Chairman Mao has authorized the implementation of socialist curricula from elementary school to university with the expectation of producing high-level and comparable learning outcomes (Hu & Szente, 2009). At this time, the education system criticized individualism and ignored the emotional factors and individual differences of students in the curriculum and teaching activities. In addition, since 1978, when China implemented its economic reform and opening-up policy, the human capital theory (HCT) and the instrumentalist view of economic development education have permeated China's modern education system (Gu,2006). Human Capital Theory (HCT), which asserts that education is essentially an investment in the context of the concept of "knowledge economy" (Gillies, 2015), influenced the educational goals of neoliberalism, which was popular in the 1970s. Education can not only satisfy individual economic interests, but also cultivate a well-educated and well-trained labour force in order to increase social productivity, thereby reflecting national economic benefits. Under neoliberal policy guidelines, education is viewed as an investment to cultivate the human resources necessary for economic and social development (Olaniyan & Okemakinde, 2008, p. 157). Despite the fact that the theory supports the core values met the needs of China's economic growth and modernization and contributed significantly to the development of China's social economy during the 1970s and 1980s. However, this close relationship between education and economic returns affects the appreciation for the essence of education of Chinese people as well. As the central model of the Chinese capital concept, "School Education-Modernity-Economic Growth" is widely accepted at the national and individual levels (Bai,2010). The relationship between HCT and individual education investment is transformed into a greater capital investment relationship. The desire for income leads to the diffusion of utilitarian

educational values from higher education to basic education (Bai, 2010). According to Dore (1976), the HCT-guided education system overemphasizes academic credentials and employment accomplishments. This is not only the inability to make education a "joyful learning process" but also a "decline in moral values" as a result of the neglect of humane education（Kai,2009）.

In addition, there are significant regional differences in the development of HE, which focuses primarily on North American or European child populations (Samuels,2018), and few studies have examined the effectiveness of humanitarian programs in Central America or Africa (Betancourt et al., 2010). However, primary school-based HE research in China is scarce. Samuels (2018) used a controlled experiment to examine the impact of the Care for Life (CFL) program on first and second-graders in eastern China. In Chengdu, Southwest China, researchers designed a five-day animal care summer camp for children aged 8 to 12 to help them develop humane attitudes toward animals and the natural environment (Bexell et al.,2013). Ngai et al. (2021) evaluated the efficacy of a school-based humane education program by administering animal-assisted social-emotional learning (SEL) and HE to 110 third-grade students in two elementary schools in Hong Kong, China. Samuels (2020) investigated the effect of humane education programs on a cohort of first-year students in four eastern Chinese cities in addressing environmental issues. Notably, the four studies on HE in Chinese primary schools have all yielded positive results. Facts have demonstrated that the implementation of humane primary education in China can cultivate children's kindness and empathy for animals, humans, and even the environment, enhance the interaction between humans, animals, and the environment, and enrich the meaning of the Chinese primary education system.

These studies have demonstrated the development potential of HE in China's primary education. Although sociocultural differences between Western and East Asian cultures may cause children to respond differently to prosocial

expressions and HE interventions (Samuels, 2018), this does not rule out the possibility of a similar response. Collective or communalism in China has a significant impact on the cultural characteristics of education and establishes the link between family and community spirit. According to King et al. (2005), a collectivist culture that promotes ties to traditional families and social institutions can provide a source of applicability growth for children and predict their prosocial behaviour (p.323). This characteristic facilitates the development of humane primary education in China. Moreover, the globalization of information technology can facilitate the propagation of humanistic education trends (Tolstova & Levasheva, 2019). In the future, China's modern education system will be able to integrate electronic information technology and the concept of HE in order to promote the development of digital education and HE simultaneously.

3.5. Conclusion

The definition of HE has evolved from the initial depiction of qualities such as "kindness, civilization, and benevolence" (Samuel, 1755), to mutual respect between humans and animals (Ascione, 1997a), to a broader range of humanities and environmental and social justice frameworks, as well as planetary stewardship and sustainability (Jalongo, 2014). In the evolution of HE in the United States, there have been stages of germination, development, decline, and revival. As for humane primary education in China, the humanistic concept of ancient Confucianism contributed to its growth, while the modern education system under the influence of neoliberalism hindered its progress.

4. The Reasons for Humane Education (HE)

4.1. Overview

The purpose of this chapter is to identify and investigate the most pressing issues of today, including animal cruelty and interpersonal violence resulting from a lack of empathy, inadequate environmental education, and social injustice. In the context of HE, these three major challenges correspond to animal protection, environmental ethics, and human rights issues, respectively. This chapter demonstrates the urgency of promoting HE by identifying the three most pressing issues confronting the world and China as three reasons for HE.

4.2. Animal Cruelty and Interpersonal Violence Due to Lack of Empathy

Betzler (2019) defines empathy as a process or activity that resonates with a person whose primary focus is on experience as an individualistic, unidirectional, and static phenomenon. Bailey (2020) argues that empathy as a cognitive value is attributed as a form of caring, rather than just to promote caring behaviour. There are two types of empathy: emotional empathy and cognitive empathy (Persson & Kajonius,2016). Cognitive empathy is restricted to appreciating the perspective of others. The meaning of emotional empathy is deeply rooted in "sharing the emotions and feelings of others" (Hoffman, 2000). Empathy is frequently associated with "values" and "moral significance." First, values guide individual and social decision-making and can be roughly categorized as individualistic (hedonism) or collectivistic (universalism) (Myyry et al., 2010). According to Persson and Kajonius's (2016) statistics, the same positive correlation exists between empathy and the collective values of kindness beyond the self, and a negative correlation exists between empathy and the values of self-improvement. In the current social

context of advancing economic technology, the value of self-improvement is increasing, while empathy is decreasing proportionally. Moreover, there is a strong connection between empathy and moral significance. The concept of empathy is referenced in Bloom's (2016) critique, which argues that empathy is arbitrary and limited. Nonetheless, the relational value provided by empathy can enhance not only human recognition, self-esteem, and self-confidence, but also trust, attachment, and affection for others (Betzler,2019). According to Betzler (2019), such empathy, which provides emotional value to others, is the foundation of morality.

Nonetheless, in the context of modern Western industrialized societies, the lack of empathy for children has become a significant obstacle to the development of HE (Thompson & Gullone, 2003). Children's level of empathy affects the likelihood that they would engage in prosocial behaviour (Komorosky& O'Neal,2015). Eisenberg (2006) defines "prosocial behaviour" as voluntary actions intended to benefit others, such as helping, cooperating, donating, and sharing (p.330). In fact, a lack of empathy during childhood and adolescence can lead to antisocial behaviour or conduct disorder (Faver, 2010), which is exemplified by animal cruelty. As one of the diagnostic criteria for a conduct disorder (American Psychiatric Association, 1994), animal cruelty is defined as "socially unacceptable behaviour that intentionally causes unnecessary pain, suffering, or death to an animal" (Ascione, 1993, p.228). The research of Plant et al. (2019) suggests an association between low empathy and animal cruelty. Child protection workers (CPW) in Ontario, Canada, have directly observed children and caregivers causing physical harm to animals (Girardi & Pozzulo, 2012). A survey in Istanbul, Turkey found that children without pets exhibited more severe animal cruelty (Akdemir&Gölge, 2020). In the United States, Hartman et al. (2019) studied the relationship between empathy and animal cruelty and discovered that 16.2% of participants had harmed an animal at least once.

In addition, scholars believe that cruelty to animals tends to make humans cruel and ruthless, thereby increasing the likelihood of similar behaviour toward humans (Arluke &Madfis,2013; Flynn,1999). Increasingly The relationship between animal cruelty and interpersonal violence, including domestic and community violence, is increasingly supported by research (Rojas et al., 2022). Child abuse has become a major issue in American families, schools, and society (Jalongo, 2014). The National Center for Education Statistics reported in 2009 that in 20.5% of elementary schools, bullying occurred daily or at least weekly. However, violence is not restricted to the United States. As a response to the widely publicized incidents of school violence, educators around the world are searching for effective methods to alter students' aggressive and antisocial behaviour (Kochenderfer-Ladd & Troop-Gordon, 2010).

As a result of the complexity of how behaviour develops, it would be premature to identify empathy as a central factor in multiple behaviours, such as animal cruelty and interpersonal violence. For instance, it appears that abusive behaviour is related to the domestic environment. McPhedran (2009) noted that children who experience domestic violence are more likely to be cruel to animals than those who do not. However, the previous studies revealed an inverse relationship between empathy and aggression, indicating a strong connection between empathy, animal cruelty, and interpersonal violence.

In China, although the majority of people have changed their perspectives, they are now willing to view animals from a humanitarian and moral perspective, and their attitudes toward animals (primarily companion animals) have shifted (Rojas et al., 2022). However, the socioeconomic and political setting makes it difficult to promote strict animal welfare protection nationwide. The Chinese value hierarchy implies that non-human animals can only serve human needs and cannot receive equal amounts of affection (Thomas & Joaquin, 2020). According to Li (2016), China was the only

significant industrialized nation without a significant anti-animal cruelty law as of 2016. In addition, incidents of animal cruelty comparable to the three vicious arson attacks on stray kennels in Shandong Province, China in 2019 continue to occur frequently throughout the nation (Thomas & Joaquin, 2020). As noted by Li (2016), animal welfare does not appear to be the most pressing issue for the Chinese government, possibly because cruelty to animals does not pose a permanent threat to it.

4.3. Lack of Environmental Education

In a society dominated by the economy, the relationship between individuals and the environment is limited to the acquisition of benefits. Their environmental concern is limited to human rights to a clean and secure environment (Besthorn, 2013; Miller et al., 2012). Although the natural world has value, when its interests conflict with those of humans, the natural world's interests frequently give way (Besthorn, 2013). Nevertheless, human activities have a substantial impact on the environment. Under the influence of such natural environment values, environmental issues such as climate change, biodiversity loss, various forms of pollution, resource depletion, and land degradation are becoming increasingly severe.

In response to the increasing severity of environmental issues, the concept of environmental education is gaining widespread acceptance. UNESCO's Framework for the United Nations DESD International Program of Implementation (2006) defines environmental education as a discipline that focuses on the relationship between humans and the natural environment, as well as methods for the protection and protection of the natural environment and the proper management of natural environmental resources (p. 17). Environmental education employs the "plurality of life" framework as its educational guideline, recognizing the interdependence of all life forms and emphasizing the intrinsic value of all life forms, regardless of their utilitarian

value to humans (Bretzlaff-Holstein,2018). It also proposes a new narrative of peaceful coexistence to replace the current scientific paradigm of human dominance over nature (Pattnaik, 2022). In addition, the environmental theory is derived from Education for Sustainable Development (ESD), which promotes the modernization process for sustainable development by situating environmental issues in broader global economic, social, and cultural contexts (B.Stants, 2014).

However, the promotion of environmental education faces numerous challenges. The first conflict is between globalization, neoliberalism, and environmental education. According to Jickling and Wals (2008), the purpose of education is to enable individuals to enter the labour market and satisfy the needs of corporations in order to sustain the global marketplace. The drive to consume is greater than the drive to maintain for the 10% of the world's population that uses more than 90% of its resources (Brown, 2005). Under the dominance of globalization and neoliberalism, education has become the resource" (Jickling & Wals, 2008), which contradicts the notion that education promotes sustainable development and impedes the growth of environmental education. Second, there is a lack of awareness of man's relationship with nature. In the United States, children aged 3 to 12 spend only 1% of their time outdoors, but 27% of their time watching television (White & Stoecklin, 2008). Children's disconnection from the natural world is a growing trend worldwide, not just in the United States (Bires & Schultz, 2013). This trend increases the probability that children may develop nature deficit disorder, which is not a medical condition but rather a description of the alienation of humans from nature (Louv, 2005). Children with nature deficiency disorders are incapable of caring about environmental issues, let alone preparing the next generation to face climate change and other environmental challenges (Bires & Schultz, 2013). Finally, curriculum limitations. Along with the issues of an economically dominant social ideology and a lack of environmental awareness, there is also significant curriculum

and teaching inconsistencies between environmental education and school education in the course of educational practice (Stevenson, 2007). The curriculum for environmental education should be interdisciplinary and emphasize problem-solving. It calls for the integration of concepts such as Humanitarian Education and Education for Sustainable Development, transforming the curriculum into an interdisciplinary one (B. Stants, 2014). This interdisciplinary approach develops students' ability to think from multiple perspectives and solve real-world issues. However, the school curriculum is predominantly disciplinary and focuses on abstract theoretical issues (Stevenson, 2007). Numerous educational systems are constrained by curricula that prioritize fundamental subjects, such as mathematics and languages, over environmental education. This could result in students lacking the ability to integrate and apply environmental concepts to solve real-world problems. Moreover, standard testing and assessment frameworks frequently fail to measure environmental knowledge and skills adequately, further marginalizing environmental education (Tal, 2005).

Numerous studies in China demonstrate China's efforts to develop fundamental environmental education. For instance, in the Chinese region of Chengdu, children were taught about the environment by utilising the city's diverse living museums and verdant spaces (Laffitte et al., 2022). In Shanghai, China, 69 students in a primary school participated in a seven-week water-saving education programme (WCEP) to address the challenges of water scarcity and pollution in mainland China (Zhan et al., 2019). Educators in Yunnan Province, China, advocated for the incorporation of local environmental education into fundamental subjects such as language, art, mathematics, social studies, and science in order to promote ecologically sustainable development in the region (Efird, 2012).

However, besides to the above-mentioned global challenges in environmental education, there are still numerous issues in China's practice of elementary environmental education. The initial problem is a lack of social acceptance.

The Chinese Ministry of Education mandated the incorporation of environmental education in all primary and secondary school curricula in 2003, but this directive has not been largely carried out. According to Efird (2012), many student teachers regard environmental education as "another extra subject" that increases the burden of knowledge acquisition on students. The second issue is that the course material is not grounded in reality. In China, environmental education has traditionally overemphasized the transmission of environmental knowledge while disregarding the relevance of environmental values and skills (Efird, 2012). This means that a significant portion of the course content does not take regional issues into consideration, resulting in environmental education that does not correspond to local realities. Lastly, environmental education in China lacks systematic management. According to Ma Guixin (2010), a prominent Chinese environmental educator, environmental education in China has not received the attention it deserves, from the professional training of environmental instructors to curriculum evaluation.

4.4. Issues of Social Injustice

The definition of social justice has been the subject of debate. Novak (2000) argues that social justice does not have a fundamental meaning, and that this ideology is ambiguous. In a survey on the definition of social justice, scholars discovered that the majority of respondents agreed that "fairness is a necessary condition for a just society" (Hytten & C. Bettez, 2011). This indicates that society broadly accepts fairness as the first fundamental connotation of social justice issues. According to (Novak, 2000), the second definition of social justice is "social," which refers to the ability to collaborate with others to complete just tasks. Thirdly, social justice is concerned with the interests of the city as a whole, not just those of a single subject (Novak, 2000). The correct comprehension of social justice ideology can only be

attained when the three conditions of "fairness," "social," and "involving the overall interests" are met simultaneously. In a free society, however, social benefits are not distributed in accordance with accepted principles of justice (Novak, 2000). Under the dual effects of the ambiguity of the definition of social justice and the uncontrollability of policy practices, contemporary society is confronted with a variety of social injustices, including systemic racial discrimination, income inequality, gender inequality, environmental injustice, disability discrimination, and educational disparities, among others. The most prominent are economic inequality, racial and ethnic discrimination, and gender inequality.

First, economic inequality is a significant factor contributing to social injustice. Under the guidance of neoliberal ideology, market economic competition for production outcomes and commodity value results in economic inequality (Richmond, 2014). The gap between the rich and the poor is widening in many societies, and marginalised communities have limited access to resources, opportunities, and fundamental services. Since the mid-1970s, rising economic inequality in the United States has not only caused economic dysfunction, leading to a debilitating economic crisis, but it has also spread to the political realm, undermining democracy (Goldberg, 2012). Long has it been believed that a variety of socioeconomic inequalities undermine human rights, democracy, and the rule of law, and impede the process of peacebuilding in nations around the globe (Richmond, 2014). Economic inequality perpetuates poverty cycles, restricts social mobility, and aggravates other forms of injustice.

Secondly, racial and ethnic prejudice. Although experts have criticized the unjust treatment of individuals based on race or ethnicity in lawmaking, education reform, and policy practice (Gillborn, 2006), such treatment continues to be prevalent. However, racial and ethnic discrimination persists in the 21st century, resulting in social injustice and inequality. Racism includes personal forms, institutional racism, cultural racism, and

environmental racism (Gillborn, 2006). In addition, while some discriminatory practices have developed over time, these ingrained racisms have evolved into a more pervasive systemic racism. Systemic racism is the reverberating effects of discriminatory legislation on social, political, and economic systems (Saini & Vance, 2020). In the United States, many examples of systemic racism that is perpetuated through society are evident: large disparities in the amount of economic credit provided to blacks and whites (Cohen-Cole, 2011); oppression limits access to adequate health care (Feagin & Bennefield, 2014); and the proportion of black Americans incarcerated for misdemeanors is significantly higher than that of whites (Taylor, 2013). Systemic racism transcends individual behaviour, and these culturally rooted biases and discrimination affect all aspects of life, including education, employment, criminal justice, and healthcare.

Third, despite the undeniable convergence of the economic status of men and women during the second half of the 20th century, gender-based discrimination and inequality continue to exist globally (Ponthieux & Meurs, 2015). The primary manifestations of gender inequality are unequal opportunities and gender-based violence. On the one hand, women and gender minorities frequently encounter barriers to education, healthcare, and employment. In many developing countries around the world, women's primary education (literacy level) and secondary education lag significantly behind that of men (Nussbaum, 2003). Regarding social welfare, Akter (2020) found that in the United States, the new leading cause of death is pneumonia. During this time period, the dearth of access to medical care for women was significantly correlated with mortality. In terms of employment opportunities, Ponthieux and Meurs (2015) examined gender inequality in employment and income in Western industrialised nations from a broader perspective. On the other hand, women and transgender individuals are the primary targets of gender-based violence. Studies have shown that in addition to physical sexual harassment, rape, and domestic violence (Anthias, 2013), women face

psychological or emotional violence (Dunne et al., 2006). Gender-based violence against women is commonly attributed to patriarchy, women's lack of empowerment, social prejudice, and stereotypes (Anthias, 2013). In addition to women, transgender people face widespread discrimination in social organisations due to a lack of diverse values. According to Lombardi et al. (2002), enduring financial discrimination due to transgender status has the strongest correlation with transgender-related violence.

It is worth noting that, influenced by the specific political culture and geographical environment, the inequality in China is mainly reflected in three aspects: rural areas and urban areas, and there are obvious gaps between urban and rural areas in education, medical care, infrastructure, and employment (Park, 2008, p.41); ethnic minorities and Han ethnic groups have their own cultures and religions, and their human rights and equal access to resources are often challenged (Campos et al., 2016); gender inequality, traditional gender roles and prejudice continues to shape social expectations, leading to unequal treatment of women in education, work, and life (Berna, 2013).

4.5. Conclusion

In the 21st century, animal cruelty and interpersonal violence, a lack of environmental education, and societal prejudice continue to hinder the harmonious development of individuals and society. HE is situated at the junction of a number of academic disciplines, including human-animal attachment, environmental education, animal rights, ecopsychology, and ecofeminism (Pattniik, 2022). Consequently, as a comprehensive field of study, HE can resolve these challenges more comprehensively and promote sustainable development in contemporary society.

5. The Improvements for Humane Primary Education in China

5.1. Overview

This chapter provides references for the improvement of humane primary education in China through the combination of theories and practices. The theoretical section provides solutions by elaborating Nussbaum's theory of the capabilities approaches, loving-kindness theory, and Pestalozzi's theory of loving education, which overlap with humanitarianism. In the practical section, it is demonstrated that human-animal interaction (HAI) can effectively promote the development of humane education (HE), as well as identify connections between animal-oriented empathy and human-oriented empathy.

5.2. Combining Three Theories to Respond to Main Challenges

First, the theory of HE intersects with the quality of life assessment and the practice of justice theory in Nussbaum's theory of the capabilities approaches. Initially, Nussbaum's (2011) evaluation of the quality of life concentrates on the purpose of what people can do and be effective. It prioritizes and chooses the freedom to be a complete individual over achievement. However, in the modern social consciousness, a country's gross national product (GNP) per capita has been used for decades as a proxy for its standard of living. However, GNP growth does not correlate strongly with improvements in many areas that influence the lives of a country's inhabitants (Nussman & Sen, 1993). In China, the Human Capital Theory-dominated modern education model is widely acknowledged. People view education as a commodity, focusing on educational achievements and the moral development of students (Bai, 2010). This utilitarian value extends from higher education all the way down to primary education, resulting in a dearth of comprehensive, high-quality

education for young children (Bai, 2010). Nussbaum (2011) responds critically to the social status quo that only measures economic outcomes without regard to the quality of life of individuals. In her capability's perspective, having access to material or financial resources serves as a means to well-being rather than as an end in itself. Only objectives have intrinsic value, while means to contribute to attaining goals of well-being, justice, and growth (Robeyns, 2005). Furthermore, the theory of social justice emphasizes the significance of dignity and discusses issues pertaining to women and equality. Nussbaum (1999) demonstrated that women are treated unequally in the domains of physical safety, employment, education, and politics around the globe. And advocated the principle of nondiscrimination in ten fundamental human capabilities (Nussbaum, 2011), which can more comprehensively address the social injustice discussed in the previous chapter. In addition, Nussbaum (2011) focuses on the interactions between humans and other species. This theoretical perspective on ecological justice corresponds to the significant obstacle posed by the dearth of environmental education.

Second, the loving-kindness theory argues that humans should consider love and peace as the value orientation at the national community level and the earth level, in order to promote the sustainability of human life and the flourishing of the earth (Uflewska & Tordzo, 2022). This value of loving-kindness and harmonious coexistence has something in common with "love, kindness, kindness, and compassion" as described in the fundamental definition of HE. As with HE, the theory of lovingkindness not only respects cultural diversity with a sense of equality and peace in the community dimension (Tordzro, 2018), but it also incorporates the love and peace perspective of the universe, expanding to a cosmic dimension in which the Earth coexists in harmony with other planets (Mazzucato, 2018). This theory addresses the challenges of violence, environmental deprivation, and social injustice resulting from a lack of empathy.

Thirdly, Pestalozzi's caring education theory primarily criticizes the neoliberal ideology-dominated current education system. The educational system of today is influenced by the neoliberal agenda, which promotes the fundamental characteristics of competitiveness, conformity, conservatism, custom, and business, resulting in students frequently deficient in social and emotional learning (Sellars & Imig, 2021). The modern education system's problems in China originate from the country's broader sociopolitical system (Bai, 2010). The theory of human capital appears to have been applied to all current reforms. Bai (2010) noted that relying solely on market rules to regulate and manage education or exploiting human capital theory in an overly simplistic manner, is a practice that has the potential to destroy education. The talent selection system generates intense competitive pressure, which results in a severe lack of quality education. Therefore, Pestalozzi's educational philosophy reshaped the moral purpose of democratic education and addressed the social challenge of a lack of empathy. On the other hand, Pestalozzi's compassionate education emphasizes the cultivation of individuals in a supportive and inclusive environment (Sellars and Imig, 2021), promoting diversity and equality and responding to the challenges of social injustice.

Combining Nussbaum's theory of competence, loving-kindness, Pestalozzi's love education, and HE can provide a comprehensive framework for addressing violence issues resulting from a lack of empathy, inadequate environmental education, and social inequity. Listed below are some applications of these theories:

First, changing social ideology can be the primary solution. In a society that places a premium on economic value, education serves predominantly to improve individual status and economic well-being (Stevenson, 2007). However, these contradict the core functions of humane and environmental education, which promote love and altruism and emphasize sustainable social values (Ascione, 1997a; Stevenson, 2007). The contribution could be

made to the realization of a just and sustainable society by viewing the total realization of individual functions in Nussbaum's ability theory as the fundamental guarantee of human rights and the love and peace values in the love theory and Pestalozzi's love education as the social emotional orientation. In addition, integrating Nussbaum's ability, loving-kindness, Pestalozzi's love education, and humanitarian education theory into legal policy can promote the transformation of social ideology more effectively in social practice. Nussbaum (2011), for instance, advocated from a moral-legal-political standpoint that governments should incorporate a list of "core human capabilities" into constitutional and international policies (Robeyns, 2005) to address social injustice and establish cross-cultural goals, to promote the diversification of the value system in order to defend the equality and freedom of all humans (Nussbaum, 1999).

Second, establish a comprehensive education system that incorporates both holistic and interdisciplinary education. The competency approach proposed by Nussbaum (2011) suggests that education should go beyond academic knowledge and concentrate on developing a variety of individual competencies. In spite of developing the necessary foundational skills, education should also cultivate competencies like empathy, emotional intelligence, critical thinking, and ethics (Nussbaum,2011). Moreover, interdisciplinary education must be incorporated into the curriculum system. The incorporation of loving-kindness theory into HE curricula can promote love-oriented social-emotional development by teaching empathy and nurturing a sense of responsibility for humans, animals, and the environment (Thompson, 2003). Taking HE and education for sustainable development as an all-encompassing concept, emphasizing the relevance of interdisciplinary courses, and cultivating students' ability to think critically and solve problems from multiple perspectives (B. Stants, 2014). To raise ethical awareness of systemic injustice and human rights issues, integrate social justice into the curriculum and inspire students to engage in critical thinking and conversation

about social justice themes (Snyder et al., 2008).

Lastly, establish partnerships. Responding to these intricate social challenges necessitates the collaboration of numerous stakeholders. Schools, community organizations, and government agencies can establish partnerships to develop more comprehensive, effective, and sustainable programmes to combat violence, environmental lack, and social injustice by combining their respective expertise and knowledge.

5.3. How Human-Animal Interaction (HAI) Promotes the Development of Humane Education (HE)

The phenomenon of "human-animal bonding" (HAB) or "human-animal interaction" (HAI) was pervasive throughout the 1970s and 1980s (Jalongo, 2014). The American Veterinary Medical Association characterizes the relationship between humans and nonhuman animals as "mutually beneficial and dynamic, with behavioural influences crucial to the health and well-being of both" (Wollrab, 1998, p. 1675). HAI promotes the growth of HE by enhancing empathy, prosocial behaviour, and a sense of responsibility. Firstly, research demonstrates that HAI can influence the expression of empathy throughout the human life span (Daly & Suggs, 2010). On the one hand, indirect interaction with animals can increase levels of empathy. For instance, teachers can use animal-related stories or activities, encourage students to put themselves in the animal's shoes, and pose questions that promote critical thinking to foster empathy (Komorosky& O'Neal,2015). In interviews with 75 instructors from 6 Ontario school boards, 18 reported that using non-living animals in the classroom, such as books, pictures, and stuffed animals, also increased student empathy (Daly & Suggs, 2010). In a class-based experiment in animal-assisted HE in Hong Kong, educators used picture books and canine component reading to develop students' empathy, kindness, and pro-animal attitude (Ngai et al., 2020). On the other hand, direct contact with animals

can promote the development of empathy. Keeping canines in elementary school classrooms, for instance, can increase students' empathy. According to Daly and Suggs (2010), live animals have been identified as effective tools in scientific and HE curricula. According to Vidović et al. (1999), family atmosphere and pet ownership can both improve children's empathy and social orientation. Daly and Morton (2015) discovered that children who owned and were attached to companion animals reported greater empathy than those who did not own pets.

Additionally, HAI can facilitate the growth of prosocial behaviour in children. According to survey data compiled by Eisenberg (2006), empathy has been shown to predict prosocial behaviour. Therefore, it is plausible that an association exists between HAI and prosocial behaviour. According to Martin and Farnum (2002), adequately guided interactions with animals can increase the prevalence of prosocial behaviour in children and adolescents. The animal-assisted humane education programme implemented by Samuel et al. (2016) in the metropolitan areas of New York and Chicago was effective in enhancing elementary school students' understanding of animal welfare and prosociality. In addition, the connection between HAI and prosocial behaviour is primarily reflected in the prevention of violence in the field of educational practice. According to research, animal assistance programmes can be very effective in reducing children's aggression. For instance, using rescued shelter canines to teach anti-violence, empathy, and character education to children (Faver,2010). The programme had positive effects on children's empathy levels and attitudes towards aggression (Sprinkle, 2008). POOCH (1993) was a specialized dog adoption programme for juvenile offenders. Since the program's inception, the recidivism rate has decreased from 63% to 0% (Komorosky& O'Neal,2015).

Lastly, HAI is beneficial in the development of a sense of responsibility in children. According to Jalongo (2013), young children interact with other species due to their strong identification with the animals' vulnerability,

innocence, and dependence on the care of others. These factors can have a significant effect on the development of children's self-awareness, which plays an essential role in communication and self-construction in social emotion and interpersonal relationships. In addition, children who develop positive relationships with companion animals and assume pet-care responsibilities have more opportunities to practice social behaviours, form friendships with other animals, and develop sensitivity to the needs of others (Berkinblit, 2004). In Italy, Mariti et al. (2011) confirmed the positive influence of HAI on children's sense of responsibility through an educational anthropology project titled "Friends of Animals" involving 201 9- to 11-year-old primary school children. The results of a survey revealed that students who participated in the programme had less fear of pets, greater knowledge and education about the animal world, enhanced relationships with their pets, and developed a sense of animal responsibility.

Despite the fact that "animals have a positive impact on the development of children's empathy" has been contested by some academicians. Studies have shown that children with a companion animal or a strong attachment to one do not demonstrate greater empathy (Daly & Morton, 2015). Children's attitudes toward other animals are not inherently improved by having a companion animal (Maria et al., 2011). In addition, companion species and preferences also influence prosocial orientation and empathy (Daly & Morton, 2006; Vidović et al., 1999). However, the aforementioned review of the scientific literature provides evidence that HAI can promote the development of HE in terms of empathy, pro-social behavior, and increased responsibility to a limited extent. Furthermore, children's interactions with animals during practical educational activities are limited by a variety of factors, such as care, sanitation, safety, and health concerns in animal care (Daly & Suggs, 2010). Notably, Spiegel (2000) and Chapman et al. (2000) implemented the "Dog Bite Prevention Program" in the United States and Australia, respectively, to better understand dog behaviour and to teach children about safe and

effective interactions with dogs. These two studies provide experimental support for animal-assisted humane education programs and contribute to the development of HE in a systematic manner.

5.4. Empathy with Animals and with Human

5.4.1. Transference

Despite the profusion of literature on human and animal empathy, the link between animal-oriented and human-oriented empathy remains seldom explored. This progression from animal to human empathy is referred to as "transference", which refers to the claim that positive interactions with animals teach children to respect all living things and foster mutual understanding and respect among individuals (Jalongo, 2013). Ascione (1997) elucidated the fundamental objective of transfer programs in HE: "Teaching children to be attentive to the needs of animals and to treat them with kindness, compassion, and care, which influences how children treat one another" (p. 61). The phenomenon of transference typically emerges between the ages of 2 and 3 years old. They can progressively recognize that others have distinct emotions and perceptions from their own. Children of this age are capable of experiencing compassionate suffering and acting while recognizing that others' needs may differ from their own (Lind, 2000). Initially, this empathy manifests itself through the induction of emotions. According to Paul (2000), those who witnessed an animal's overt emotions were more likely to experience an intense emotional reaction when witnessing another human's emotions. As the degree of emotional transfer increases, children can learn to respect all living things through appropriate pet care, which in turn can foster trust and understanding (Lind, 2000).

In previous studies, there are shreds of evidence of a positive relationship between animal-oriented and human-oriented empathy: Poresky's (1990) study demonstrated that greater affective empathy for animals was

associated with higher levels of human-oriented empathy. The research conducted by Vidovic et al. (1999) demonstrated the positive effect of animal attachment on the development of children's interpersonal relationships. As evidenced by the findings of Ascione's (1992) 40-hour Humane Education Program, children's attitudes toward the care and treatment of animals are significantly correlated with human-oriented empathy. Paul's (2000) research on human-centered and animal-centered empathy revealed a modest but statistically significant correlation between the two categories of empathy. Studies have shown that young people in Hong Kong, China develop a strong connection between animal-oriented and human-oriented empathy (Fung, 2019). It is important to note that these studies not only demonstrated the link between animal- and human-oriented empathy, but also that people have at least equal levels of empathy for both animals and humans (Angantyr et al.,2011).

Despite this, there are still many scholars who query the purpose of transference in HE. Investigations demonstrate that the responses of children to companion animals and other animals are not correlated (Bjerke et al., 1998). In addition, Lind (2000) noted that there is no conclusive evidence that children actually benefit from humane education programs or are able to transmit empathy from companion animals to humans.

However, the preceding points provide evidence for the correlation between animal-centred empathy and human-centred empathy, which in part validates the concept of "transference" in humane education programs. In HE practices, transference planning is closely associated with empathy and prosocial behaviour (Thompson & Gullone, 2003). Consequently, viewing empathy and prosocial behaviour as skills can help establish a link between animal-oriented empathy and human-oriented empathy, thereby expanding the scope of application for HE.

5.4.2. Empathy as a skill

According to Konrath et al. (2011), "empathy appears to enable people to relate to others in a way that promotes cooperation and solidarity rather than conflict and isolation" (p.132) indicating that empathy is a skill that can be learned, thereby promoting the harmonious development of society and enhancing people's social skills. The concept of empathy as a skill is widely recognized by society and defined as "educational activities that tend to increase self-awareness, skill levels, and critical reflection in a safe environment" (Segal & Wagaman,2017). The practice of empathy as a skill in educational activities is typically influenced by parents, institutions, and society. First, parental behaviour can influence the level of empathy in children. Farrant and associates (2012) discovered that cognitive-emotional empathy in pregnant women was positively related to the development of empathy in children. In addition, the use of inductive discipline in parent-child interactions frequently fosters the development of empathy in children (Hoffman, 2000). Second, the implementation of empathy-related courses and intervention programs in schools can influence the degree of empathy among children. Sagkal et al. (2012) peace education initiative for 6-graders demonstrated that empathy levels can be enhanced through extraneous means. Thirdly, social workers can advocate for social justice by cultivating social empathy. According to Segal and Wagaman (2017), interpersonal empathy is a skill that is emphasized in social work education. Social empathy takes into consideration cultural differences and assists individuals in understanding their sense of responsibility in the larger world (Segal, 2011). As a result, social workers must incorporate all aspects of interpersonal and social empathy into a curriculum as a practical framework to promote the growth of social justice.

5.4.3. Prosocial behaviour as a skill

"Empathetic concern and perspective taking were significant predictors of pro-social behaviour" (Litvak-Miller et al., 1997, p.305), indicating that prosocial behaviour can be taught or developed as a skill, similar to empathy. Children's development of prosocial behaviour as a skill is primarily influenced by three factors: level of cognition, level of parenting practice, and self-regulation. First, from a cognitive developmental perspective, the essence of prosocial behaviour (i.e., the maturity to control that behaviour) transforms as children achieve higher levels of moral judgment (Eisenberg et al.,2013). Experiments conducted by Farrant et al. (2011) demonstrated that children with greater prospecting taking (PT) demonstrated more prosocial behaviour. The acquisition of explicit PT skills may facilitate the growth of prosocial behaviour in children. The second finding is that positive parental practices are associated with greater levels of prosocial behaviour in children (Farrant et al.,2011). Finally, William and Berthelsen (2017) concluded that children with greater self-regulation skills may be better able to respond in prosocial ways to others.

5.5. Conclusion

In the first section of this chapter, this study combines the Chinese educational system by explicating three theories corresponding to HE, namely Nussbaum's theory of the capabilities approaches, loving-kindness theory, and Pestalozzi's theory of loving education, in response to the primary challenges identified in the previous section and providing solutions. In the practical component of improvements, this study critically examines how HAI boosts HE in three areas: empathy, prosocial behaviour, and responsibility. Additionally, this chapter explains the concept of transference and describes how considering empathy and prosocial behaviour as skills can effectively establish an association between animal-oriented empathy and human-

oriented empathy.

6. Conclusions

6.1. Contributions

This study examines the definition and development of humane education (HE), the three main social challenges, and the enhancements to HE through an extended literature review. It provides implications for the development of humane primary education in China by integrating pertinent international literature in this field. In the background chapter, this study investigates the mainstream definition and development process of HE in chronological order, and analyses the past, present, and prospective development process of humane primary education in China. The definition of HE has evolved from the original focus on animal welfare to environmental preservation and even social justice. The history of HE has been exemplified by the United States, which has gone through the phases of germination, development, decline, and revival. In China, humane primary education was promoted due to the spread of Confucian culture in ancient times. On the contrary, it has been hindered by the development of neoliberal ideology in the modern era. In the findings chapter, this study addresses three major challenges, including animal cruelty and interpersonal violence, lack of environmental education, and social injustice, which correspond to the connotation of HE in animal conservation, environmental ethics and human rights, respectively. By explicating these three challenges, this study demonstrates the necessity for the development of HE in contemporary society. In the discussion chapter, this research responds to three main challenges by combining three theories and the current situation of Chinese education, and offers solutions including altering social ideology, establishing a comprehensive education system, and forming partnerships. Moreover, this study examines how human-animal interaction (HAI) can enhance HE by fostering empathy, prosocial behaviour,

and responsibility. Additionally, this study also discovers that addressing empathy and prosocial behaviour as skills can assist in developing a relationship between animal-oriented empathy and human-oriented empathy by highlighting the crucial function of transference planning in HE.

6.2. Reflection on practice

The initial motivation for selecting the topic of HE and HAI for this study was an affection for animals and the natural world. I believe that humans are inextricably linked to animals and nature. They can facilitate not only a higher quality of life for humans, but also a spiritual healing of the body and mind. However, due to a value system dominated by the economy in contemporary society, I feel that people are becoming increasingly indifferent and disconnected from animals and nature. In addition, this ideology with economic interests as the main educational objective permeates the entire educational system in my home country, China. This is exactly why the argument for HE is so crucial. With the assistance of my supervisor, I selected qualitative research grounded in interpretivism and constructivism. A literature review was initiated with the subthemes of HE definition, development, challenges, and improvement. I not only mastered this comprehensive academic writing method, which extracts the main content from the search-to-writing process, through the study of the extensive literature review. I also gained a deeper comprehension of the progress of HE, thereby expanding my knowledge base. However, the small-scale study requires significant improvement. For example, future research should consider how to ensure the accuracy of the data and how to make the research results more generalizable.

6.3. Further research

In summary, future research on HE and HAI requires the development of a more inclusive research paradigm. On the basis of improving the accuracy of the data, the scope of application of the research results is expanded. In future research on the definition and development of HE, researchers must broaden their research horizons and critically investigate the in-depth connotation and development process of HE in order to achieve worldwide social, economic, environmental, and ecological justice (Bretzlaff-Holstein,2018). In terms of research on major challenges in the future, researchers should follow the trends of the times and analyze challenges in various dimensions of society with a critical and developmental perspective. To increase the precision and applicability of the research, it is necessary to consider the economic, political, and cultural factors of specific regions when examining future enhancements to the strengthening of HE. Lastly, the restrictions on data acquisition required researchers to reevaluate older data and evidence in subsequent studies.

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