

## National Identity and Shaping Children: Design Toys for Kids in 1930s China

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### Abstract

In the early 20th century, with the toy trade deficit, the idea of the child as the primary focus and the influence of the national product campaign, domestic toy innovation was seen as an important way to counteract imported goods, foster a scientific attitude in children and inspire patriotic consumption. Specifically, toys embody the expectations and imaginations of intellectuals for “new children”, as well as the complex relationship between toys and education, children and consumption, and exemplary citizens and an ideal country. The purpose of this paper is to explore the relationship between “science toys” and “modern toys”, how they are designed to develop children's knowledge and experiences, and what cultural meanings are included in toys in the context of manufacturer's strategies and authoritative interpretations by education. This study argues that modern toys are actually a scientific tool to develop “small citizens”, pointing out that the toy-related consumer culture and strategies not only create an imaginary childhood but also build an ideal citizen image expected by society.

**Keywords:** National Identity; Shaping Children; Toys Design; 1930s; China

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## 1. Background Review

Studies on the history of children in modern China have focused on analytical examinations of children's literature, children's education, and children's relief and welfare, and these results summarise and present the overall changes in the image of children, their perceptions, and their social status. In recent years, a number of studies have attempted to use toys to explore how children lived in early twentieth-century urban China. By collating toy advertisements in the 1930s newspaper *Declaration*, Zhu Houkun found that the vast majority of reports mentioned 'scientific toys' and 'military toys', and that these two types of toys were described as "intellectual enlightenment". The study argues that intellectuals used the "scientific" and "national" aspects of toys to shape children's "nationalism" (Zhu Houkun, 2020) [1]. Zhao Dongxia focuses on the design of children's toys in Shanghai during the Republican period. She notes that the new forms of toy production were based on scientific enlightenment and patriotic education (Zhao Dongxia, 2019) [2]. Liu Xiawei, on the other hand, argues that the exhibition of children's toys in the Year of Children's National Products has the characteristics of shaping children's nationhood and consumption (Liu Xiawei, 2018) [3].

These studies offer new perspectives on the relationship between toys and children, but due to the small number of statements, there is still little scholarly exploration of recent toy design and children's education. In particular, there are very few studies that analyse the relationship between toy design, toy function, toy play and children's education, and the shaping of ideas. This study aims to use the reform of toy design as a clue to show the life of children in the modern city through toys, and to reveal the cultural significance behind the manufacture of toys.

## 2. Introduction

Under the influence of modern early childhood education theories, China developed a new, child-oriented parenting concept in the early 20th century, with a view to "recognising children's status, respecting their personality, catering to their needs, and teaching and rearing them in a way beneficial to their physical and mental development." [4] Holding the opinion that toys should be in line with children's playful nature as well as a tool of education, [5] scholars argued that new scientific toys should be produced to educate and cultivate children. However, the actual status of China's toy market at that time was described as follows: "Poorly shaped clay toy doll and coated with mixed colours, and they are neither good-looking nor sanitary. China-made toys are not suitable for children's physical and mental development, or in line with the spirit of the times, to say nothing of their help to education. At Nevertheless, foreign toys are flooding the market, therefore, vested rights overflow outwardly, people fall into poverty and national treasury is exhausted, and toys peddled by urban hawkers are all imported goods." [6] According to a survey by Li Jinzao, Japan's toy industry was booming, with educators and industrialists jointly initiating and operating a children products research society. Moreover, Japanese toy exports made up more than 10 million yen in 1917. [7] In 1926, Japanese toy sales to China reached 28 million pieces, worth RMB 30 million. [8]

China's toy imports amounted to RMB 152,247 in 1931 and RMB 7,744,154 in 1932. [9] In 1934, imports were even more impressive, totalling RMB 664,000 from January to August, an increase of 25% over the same period last year, with Japanese toys in particular being the most imported. [10] For the political elite and intellectuals, foreign toys, like all other imported goods, were a symbol of imperialism and hegemony in China that reminded China of technological backwardness in industry and the loss of national sovereignty. It is against this historical background that the production of toys has become a matter of concern to the community and is widely discussed.

To satisfy the practical needs of scientific parenting, toy innovation, and economic development, the national authorities encouraged and supported toy product innovation by implementing appropriate policies (e.g., low-interest loans and tax relief) and gave patent rewards for ingeniously designed educational toys. For example, toys produced by Chung Hwa Toy Co., Ltd. were tax-free, and tin toys produced by Shanghai Patriotic Toy Co., Ltd. were only subject to a regular export tax and 2.5% tax surcharge, while exported toys were tax-free.[11] It is thus clear that toys not only constitute a new market for the promotion of children's education and economic profitability but also present a clear macro relationship between toy products, education and the state.

### **3. Designed for Children**

In the 1930s, the “national product campaign” made it imperative to reform toy production. Child litterateur Wei Shouyong published the Introduction to Housekeeping: “Child Toy Issues, arguing that toys serve to develop minds and lead children to regular activities and that the study of child toys is an important topic in the field of education.” [12] Educator Li Jinzao published A Discussion of Child Toys, emphasising that children's toys are a boon to education. In particular, it was stressed that child toys serve to develop children's concentration, imagination and scientific creativity and play an important role in developing their aesthetic sense and improving mental development. Educators also believe that scientific children's education requires scientific child toys, incorporating scientific principles about sound, light, chemistry, and electricity. [13] They argued that children represent the future of China, the impetus of national revival, and China's underdevelopment in science and technology was due to inadequate scientific education for children, particularly in scientific training of chemistry, physics, and mechanical principles. Therefore, child toys should be “Scientific” to lead children to explore scientific principles and acquire scientific knowledge. [14] The reformers proposed the presence of scientific knowledge and the use of mechanical technology as important markers in distinguishing traditional toys from modern ones.

Intellectuals at that time regarded modern toys as tools for citizenship and nation building, assuming that they could promote children's physical, moral, intellectual, and aesthetic development at a very young age. In this context, reformers set a new vision for modern toys, “designed for children”, which would lead children to learn rather than just be entertained. In other words, toys were no longer a plaything in themselves but an educational tool.

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Oxford, The United Kingdom

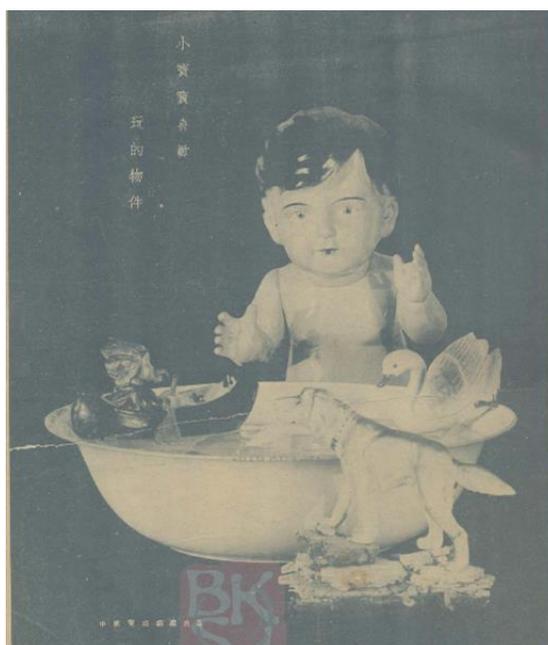
In the face of people's concern about the Chinese national situation and a longing for revival and status, innovation and scientific development were seen as a matter of urgency. Hence, producing "scientific toys" became an issue of common concern among intellectuals and manufacturers. They initiated the reform and practice of modern toy design and proposed new parenting concepts. However, they intentionally or unintentionally implanted technical, commercial, and cultural information into the toys.

### 4. Making modern toys for children

#### 4.1 Celluloid Toys

Ductile new materials (e.g., celluloid) take on a look of modernity. Celluloid dolls were called "educational scientific toys" by educational experts and manufacturers at that time. Such tiny dolls are made of neither porcelain nor clay and are neither bulky nor dirty; they can develop children's empathy and, more importantly, inspire them to think. [15]

Figure 1: Celluloid Doll



Source: (1934. "Children's Favorite Toys," *Art Life*, no.6, p.22.)

At that time, Chung Hwa Celluloid Factory produced celluloid dolls different from traditional clay dolls (figure 1). The production of celluloid toys was completed by eight groups, including the slice making group, glue rolling group, furnacing group, blow printing group, polishing group, assembly group, coloring group, and the workers of these groups strictly followed the operational procedure. [16] The article Celluloid Toys published in the children's book *Pictorial of Common Sense* describes how to design and produce celluloid toys from the perspective of children. The younger sister curiously asks what the little doll is made of, and the older brother details the principle of making celluloid dolls. "Celluloid is a thermoplastic

synthetic resin made from a mixture of camphor and camphor. Celluloid is first dissolved in alcohol to generate a gelatinous substance, and then the gelatinous substance is pressed and cut into thin slices by machine, thus generating celluloid sheets. To make the celluloid board into something, the slices should be soaked in hot water to become soft, be laid on a concave mould, and be covered by a convex mould. After the slices are rolled tightly, they are soaked in a hot water tank to inflate and fit closely into the mould. Subsequently, the mould is immediately placed into a cold water tank to cool and coagulate the colloid, thus generating a celluloid object.” [17] The older brother continues, “The coarse celluloid object needs to be polished by a polishing machine, to make its surface smooth and bright, and then different components are assembled by the assembler and combiner. Finally, the colourist uses the spray coloring method to color the celluloid product. A delicate China-made celluloid toy is finished.” [18] Education experts point out that the novelty and originality of celluloid doll design can inspire children's spirit of exploration, while the materials, technologies, and processes for making celluloid dolls can enhance children's scientific knowledge.

New materials not only gave birth to new product forms but also promoted the change in industrial structure, making “design” a necessary means of toy production. As Adrian Forty said, in the history of different industries, design is bound to become an independent activity when the same craftsman is no longer responsible for all stages from conception to sales of products. [19] Since celluloid toys were made in different ways, such as stamping, pressing, and blowing, it was necessary to make moulds in advance. Therefore, the Chung Hwa Celluloid Factory set up a special moulding room where artists make moulds. [20] Toy doll making describes the detailed production process: “To make a new doll, the following steps are performed: 1) The artist first makes a doll head model out of clay, pours some plaster onto the model to make a shell-like casting mould, and cuts the solidified casting mould into two halves; 1) The artist applies glue and oil to its inside, and then fills it with plaster to form a solid plaster model; 3) Finally, the model is sent from the artist to the factory, thus using it to cast a bronze mould.” [21]

The newly designed child toys were full of modern features such as compact size, sanitation, safety, and artistry, implying a metaphorical relationship between scientific toys and modern toys. Within the discourse of science and technology, the materials and technologies of modern toys contain advanced ideas and scientific connotations, while the technological rationality of toys outweighs their entertainment attributes, making new toys a material symbol of knowledge and education.

#### **4.2 Movable tin Toys**

To earn profits from the toy market, manufacturers adopted an intensive design strategy; they made full use of the same production line to make new toys from the leftover materials of an original product. An example is the China Can Co., Ltd., which mainly manufactured and exported a variety of patterned tin cans (including tea cans, cigarette cans, cosmetics jars, and food cans). The can-making materials (including tin plates) and stone plates were mainly imported from the US, and only a small portion of printing ink was homemade. To improve the

utilisation of equipment, China Can Co., Ltd. founded its Toy Department in 1932 in conjunction with Shanghai Patriotic Toy Co., Ltd., using their existing can-making production lines to produce a series of tin toys. The manufacturer gave importance to the innovative design of toy products. The general manager Xiang Kangyuan recruited professional draftsmen to study and imitate tin toys popular in Germany and Japan in conjunction with the designers of Shanghai Patriotic Toy Co., Ltd. They successfully developed a variety of movable (wind-up), interesting toys, such as monkeys, frogs, and airplanes. These toys were novel in shape and durable and were praised by child educators as movable toys that could improve children's intelligence. As China-made educational toys, they were preferred by parents. [22]

Under the influence of Taylor's scientific management method, China Can Co., Ltd. formed different functional departments (e.g., design and development department, production department, and sales department) and implemented a scientific enterprise management model. In 1935, a special column of the Journal of Public School for Chinese introduced the organisational structure of China Can Co., Ltd. Specifically, the company consisted of 11 departments. Under the Planning Department, there were a few departments related to manufacturing and production, including the Art Department, Printing Department, Inspection Department, Canmaking Department, Magnetic Flower Department, Ironware Department, Toy Department, Storage Department, Purchase Department, and Receiving and Dispatch Department. In addition, the company also formed the Education Department and General Affairs Department, which were responsible for staff training and management. Movable tin toys shared the same production line and the same basic technological process as tin cans, except that each movable tin toy was internally fitted with a clockwork-powered movable device. The Art Department first made a drawing and then sent it to the Stone Painting Department. The drawing was printed on a stone plate according to the proof sample. Then, the stone plate was processed by the falling stone machine, printed and coloured by the Printing Department according to the drawing, sent to the drying room, and oiled by a machine for shiny treatment. [23] Finally, the tin toy was cut, stamped and moulded, and a clockwork gear was installed inside. Hence, a movable toy was made successfully. Clearly, the innovation of movable toys lay not only in materials but also in technology; they needed no batteries, requiring only to be wound up.

Interesting and brightly coloured movable toys seemed to be more in line with the essence of child-oriented games. However, educational experts and manufacturers agreed that interesting toys could stimulate children's desire for exploration and develop scientific ideas and knowledge. After all, the core of movable toy innovation lay in the application of modern mechanical principles, and movable toys were a product of art combined with science. The Toy Department of China Can Co., Ltd. took various measures to generate innovative designs, such as employing professionals to make proof samples and requiring draftsmen to have art literacy, be interested in design and receive more than three years of factory training. [24] In addition, designers were rewarded with a monthly salary ranging from RMB 30 to RMB 100, and novel inventions were given extra rewards. [25]

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Figure 2: Tang Yaliang, Winner of the China Can Co., Ltd. invention award



Source: (1936, "Winner of the China Can Co., Ltd. invention award", *Kang Chuang*, vol. 1, no.16, p.8.)

In 1936, China Can Co., Ltd. publicly rewarded Mr. Tang Yaliang (figure 2) with the Toy Invention Award. Artist Tang Yaliang was first the head of the Art Department of Patriotic Toy Co., Ltd., and then the head of the Toy Department of China Can Co., Ltd., responsible for art drawings. According to the news release titled A Toy Fair Held in the Capital and the Toy Business of Our Company, Tang Yaliang devoted himself to toy research, invented various automatic toys based on mechanical principles and arty ideas, and implemented the China-made spring originated by mechanical engineer Zhu Shuguang, resulting in the success of China-made movable toys. Undoubtedly, movable toys for children aim to satisfy not only the needs of children but also the needs of adults themselves. While adults tend to exaggerate the scientific value of toys for educational or commercial purposes, children are interested in games and enjoyment. Hence, modern toys become educational tools to develop scientific thinking and shape children's mentality and personality.

Scientific toys highlighted "material", "machinery" and "technology", presenting a fetish image of modern toys. This not only actively responded to the child-oriented new parenting concept prevailing in the 20th century but also developed an implicit relationship between child games and toy education. Toys are not only "of children" but also "for children". In the historical context of concern for the nation, toys were seen as an educational tool to develop "small citizens", that is, a generation of "scientific" and "well-educated" "new citizens" through well-designed child toys and establish a modern national state dominated by intellectuals in the future.

### 5. Consumption-oriented Children and Shaping New Citizens

According to educational experts, well-designed and well-chosen toys can stimulate children's bravery and patriotism, enhance their self-defence instincts, and develop good character, thus contributing to national revival. [26] However, people tend to ignore the fact that modern toys, known as "scientific", are actually a product of the alliance between technology and

commerce. While appealing and persuasive rhetoric tempts parents and children to buy these toys, their commercial aspects are overlooked.

### **5.1 Toy Design and Consumption**

In the 1930s, child experts and toy manufacturers jointly developed complex and diverse toys, which offered a wide range of modern parenting knowledge and contained an advertising strategy of “learning through play”. In 1933, child educator Chen Jiyun wrote *Toys and Education*, pertaining to the theory of child development and parenting, which offered an age-specific purchase strategy for child toys. The book first confirmed the close relationship between children's growth cycle and different types of toys and argued that different themed toys should be selected at different age stages. Specifically, children's growth cycle can be divided into five stages: infancy (0 to 3 years), early childhood (3 to 7 years), childhood (7 to 10 years), boyhood (10 to 15 years) and adolescence (15 to 18 years). Children’s physical, intellectual, and mental growth is progressive, so children at different ages should be given different toys. [27] In the critical stage of early childhood, for instance, toys should be safe, nontoxic and sound-producing to stimulate children’s curiosity and imagination and develop their powers of observation and memory. Moreover, toys should also suit children’s personality characteristics. Chen Jiyun classified the educational functions of toys into three types: 1) Fostering children’s sensory functions; 2) Developing their intelligence; and 3) Cultivating their character. Furthermore, studies of children’s growth encourage a diversity of games, making child-centred toy products more diversified and commercialised.

Toy manufacturers absorbed expert theories and views and associated them with various child-oriented theme toys. As the advertisement shows, “The movable toys and educational toys from China Can Co., Ltd. are great companions for children and are purely national products, Available from department stores and toy shops everywhere.” In addition, the Toy Department of China Can Co., Ltd. released the following statement: “Considering the relationship between child ages and intelligence, children’s demand for toys varies at different ages. For the convenience of purchase, toys offered by our company are classified into four groups. The first group of toys is intended for children aged below 4; specifically, such toys are made of wood or tin sheets and are nontoxic, shatter-proof, colourful and sound-producing. The second group of toys is intended for children aged 5 to 7 and is suitable for use as teaching materials in kindergarten. Such toys (e.g., building blocks, dolls and movable animal toys) are primarily designed to develop intelligence through interactions. The third group of toys is intended for children aged 8 to 12 and is suitable for use as prizes or teaching materials in primary schools. Such movable toys (e.g., movable cars, military tools and savings boxes) primarily aim to encourage diligence, thrift, martial spirit and sports and to develop scientific thinking. The fourth group of toys is intended for children aged above 12 and adults. Such toys (e.g., chess, sports, physics, and music) primarily aim at at developing children’s scientific innovation ability.” [28]

Diverse toys tailor-made for children's growth indicate peoples acknowledgement of the difference between childhood and adulthood. Such diverse toys (e.g., building blocks, dolls, trains, and weapons) not only symbolise children's growth and development but also foretell the transformation from children to adults. In this sense, toys not only manifest their practical value but also convey the values and ideals accepted by society. Toys with diverse themes and types have diverse product features. This is in line with both social expectations and the requirement of "learning through play". In response to the social trend of national salvation through industry and education, toys were endowed with more imaginative colours. Under the joint efforts of manufacturers and myth creators, toys not only strengthened the relationship between childhood and commerce but also presented an ideal pursuit of "small citizens" and a "new nation".

## **5.2 Shaping new citizens and children of middle class**

Modern rhetoric depicts toys as gifts, which embodies not only parents' love and emotional connection for their children but also a new parenting concept accepted by middle-class families. Such toys are also an important symbol of class status. In the 1930s, the diverse toys advertised in newspapers and magazines were classified into various types, such as "architecture", "transportation", "military", "English", "math", "gymnastics games" and "handicrafts". Parents were even prompted to present toys to children in Chinese and western festivals. According to the advertisements, "Various toys are elaborately designed to satisfy children's psychological needs in light of accepted educational principles. If children often play with toys, this will help to inspire their mind and build up their bodies. Therefore, it is very advisable to purchase toys for children in both Chinese and western festivals." [29] This shows that parents were induced to buy toys to follow the trends of the times and win a utopian future full of strength, health, scientific knowledge and enlightenment. [30]

Buying toys were endowed with various meanings and values. As shown in the China Can Co., Ltd. toy advertisement, the well-dressed, healthy and happy little boy and girl are surrounded by various toys and gladly accept gifts from Santa Claus (figure 3). The company's advertising claims, "Toys are gifts for children when christmas is approaching." Here, child toys are symbols with rich connotations. They symbolise festival culture and patriotic ideas, present the characteristics of different social strata, and imply the social expectations and imaginations held by children. Likewise, in another advertisement of "five-poison toys in the Dragon Boat Festival" (figure 4), the mother holds a movable gecko toy with her left hand and a healthy and energetic child with her right hand. The picture conveys that a good, intelligent mother should buy movable toys indicative of five poisonous creatures to dispel disasters, prevent diseases and bless healthy growth. The toy advertisement implies standards for good motherhood and induces mothers to spend money to show their love for their children, thus relieving their anxiety from parenting. Not only do these toys connote the consumption essence in the name of children, but they also trigger the desire for possession, making them a powerful symbol of class and national identity. Hence, the purchase of toys is intended to alleviate parental anxiety and give full expression to adults' expectations and values upon children.

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Figure 3: China Can Co., Ltd. Advertisement



Source: (1921, "Gifts for children," *Declarations*, 11 December, p.19.)

Figure 4: Dragon Boat Festival Toy Advertisement



Source: (1921, "Gifts for children," *Declarations*, 11 December, p.19.)

Toys seem to be designed for children, but they obviously blur the boundary between children and adults. The advertisement “Toys Follow the Times”, as shown in figure 5, presents an image of a small citizen dressed in a military uniform. As the advertisement describes, “dolls they have discarded for this generation demands swords, battleships, tanks, airplanes and guns” . Children used toy guns and military equipment to rehearse battles and wars, while adults associated them with patriotism and a heroic complex, making military toys the core metaphor for developing children’s masculinity and patriotism. In 1935, China Can Co., Ltd. referred to transport and military movable toys collectively as “national defence toys” (e.g., cars, airplanes, submarines, battleships and guns). The media and education sectors also called on parents to purchase China-made toys related to national defence and encouraged them to give guidance and instructions while their children played with the toys. The objective was to

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help children gain a general knowledge of national defence from the toys and develop their national spirit and patriotism. [31] The company's toy advertisement further suggested that a new mission of mothers was "purchasing weapons" (i.e., national defence toys), which could arouse children's national consciousness. [32]

Figure 5: Toys Follow the Times



Source: (1933, "Toys of the Times," *Wenghua*, no.37, p.1.)

This reflects how adults instilled patriotism and national defence knowledge into children through toys and developed children's courage and patriotism through war games. The fundamental objective was to help children gain basic knowledge of modern weapons and military equipment, understand the important relationship between science and technology, economic development and national survival and development, and cultivate a patriotic spirit and high sense of social responsibility at an early age. By playing with national defence toys, children were inculcated with the responsibility and obligation to participate in the new social order and build their nation. As a result, the discourse around children has given rise to a number of contradictory "adult perceptions".

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## **6. Conclusion**

The abstract transformation and idealised imagination of toys shows how children can be socially moulded. The design and connotative value of toys shape an “adult in the process of formation”, making children a reflection or recreation of the adult world. Reformers are committed to developing modern toys that aim at educate children and impart knowledge. The technological rationality and scientific connotation of toy products results in a metaphorical relationship between modern toys and children. Hence, toys symbolise childhood and indicate the future role of children. As commodities, toys not only produce a child-oriented consumer group but also reshape the image of children as ideal citizens with responsibility and a mission. Through new materials and processes, domestic toys created a visual and material modernity, and the technical aspects of toys triggered popular associations. In addition, toys were used as a tool for political and ideological indoctrination, creating mythical notions of the “national”, “scientific” and “educational” nature of the product to shape “the little citizens” has a sense of nationalism and national identity.

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## References

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- [1] Chu, Hau-Kun. (2020). *Toys as Enlightenment: The Shaping of Modern Children's "Nationhood" through Toys*. Jinan University. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202101&filename=1021519794.nh>
- [2] Zhao Dongxia. (2019). *The Younger as the Mainstay-A Study of Children's Toys in Shanghai during the Republican Period*. Shanghai University. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CDFDLAST2020&filename=1019249760.nh>
- [3] Liu, Xiawei. (2018). *Shaping the "Little Nation": A Study of the National Children's Year(1935.8-1936.7)*. Huazhong Normal University. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD201901&filename=1018244816.nh>
- [4] Zhang,G.L.(1930). "The Theory and Implementation of Child-Oriented Education," *Educational Quarterly of the National Central University College of Education*, vol.1, no. 3, p.2.
- [5] Yu,J.F.(1933). *Toys and Education*. China Book Bureau Processing,China: Shanghai, p.6.
- [6] Shao,Z.Y.(1934). "Opinions on the Improvement of Children's Toys," *Qingdao Education*, vol. 2, no. 3, p. 31.
- [7] Li,J.Z.(1918). "Talking about children's toys," *Journal of Education*, vol.10, no.7, p.31.
- [8] (1926).Toys and Perils, Declarations,12 June, p.19.
- [9] Zhang,B.L.(1937). The Importance of Promoting Domestic Toys. Declarations, April 21, p.15.
- [10] Anonymous,(1934).“ International Trade News of the Week,” *Huanian*, vol.3, no.42, pp.16-17.
- [11] Shao,Z.Y.(1934). "Opinions on the Improvement of Children's Toys," *Qingdao Education*, vol.2, no.3, p.31.
- [12] Wei,S.Y.(1917). "Home Economics: The Problem of Children's Toys," *Women's Journal*, vol.3, no.8, pp. 4-6.
- [ 13 ] Tian,D.A.(1935). "The Scientificization of Children's Toys," *New Children's Magazine*,vol.1,no.1, p.38.
- [14] Anonymous,(1935).“The Scientificization of Children's Toys,” *Youth*, vol. 1, no.17, pp. 276-277.
- [15] Yang Su,(1935). "The Toys of Celluloid," *Common Sense Illustrated: Intermediate Children*,no.15, pp.33-39.
- [16] Anonymous,(1934). "One of the National Children's Toy Manufacturers," *Art Life*, no.6, p.27.

7<sup>th</sup> International Conference on  
**Social science, Humanities & Education**

16 - 18 December, 2022

Oxford, The United Kingdom

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- [17] Yang Su,(1935). “The Toys of Celluloid,” *Common Sense Illustrated: Intermediate Children*,no.15, pp.33-39.
- [18] Fang Yi,(1938).“The Method of Making Celluloid,” *Popular Science Monthly*, vol.1, no.2, pp. 39-41.
- [19] Adrian Forty,(2014). *Objects of desire*. Translated and published by Yilin Press,Nanjing, p.29.
- [20] Kong, X.M.(1933). “Outline of Celluloid Manufacturing,” *Industrial Centre*, vol.5, no.12, p. 564.
- [21] Xue Hu.(1939). “The Birth of the Toy Doll,” *Science Illustrated*, vol.5, on.17, pp. 676-677.
- [22] Cheng,G.T.(2017). *Chinese Gadgets*, The Commercial Press Limited Processing, China:Hong Kong, p.46.
- [23] Yan.(1936). “A Visit to the Kang Yuan Can Factory,” *Weekly Work Study*, vol.1, no.8, pp.133-134.
- [24] Anonymous,(1949).“Occupational Profile :The Printed Iron Can Industry,”*Education and Occupation*, no.207, p.33.
- [25] Anonymous,(1934). *Kang Yuan Printing & Canmaking 10th Anniversary Issue*,Printed and published by China Can Co., Ltd.,China:Shanghai, p.301.
- [26] Anonymous,(1935). “After the Visit to the Children's Science Exhibition,” *The Declaration*, 29 May, p.13.
- [27] Chen,J.Y.(1934).*Toys and Education*, Commercial Press,China: Shanghai, p.52.
- [28] Ruo,an.(1936). “The Toy Exhibition Held in the Capital and the Toy Business of the Factory,” *Kangzhuang*.vol.1, no.16,p.8.
- [29] Anonymous,(1918).“Educational Toys,” *Oriental Magazine*, 1918, vol.15, no.12,p. 3.
- [30] Andrew F.Jones,(2013). “How Children Became the Subject of History: On the Construction of Development Discourse in the Republican Period, ” *East Asian Conceptual History Collective*, vol. 5, no. 5, p.78.
- [31] (1936).“Advocating Toys for National Defence,”*Xing Hua*, vol. 33, no.50, pp.3-4.
- [32] “Advertisement for Kang Yuan Toys,”*The Declaration*, 23 December 1936, p.15.