

# *A Psychological Explanation for the Prevalence of Coffee Culture in China*

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**Abstract:** Being the world's third most popular beverage, coffee has not just dominated the drink choice of both young and old generations. It becomes a culture and an important part of social networks. However, coffee consumption is of a slightly different purpose in China. With a great economy and a potential market for soaring coffeehouse business, the traditional tea-drinking country has now developed its unique values regarding coffee drinking. In this paper, two approaches from a micro and a macro perspective are adopted to give an in-depth explanation for the rise of coffee culture in China. Through the analysis of secondary resources, it is concluded that coffee acts as a stimulant that provides cognitive enhancements for people to cope with pressure from work and school. In addition, coffeehouses provide places for social interaction to maintain social networks. Moreover, the success of large coffee-chain brands demonstrates the usefulness of social learning theory in marketing practice and reflects the value of conspicuous consumption among consumers in China.

**Keywords:** Consumption Behaviour, Cognitive Stimulant, Social Interaction, Operant Conditioning, Social Influence, Social Learning Theory

## 1. Introduction

With daily consumption by 80% of the world's population, Caffeine is one of the most used drugs in the world [1]. In modern society, the source of caffeine varies, ranging from daily beverages such as soda and tea to medical substances like headache medications and study drugs. However, coffee remains the principal driver of caffeine intake: over 2.25 billion cups are consumed in the world daily amounting to 2.5 cups per person on average. This shocking statistic reflects a trend, that is, drinking coffee has become a major part of a daily routine for people around the world. Ever since the Starbucks Corporation opened its first shop in 1971, this world's largest coffeehouse chain established 33,833 stores in 80 countries and achieved annual revenue of almost 30 billion USD in 2019. As of 2020, the global coffee industry has a market size of 102.02 billion. The success of the coffee companies like Starbucks has drawn the public's attention to a question: why has coffee become so popular?

Several factors from psychological and sociological perspectives can account for the prevalence of coffee culture. As the main constituent of coffee, caffeine is a central nervous system stimulant that brings several cognitive benefits such as improving alertness and attention. According to the adenosine blockade theory, caffeine blocks adenosine receptors due to similar structures, since adenosine is a neurotransmitter associated with mood depression, responsible for slowing the

heartbeat and lowering neural activity, this lessens the action of adenosine, increasing the rate of spontaneous firing, and elevating mood, blood pressure, heart rate and gastric activity [2]. It has also been shown to facilitate performance on memory [3, 4]. For this reason, caffeine is usually consumed by students or workers during their non-optimal time of the day to boost cognitive functions. In addition, buying and drinking a cup of coffee happens within a wider social context. The rise of the coffeehouse industry may reflect social and interpersonal consequences beyond the satisfaction and the neurophysiological benefits consuming coffee brings. The buying and consuming action of coffee creates mediums for individuals to meet their need for social interaction. This helps understand the success of coffeehouse chains such as Starbucks which sells itself as offering a relaxing place for socializing.

Driven by changing demographics, economic growth, rising middle classes, and cultural transformation, China had offered great market potential for coffee industries. Since the first Starbucks shop establishes in 1999 in Beijing, the brand has had over 5000 shops in the country. However, Starbucks is not having the dominant position in the Chinese coffeehouse business as it is in North American markets and other places of the world. Dubbed 'Chinese Starbucks', a domestic start-up named Luckin Coffee established in 2017 now calls itself the country's largest coffee chain. With 6,580 stores in China, its first-quarter earnings in 2022 showed a jump of almost 90% in revenue, despite challenging Covid lockdowns. This emergence of the domestic coffeehouse brand is the result of the growing economy and changing social attitudes toward lifestyle. Undeniably, coffee culture is beginning to be accepted and appeals to adventurous, open-minded, young, affluent, urban consumers in cities like Shanghai, Beijing, and Guangzhou [5]. However, coffee drinking among Chinese consumers is still a trend more than a habit, individual consumption is for pleasure, but not out of need. This paper will focus on the rising trend in coffee culture in China from a psychological point of view. Through the analysis of secondary sources and primary data collected using the questionnaire method, the paper aims to explain this social phenomenon in terms of the cognitive benefits of caffeine and the role of social influence in creating coffee mania.

## 2. Literature Review

Coffee is the most widely consumed beverage in the world just after water and tea. In the year 2020, around 166.63 million 60-kilogram bags of coffee were consumed worldwide. As a major contributor to coffee consumption, the United States reports shocking statistics: 7 in 10 Americans drink coffee every week; 62% drink coffee every day with an average consumption of over 3 cups according to the National Coffee Association. Considering the prevalence of coffee drinking, surprisingly few studies have provided a focused analysis of the reason for this craze from a psychological point of view. Existing perspectives fall into two approaches: micro and macro levels of explanation to the popularity of coffee drinking behavior and coffee culture derived from it. The micro approach focuses on the benefits that drinking coffee brings to individuals. This can be explained using the model of operant conditioning, which suggests that reinforcements will enhance the chance of an action being repeated [6]. In the case of coffee drinking, this reward-repeat model can account for the behavior of frequent coffee drinkers as a result of the cognitive benefits coffee brings. Coffee contains caffeine, a central nervous system stimulant proven by many studies across a wide range of time to have a positive effect on alertness. The consumption of caffeine, even at low doses, will result in raphe nuclei and locus coeruleus firing at faster rates. Since these regions mediate sleep and mood, this increase in activity is likely to boost alertness and reduces reaction time [7]. According to Brice and Smith, caffeine is especially effective in facilitating these cognitive performances when subjects are in low states of arousal. This improvement is no doubt a common agreement among its consumer. Moreover, the enhancement caffeine has on memory performance is another appealing reinforcer for coffee consumers, especially teenage students who are often required to memorize large amounts of

information at school. With a short-digit memorization task, Hindmarch et al. tested the subjects' reaction time under the conditions of a placebo and 300 mg of caffeine. They found that the consumption of caffeine greatly facilitated performance [3]. In terms of long-term memory, one recent study led by researchers of John Hopkins University used a visual discrimination task to examine the effect of post-study caffeine administration on memory consolidation [4]. The result suggests that performance for consolidation was indeed improved 24 hours after the administration. With the various cognitive enhancements, caffeine has on its consumers, it is reasonable to believe that individuals' coffee drinking behavior is reinforced by the neurophysiological benefits caffeine offers.

The perspective of the macro approach considers the wider social context when explaining coffee consumption behavior. This viewpoint focuses on the role of social interaction in the rise of coffeehouse business and coffee culture. Milgram's famous 'small-world' experiment showed that two individuals in the United States, unknown to each other, can be connected through a chain of acquaintances of no more than six people [8]. This groundbreaking finding suggested that human society is a small-world-type network characterized by short path lengths. Kleinfeld however, has questioned the reality of social networks' small-world properties [9]. He suggested that rather than living in a small-world network, people have a bias toward viewing the world as small-worlds to make it more comprehensible. Regardless, Kleinfeld highlighted that humans have the desire to create small-world connections. This may be key to understanding the success of coffeehouse businesses as they offer opportunities and platforms to meet individuals' desire of creating small worlds. Putnam in his book *Bowling Alone: The Collapse and Revival of American Community* wrote that social capital - connections among individuals, has declined gradually and that civil life is collapsing [10]. Through nearly 500,000 interviews during his research, Putnam showed that people have become increasingly disconnected from others in society, with evidence of joining fewer organizations, knowing neighbors less, meeting with friends less frequently, and even socializing with families less often. He pointed out that people now are willing to pay more price to reconnect to society through the semblance of the community they are losing. This creates a further need for social interaction with small-world platforms, thus providing market demand for coffeehouses as geographic hubs for socializing.

Most literature, however, was published by authors from western countries such as the United States and the United Kingdom and aimed specifically to explain the social phenomena of domestic societies. Despite being a great market for the coffee business, very few studies have targeted coffee consumption behavior in China. One of these studies by Nan Zhang titled *Coffee Market in China: Trends & Consumer Strategies* have provided a useful analysis of the reason for the prevalence of coffee in China from an economic point of view [5]. In this research, Zhang investigates political, social, and economic factors for the success of the Chinese coffee industry. Through these analyses, the author suggests that the rise of the coffee industry in China as a traditional tea-drinking country is the result of growing economic power, improving living standards, and changing attitudes toward lifestyle. However, it was highlighted that 'in China, coffee culture represents a young, emerging middle class and their growing purchase power instead of blends, tastes, and brewing techniques.' This argument emphasizes the difference in reasons for coffee consumption between Chinese and western customers - a symbol of modernity and a successful lifestyle than a culture created hundreds of years ago.

### **3. Discussion**

#### **3.1. Neurophysiological Benefit and the Mechanism of Operant Conditioning**

Since 2000, the GDP of China has been constantly increasing. According to the data from World Bank, China's GDP reached 17.73 in 2021. As a global economic power with large markets and great

development potential in both trading and investment, China has become the world's second-largest economy. However, this steep increase in the nation's economic power has created an enormous amount of pressure on working-class and middle-class employees. With the 966 working hour system practiced by the majority of large companies, workers are required to work from 9 am to 6 pm on a basis of 6 days a week, giving up to 72 hours of work time per week. In addition, teenage students in senior high schools also receive heavy burdens. Based on the statistics from Education Online, the number of examinees for the National College Entrance Examination has nearly tripled during the last two decades. With the hours of work and study rising and competition increasing, teenage students and white-collar workers are often required to stay alert and focused for a long period. As a result, they have turned to the support of stimulants - coffee. Statistics by Ma collected data from more than 4000 Chinese coffee consumers and showed that more than 76 percent of the total were under 35 years old [11]. This data illustrates that coffee is widely consumed by teenage students and white-collar workers, who belong to this age group.

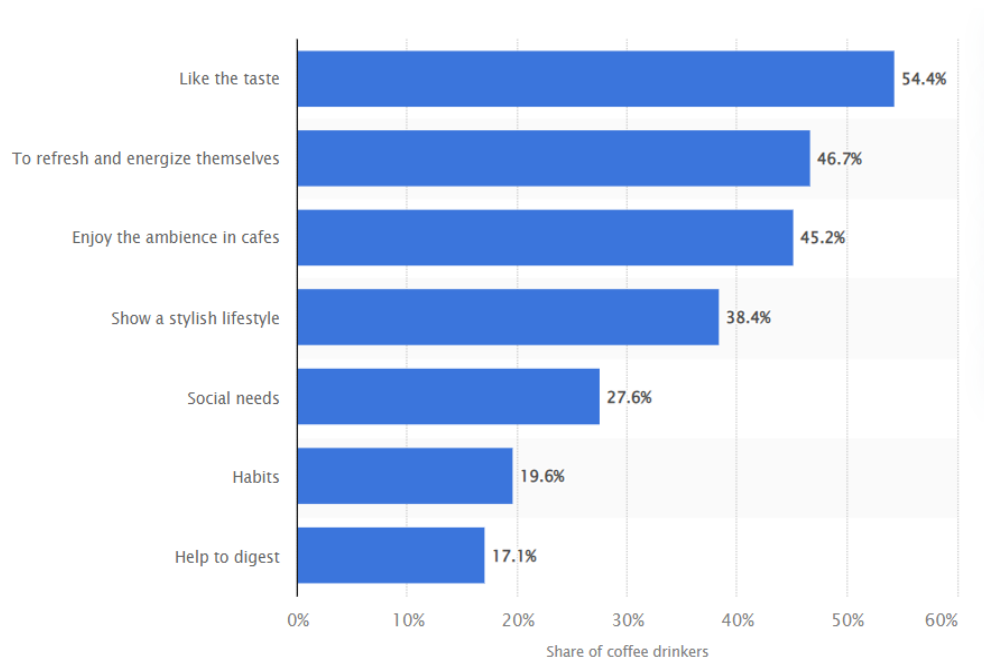
The reason for this pattern in consumption may be that coffee provides essential support and performance enhancements required by these frequent consumers. As discussed previously, coffee contains caffeine which has several positive effects on certain cognitive functions such as improving alertness and facilitating memory performance. Although the mechanisms by which caffeine enhances memory consolidation remain largely unclear, there are several possibilities. Caffeine has a similar structure as the neurotransmitter adenosine. Therefore, it acts as an adenosine receptor antagonist in the nervous system to block adenosine transmission between neurons. Adenosine is an inhibitory neurotransmitter that can act as a central nervous system depressant. Usually, it promotes and maintains sleep, regulates the general state of arousal as well as local neuronal excitability, and couples cerebral blood flow to energy demand. By blocking the adenosine A2A receptors, caffeine reduces adenosine-regulated metabolic activity to increase attention and alertness. Using a simple reward-repeat model, the coffee consumption behavior can be explained by operant conditioning in terms of the neurophysiological benefits coffee has. Increasing social stress required office workers and teenage students to stay concentrated for a long period. Prolonged work hours and study time created anxiety, discomfort, and also a drive to eliminate this unpleasantness. Through the positive effects of caffeine on cognitive functions, drinking coffee eliminates consumers' discomfort to an extent, and provides enhancements in neural performance. As suggested by operant conditioning, this serves as a reinforcement to increase the likelihood that the behavior of coffee consumption will be repeated. However, this micro explanation focusing on the cognitive boost itself is not sufficient to account for the reason behind the social phenomenon of the coffee craze.

### **3.2. Demand for Social Interaction, Effects of Social Influence, and Conspicuous Consumption**

Apart from gaining cognitive enhancement from drinking coffee to cope with pressure from work and school, the consumption of coffee has a wider social meaning. According to the statistics from China Global Television Network, instant coffee accounts for 63% of coffee consumption by the Chinese people. Indeed, instant coffee provides better affordability and convenience when the purpose of drinking is simply to improve cognitive performance for the reason discussed in the previous passage. However, the success of coffeehouse companies such as Starbucks and Luckin Coffee suggests an alternative explanation of consumer behavior in a social context. In another survey carried out by Ma to investigate the reason for drinking coffee among Chinese consumers, 2000 participants who are frequent coffee drinkers selected one of the seven reasons: 'like the taste', 'to refresh and energize themselves', 'enjoy the ambiance in cafes', 'show a stylish lifestyle', 'social needs', 'habits', and 'help to digest' [12]. The results in figure 1 showed that apart from 'like the taste' and 'to refresh and energize themselves', social reasons such as 'enjoy the ambiance in cafes', 'show a stylish

lifestyle', and 'social needs are the most frequent answers. In the age survey mentioned previously, about a quarter of coffee consumers are over 35 years old. For this age group, consumption behavior is unlikely to be to boost cognitive functions. Therefore, a social explanation must apply.

Figure 1 Major Reasons for Drinking Coffee



Milgram's small-world theory provided a stepping-stone for various research on the concept of social interaction. One of these research by Kleinfeld offered an alternative point of view regarding the small-world nature of the social network. In his paper *The Small World Problem*, Kleinfeld suggested that the reason why individuals find it easy to accept Milgram's results, which appears to be a counter-intuitive notion, is that people have the desire to create small worlds [9]. The reason Kleinfeld provide is that belief in a small world provides a sense of security. Therefore, people spontaneously develop the intention to create and maintain small worlds. In the case of coffee consumption, Kleinfeld's theory explained the rise of the coffeehouse business. As geographic hubs for social interaction, coffeehouses provide space and opportunity for people to establish connections with each other, thus creating social networks and maintaining their small-world characteristics of them. Other research also emphasizes the importance of small-world social interactions. Putnam in his work *Bowling Alone: The Collapse and Revival of American Community*, stressed that as the stock of social capital plummeted and the civil society collapsed, individuals would be willing to pay whatever price to reclaim the community [10]. Despite being a research focus on American society, this finding helps with understanding the role coffeehouses play in Chinese communities. Indeed, as social stress rises, coffeehouses are valued even more as providing a third place outside work and home for people to retain their lost social capital. In addition, Granovetter put forward the concept of 'the strength of weak ties' to explain the importance of social interaction [13]. He suggested that the connections one has with people outside the immediate circle of friends and family, provide the crucial glue to bind a network into a coherently inked whole, although these weak ties only form a small proportion of social links. Coffeehouse increases the probability that individuals encounter those 'weak ties' as well as those of strong connections. This encourages the formation of weak ties thus strengthening the greater social network. Moreover, coffeehouses, as meeting places, also foster the spread of information. As information passes through a social network, which no individual has a complete map of, coffee shops become part of a system of distributed cognition (Hutchins, 1991),



a place that allows collective decisions and collective memory retrievable [14, 15]. As people meet, in pairs or groups, the collective experience of the community is retrieved and exchanged. The behaviors and norms that come to be adopted are the reflections of this ongoing, interactive, collective cognition.

Apart from having a spontaneous need for social interaction, the effect of social influence also accounts for the triumph of the coffee industry in China. The key concepts of the social learning theory are modeling and vicarious reinforcement. Both of these play important roles in manipulating consumers' behaviors. The effect of modeling can be observed in the marketing strategy utilized by Luckin Coffee. Although being surpassed by Starbucks in terms of revenue, Luckin Coffee does own over 1000 more stores than its opponent, despite only having 5 years in the industry compared to the 20-plus years of Starbucks. This sudden success benefits from the brand's ambassador - Eileen Gu, an Olympic gold medalist freestyle skier, and model. Considering the modeling theory of the social learning approach, the idea of a brand ambassador uses the concept of identification. If an individual identifies with a model, then it is likely for him to reproduce the same behavior of that model. For an individual to better identify with a model, the model must have certain qualities the individual would like to possess. In the case of Luckin Coffee, Gu can be easily identified by the consumers due to her celebrity identity, Olympic accomplishments, and good personal image. The company then reinforces retention by displaying posters on the storefront. Due to a large number of stores and their wide coverage, the brand's image can easily reach its potential customers. With the increase in individuals' purchasing power, coffee became increasingly affordable. This makes it possible for individuals to reproduce the behavior of the identified model, that is, drinking the brand's coffee. Another important aspect of social learning theory is vicarious reinforcement, this occurs when an individual observes another person behave in a certain way and experiences a consequence perceived as desirable by the observer [16]. Zhang used the term conspicuous consumption in his paper to describe a common value among Chinese consumers. He argued that the possession of publicly visible luxuries, including foreign-branded products, is important to the consumer's 'public self,' motivated by a desire to impress others with their ability to pay particularly high prices for prestige products. Therefore, Chinese consumers are more likely to be influenced by the effect of vicarious reinforcement. In the case of drinking coffee, coffee itself can be seen as a foreign-branded product that can sometimes be positioned as a luxury. By publicly owning the product, e.g., drinking imported coffee, an individual's self-esteem is satisfied and perhaps a wealthy 'public self' is constructed. When observed by others, this behavior then gets repeated under the effect of vicarious reinforcement. This may explain the popularity of Starbucks products among teenagers despite not always being affordable for them.

#### 4. Conclusion

The prevalence of coffee culture in China can be explained with both micro and macro approaches, focusing on the cognitive benefits it has on individual consumers and its role as a lubricant in a greater social context. As a stimulant, coffee increases alertness, and arousal and facilitates memory performance, cognitive boosts that can be seen as critical for white-collar workers and teenage students to cope with the ever-increasing amount of burden. In addition, coffee drinking behavior and the rise of the coffeehouse industry have a vital role in maintaining social networks by providing platforms for interactions. Moreover, the triumph of the coffee-chain business can be seen as a success of social learning theory in practice, aided by the unique value of conspicuous consumption among Chinese consumers.

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