

STEPS TOWARD INTERPRETING THE TRADITIONAL CHINESE MEDICINE PHENOMENON IN CONTEMPORARY PACKAGING.

DESIGN FOR PERVASIVE CULTURAL BELIEF STRUCTURES

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ABSTRACT

This pilot study is aimed at drawing connections between food product packaging communication and the long-standing belief of Traditional Chinese Medicine (TCM). If effective packaging design, which relates deeply to the “Four Natures” (四性 Si Xing) belief system of cold-to-hot can be executed, a deeper connection can be made with the consumer. Through existing product analysis and interviews, we seek to better understand the relationship between the long-standing *Four Natures* system and current consumer preference. This would result in the ability to design for improved appeal, and ultimately increase inclination to purchase among consumers.

Keywords: Packaging, TCM, Yin Yang, Homeopathy, Nutraceuticals.

INTRODUCTION

Well-traveled people often suggest that to understand another culture, you must partake of the local cuisine. Diet is deeply connected to climate, accommodates or facilitates traditional culturally embedded practices or rituals, and largely defines who we are. Yes, we are what we eat. In the case of this study, looking at the traditional roots and contemporary state of the diet of China in regard to Traditional Chinese Medicine (TCM) reveals some interesting points of connection, which could inform packaging considerations for contemporizing the traditional belief of TCM. They could also bring those valuable qualities into some of the more convenient pre-packaged consumer food products that consumers in this emerging market

increasingly select while remaining appealing and authentic to older generations.

THE RELATIONSHIP BETWEEN YIN YANG, TCM, FOUR NATURES, AND FOOD THERAPY

Yin Yang literally means “dark and light”. Ancient Chinese people used the concept of Yin Yang to describe several interconnected and interdependent phenomena in the natural world, such as sky and ground, the sun and the moon, day and night, winter and summer, women and men...

The concept of Yin Yang lies at the origins of many branches of classical Chinese science and philosophy, and is a primary guideline of Traditional Chinese Medicine, which uses the Yin Yang system as a framework for defining the relationship between the human body and medicinal herbs. Yin and Yang characterization also extends to the various body functions, and - more importantly - to disease symptoms (e.g., cold and hot sensations are assumed to be Yin and Yang symptoms, respectively). Thus, in the TCM system, Chinese herbs believed to treat those specific symptom combinations can be classified by Yin and Yang.

The focus of this study is the *Food Therapy* (食疗 Shí Lǎo) system, which is the expression of the core *Four Natures* (四性 Si Xing) theory as it applies to food. The *Four Natures* system could be considered alongside the *Yin Yang* and the *Five Phases* (五行 Wǔ Xíng) theories as forming the basis of Traditional Chinese Medicine. The *Food Therapy* system is the theoretical scale that measures the relative coolness to hotness of any food, herb, or drink product (Figure 1). The system breaks foods and drinks into designated features of hot, warm, cool, and cold natures. In addition there is one more nature referred to as neutral, which is thought to be those herbs and foods which do not have special effects on the human body.

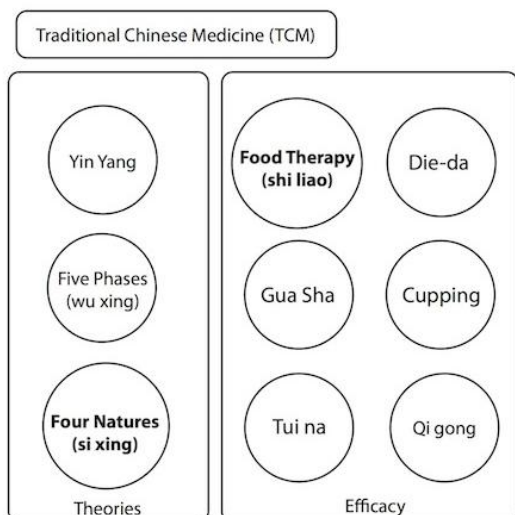


Figure 1. The Relationship of TCM, SiXing, and ShiLiao

While these designations are not highly scientific, they do follow patterns. There is general consensus on these features of food. For example, green plants that have been cultivated in a wet environment and receive little sunshine tend to have the feature of cold or cool; fruits grown in full sunshine and which have red peels are usually sweet and have the feature of hot. For example, food with red color is usually identified as being hot and green is the opposite; food grown in water is often considered cold, and so on (Figure 2). There are interrelationships between these features, which have been the result of multiple generations' interpretations. By knowing the four natures of food and herbs, Chinese people can take advantage of these features by consuming the appropriate foods when certain bodily symptoms appear.

This deeply embedded tradition of *Food Therapy*, medicating through food, leads the Chinese populous to believe that food literally is medicine. For over 2000 years the people of China have based their daily diet and treatment of chronic and acute ailment on choices in the combinations of food and drink that they consume. The focus on *Food Therapy* within Chinese society has even become a theme of many television shows and books recently. The measure of *Food Therapy*, however, varies somewhat from generation to generation, region to region, and even household to household.

But, not all Chinese are as knowledgeable or embrace this belief entirely, and *TCM* has been a controversial topic in China for several years. Objectors hold the opinion that *TCM* is not based in scientific research and is therefore not valid while supporters have continued to present examples to prove the successfulness of *TCM*. Regardless of any argument on the topic, at the end of the day there is general agreement that whether or not *TCM* is reasonable, it is a general belief among most Chinese people, a belief that one's body is balanced by the philosophy of the interdependence of Yin and Yang. Chinese people are not taught about either the *Four Natures* or *Food Therapy* systems in school. Most of the information has been passed along from family members, friends, books and TV programs. It is a social phenomenon. The *Food Therapy* system has been defined through years of experience, and there are generally two varieties of application; a preventative approach which seeks to maintain the daily balance of "forces" within one's body to maintain health, and a more reactionary approach in which one might medicate to cure or treat the symptoms of an acute or chronic ailment. For example, people tend to purchase pears when they are coughing because they feel that Balsam pears are good for the throat - as it helps to "cool one down". They might eat a diet that keeps their internal nature warm if they have blood circulation issues, and often feel cold. Within the *TCM* system all the internal organs have their corresponding part of the body where symptoms manifest, i.e. lungs are relevant to skin. If a person's skin is hypersensitive, there might be some problem with his/her lungs. *TCM* doctors usually check outer phenomena to get a rough idea about inner status. Often times, Chinese people can check themselves if they are having certain symptoms. For example, *Heating up* (上火, *Shàng Huǒ*) is the most commonly seen problem caused by the Hot/Cold natures of the body, and this diagnosis can be made by examining the bodily symptoms such as a cough with phlegm, canker sore, and constipation.



Figure 2. visual depiction of the Yin Yan as it connects to the Five Phases (五行 Wü Xing), seasons and tastes, respective foods and their colors, and finally product packaging

MOTIVATION OF STUDY

The purpose of this paper is to uncover the state of connections in existing packaging between the *Food Therapy* dietary belief structure and the perception of contemporary packaging color and form. If a meaningful connection between consumer emotional proclivities and desired quality of experience for food products that fit into the *Food Therapy* system can be identified, then the future design of packaging for these products should be executed in accordance with those identified connections. While this short study does not go so far as to suggest concrete criteria for more effective design of *Food Therapy*-related

packaging, it does attempt to underscore the significance of the relationship between the *TCM* philosophy and food packaging, and illuminate some examples. It is supposed that if people are “medicating” themselves with food/drink products that align with the *Four Natures* system of *Food Therapy*, then there should be some identifiable desired characteristics about these products. It should follow that people would choose products whose packaging attracts them with clear communication of contents, and which suggest effectiveness through color, form, and perceived opening and resealing action.

METHOD AND INITIAL FINDINGS

The research conducted in this brief study consisted of three phases: understanding the role that the *Four Natures* system plays in our subjects' lives, associative language and semantic description analysis, and package form/color association. In order to begin to understand how the emotional aspects closely related to the *Four Natures* system play into one's daily diet, we conducted a qualitative survey of 38 Chinese consumers aged 18 to 65 living in Mainland China, Canada and the US. The following are questions selected from the broader research instrument:

PHASE 1 – FOUR NATURES (SI XING) AND FOOD THERAPY (SHI LIAO) IN DAILY LIFE

In this first phase of questions we hoped to learn to what degree the traditional systems of *Four Natures* and *Food Therapy* played a role in daily life. These questions helped establish a baseline understanding to gauge further responses in regard to food packaging as it relates to the *Four Natures* system.

- **Q1 Please describe the general structure of the *Four Natures* system as you understand it.**

91.2% of our subjects felt that foods have different natures. Most subjects (38.2%) know that there are four different natures. They are not familiar with "neutral" because according to *TCM*, most of our daily foods are "neutral". Generally speaking the Hot/Cold natures are not as common but are still particularly worthy of being studied because of their special effect on the balance of the human body.

This question was important because it helped establish a baseline understanding of the respondents' knowledge of the *Four Natures* System. It also provided us with some useful descriptive language that the respondents used to describe the system.

- **Q2 Who pays attention to your daily diet?**

More than 50% of subjects chose parents and themselves as those who will be concerned about their everyday meals. Most subjects whose age is 18 to 35 chose parents as who will care about their meals and most aged 35 to 65 chose themselves

or a spouse. According to the respondents of our survey, people aged 35 to 65 are more likely to arrange daily meals for the family. They are the ones who usually shop at the supermarket and have first-hand interaction with food packaging.

This question helped us pinpoint the relative age group of those who are making purchase decisions about food products for the household or family. Although our assumption had been that primarily older people would pay more attention to health and diet, the age group seems much younger and covers two generations. These two generations differ greatly in terms of education and cultural norms, giving them a highly varied perspective on a 'healthy life'.

- **Q3 Will you change the food you eat to find relief when you feel ill?**

We suppose that most people will use *Food Therapy* for relief when they feel sick. The majority of those asked chose "Depends on how bad I feel" because in some Chinese people's opinion, medicine is poison. If they always take medicine immediately after they feel bad, their body will become dependent on those pharmaceuticals and lose the ability to fight by themselves. Therefore, they will use *Food Therapy* to adjust their body if the illness warrants it. However, a lot of young people who live alone and do not have time to care for themselves will take pills immediately. Therefore 81.2% of those questioned look to food as a solution to health, and 21.2% of those rely on either pills or pills and food in combination.

This suggests that most Chinese people would like to use food to medicate themselves. It seems the need of food therapy is more of a basic need for their normal life (in the lower part of the design pyramid). This begs the question of whether greater emphasis should be put on the actual "food" (as opposed to medicines) aspect of the packaging design, rather than trying to capture an emotionally charged message.

- **Q4 what kind of product will you use for relief when you become “Heated Up”?**

Tea, water, and watermelon were among the most mentioned food products by our respondents.

Although our sample number is small, we feel that this suggests that there may be a trend toward more beverages or beverage-related foods to relieve the symptoms of “heating up”. This deviates from the types of food typically considered to be part of the *Food Therapy* system, and could provide potential new future avenues of food packaging that works with the *Food Therapy* system.

- **Q5 Do you know whether your body is hot or cold? And how do you know that?**

Most respondents who said that they knew whether their body is hot or cold were told so by *TCM* doctors. Others know it when their hands and feet often tend to get cold, or when they easily become “heated up”. People often self-diagnose these symptoms.

This is particularly important because if people are seen to know whether their body is hot or cold, they would know what kind of food can help them find relief. And if they have a strong feeling of a hot/cold body (whether they can feel it’s hot/cold or they have been told and they believe so), they would choose food with a clear preference toward the product that they perceive will cure their symptom.

PHASE 2 – SEMANTIC DESCRIPTION

While phase one of this study focused on understanding people’s knowledge base around *Four Natures*, phase two sought to survey our subjects in regard to language that they use to describe their feelings when experiencing the effects of *Heating up* (上火 *Shàng Huǒ*) and *Cooling off* (降火 *Jiàng Huǒ*). Through the responses we were able to better understand the appropriate design elements to create contemporary product packaging aligned with the *Four Natures* of the *Food Therapy* philosophy of *TCM*.

- **Q6 Use a word to describe the feeling of “Heating Up”**

Most of the respondents describe “heating up” as anxious or angry

- **Q7 Use a word to describe the feeling if your body is cold**

Most of them describe “cold” as chilly, weak or nervous

- **Q8 Use a color to describe the feeling of “Heating Up”**

50% of the subjects use red to describe the feeling of hot. 20% of them use orange to describe hot. Other answers are grey (10%), blue (5%), green (5%) and cyan (5%). The responses to this question showed that while most of the respondents replied that red is the color that they primarily associate with “heating up”, orange was also mentioned to a significant degree. This could be used as a design insight that the color orange be applied specifically to suggest countering the “cooling off” symptom.

- **Q9 Use a color to describe the feeling of “Cooling Off”**

37% of the subjects use blue to describe the feeling of cold. 32% of them use white to describe cold. Other answers are grey(10.5%), black(5.2%), brown(5.2%), red(5.2%). This is a significant response because while blue is an expected and typical answer, white – which is usually considered neutral- was considered by many of our subjects as associated with “cooling off”. This could potentially identify white as an important element of packaging for foods that are intended to relieve “heated up” symptoms.

PHASE 3 – FORM ASSOCIATION

This phase of the research sought to draw out preconceptions in regard to packaging form and relative “degrees” along the *Food Therapy* measure of cold to hot.

- **Q10-1 Please place these forms of package in cold(1) to hot(9) order.**

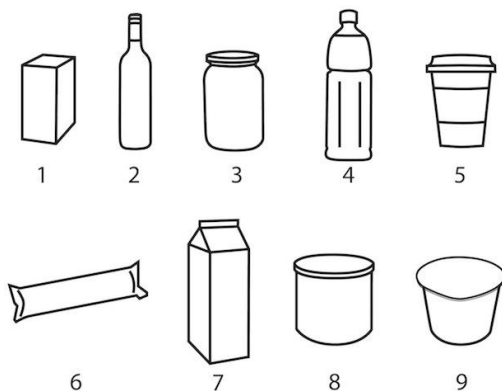


Figure 3. Form and cold/hot association exercise.

The responses to this question were greatly affected by the preconceived association that the subjects had for the respective forms (number 2 wine, number 7 milk, etc). Although the responses in Q10-1 vary, forms 1,3,and 8 received the widest variety of answers. This is likely due to the somewhat “generic” nature of these forms, which do not necessarily associate them with any specific product in the minds of the respondents (Table 1).

Answers					
1	Cracker	Candy	Milk	Ice cream	Beer
2	Wine	Beer			
3	Canned food	Jam	Honey	Ketchup	Pickles
4	Juice				
5	Coffee	Box	Ice cream		
6	Cracker	Ice cream			
7	Milk				
8	Nuts	Chocolate	Ice cream	Powdered milk	Sugar
9	Yogurt	Ice cream			

Table 1. Form and contents association exercise results.

- **Q11 Please place these coffee packages in cold(1) to hot(7) order.**

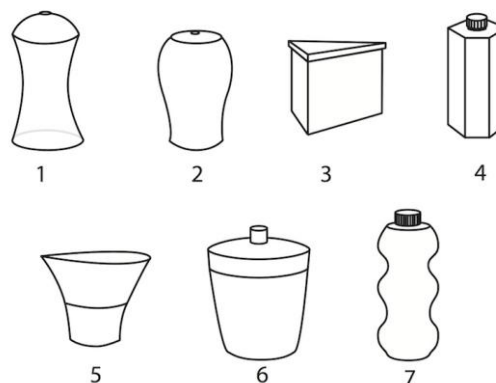


Figure 5. New forms cold/hot association exercise.

With the preconceived association of package form contents minimized (all product forms are identified as coffee, and nature of forms are less easily associated with specific products or product types), the responses of those questioned suggested that forms with curves, and specifically those which are radially symmetrical, are perceived as “hotter” than forms which are more angular or asymmetrical.

FINDINGS AND CONCLUSION

While this study is not exhaustive, it does begin to uncover some tendencies among those questioned in regard to the connection between the *Four Natures* system of *Food Therapy* and food product packaging. The understanding of respondents’ familiarity and association with *TCM* as it is applied to food and medicine was drawn out in the form of helpful descriptive words that may be used as design inspiration. Additionally, the connection between “hot” food items and curved and radially symmetrical product package forms stands out as one of the most significant findings of this study.

In subsequent phases of this research we will attempt to confirm that colors associated with heating up or cooling off are in fact polar opposites, and whether the blue-green range is chosen more often when consumers want to cool down and red-orange range is chosen when they want to heat up. We will also explore the combination of color, level of graphic “decorative styling”, and form combinations that are most favored to achieve varying levels of perceived cold-cool-warm-hot features in the *Four Natures* system of *TCM*. It is our belief that food packaging

with the appropriate messaging of *Food Therapy* will help those who are quite knowledgeable and who subscribe to the *Food Therapy* system confirm their choices, and will factor in as a supplement to those with less knowledge and experience to make an appropriate product choice.

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