

The Foundations of Channel Theory

Abstract

Acupuncture is a rich and diverse method of treatment that has many different ways of assessing and treating the same symptoms and illnesses. However, this variety of methods and models can lead to confusion. The aim of this article is to present a simplified model of traditional acupuncture theory that can be used to balance the channels and thus restore the body to health. The theory presented is illustrated by case histories from the author's own clinical practice.

Introduction

Most acupuncturists come out of school with some knowledge of diagnostics and point selection, but rarely understand the complete system of how acupuncture can be used in a clinical setting. They will have studied some of the primary methods of diagnosis such as observation of the tongue and palpation of the pulse, as well as the principles of point selection, but this is often presented empirically without explaining the underlying reasons why a specific point may be effective for a particular problem or area of the body. The study of yinyang, five phase and zangfu theories tends to occupy the core of the acupuncturist's early training, and often comprises their main clinical tools. Although these tools are important components of any Chinese medicine course, they do not necessarily provide a sufficiently coherent and systematic way of thinking that will reliably lead to a logical, simple and effective acupuncture treatment plan.

To diagnose and treat a disease with acupuncture requires specific diagnostic systems – or as Dr. Richard Tan puts it, 'Acupuncture diagnosis for acupuncture treatment' (Tan, 2007). But what exactly is 'acupuncture diagnosis'? According to Dr. Tan one should first identify the 'sick' channel(s), then determine the appropriate channel(s) for treatment, and finally select the appropriate point(s) on the appropriate channel(s). This article focuses on the second step of this process - determining the appropriate channel(s) for treatment.

Understanding channel theory is one of the most daunting tasks faced by the novice acupuncturist. There are many relationships that describe the interactions between the channels, some of which are described below. Typically each relationship is described separately, with no consistent links

identified between them. For example one relationship might be explained using five phase theory and another using the theory of the *I Ching* (*Book of Changes*). Although all of these theories can be effective, their explanations are often scattered across a wide landscape of Chinese philosophy and history. Chinese medicine includes the theories of yinyang, four levels, five phases, six warps, eight principles, ten stems, twelve channels and twelve branches (although TCM-style acupuncture in its 20th century form generally does not talk about the latter in any significant detail). One of the most difficult aspects of acupuncture channel theory is finding a model that integrates these different theories. Chapter 79 of the *Nei Jing* (*Inner Classic*) describes the basic building blocks of the channel system as a six-fold structure comprised of three yin and three yang channels: 'Before the wu xing, the dynamic five phases, there may well have been a system based on the number six' (Wu, 1993). As will be explained below, a system based on the number six can be used to describe the numerous relationships between the various theories mentioned above.

Channel system theory

The actions of many acupuncture points are often explained empirically. An example is Shaoze SI-1, which can be used to treat scanty breast milk. However, such empirical observations are readily explainable through channel theory - in this case by the influence of the Small Intestine taiyang channel on its biorhythm-opposite (in the Chinese 24-hour clock) channel, the Liver jueyin channel (which flows through the breast to ensure the free flow of breast milk, as well as having the jueyin function of controlling blood). Dr. Richard Tan presents five such systems of channel interaction in his teaching. Here these five relationships are examined along with an extra relationship proposed

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by Dr. Yoshio Manaka in his book *Chasing the Dragon's Tail* (Manaka, 1995). The first two systems will be well known to most acupuncturists, while the other four may be more obscure. Understanding these systems can clarify why specific acupuncture points have particular actions. Generally these systems describe the relationships between pairs of channels, so that when a particular channel or organ is 'sick', a balancing channel can be selected for needling (as in the case described above of Shaoze SI-1 balancing the Liver jueyin channel to treat scanty breast milk).

System 1: same-name channels

The first system pairs channels of the upper extremities with their counterparts in the lower extremities that share their Chinese name. The pairings are as follows: taiyang - Small Intestine and Bladder; yangming - Large Intestine and Stomach; shaoyang - Sanjiao and Gall Bladder; taiyin - Lung and Spleen; shaoyin - Heart and Kidney; and jueyin - Pericardium and Liver. This system is described in *Nei Jing Su Wen (Inner Classic Basic Questions)* Chapter 79, where it is suggested that each pair of channels represents a different level of qi with specific qualities (see Wang & Robertson, 2008 for an extensive discussion of this concept). For example, the Lung and Spleen taiyin channels are said to be the outermost of the yin channels, and are associated with nourishment. Using this system involves treating a yin or yang channel by needling the yin or yang channel that shares the same name (see below for examples).

System 2: interior-exterior pairs

The second system pairs each yin channel with a yang channel corresponding to the same phase of the five phases. Although some of these relationships seem logical given the functions of the paired organs - such as the Kidney and Bladder in the water phase (both strongly linked to fluids) - others are less obvious, and the relationship is often presented merely as an empirical fact without sufficient theoretical explanation. The Lung and Large Intestine, for example, both have a filtering function: the Lungs filter the qi entering the body through breathing and the Large Intestine filters water from the impure residue of food before it is expelled from the body. Using this system involves treating a yang channel by needling a yin channel (and vice versa) to take advantage of their mutual interaction, as suggested in *Nei Jing* chapter six: 'The qi of the yin and of the yang move unobstructed throughout the entire body. This is because of the interplay of the yin and the yang' (Ni, 1995).

System 3: the continuous circuit

The third system is the continuous circuit of paired channels (Manaka, 1995), which incorporates both the same-name channels and the interior-exterior relationship. Putting these two relationships together creates a continuous circuit between a yin channel of the hand and foot and their corresponding yang channels. An example would be Lung hand taiyin, Spleen foot taiyin, Large Intestine hand yangming and Stomach foot yangming, all of which combine to create one closed circuit. According to Manaka, any channel in this closed circuit can be used to regulate the others, and thus there are three options to treat any particular channel. Conversely, one channel can be used to treat the other three channels, which makes this system useful when more than one channel is affected within a group.

System 4: the branching system

The branching system pairs yin and yang channels based on their shared Chinese name, function and location in the upper or lower extremity. Each of the six yin and yang channels is said to have an opening, pivoting or closing function as detailed in Chapter 5 of the *Ling Shu* (See Wang & Robertson, 2008 for an in-depth explanation of this aspect). For example, the yangming and jueyin channels are both considered to have a closing function, whilst shaoyang and shaoyin have a pivoting function. In this system a yin channel in the upper extremity is paired with a yang channel in the lower extremity with a similar function. An example of this would be foot Spleen taiyin paired with Small Intestine hand taiyang, both of which have an opening function. This system is thus based on pairing channels of opposing polarities - yin-yang and hand-foot - and can thus have a powerful effect on the channel being treated.

System 5: biorhythm opposites

The fifth system is based upon the Chinese concept of biorhythm. This theory states that during every twenty-four hour period each channel has a two-hour period when its qi flow is strongest, and an opposite two-hour period when its qi flow is weakest. By pairing a channel that has the most qi with a channel that has the least qi, we get the law of midday-midnight (Hicks et al., 2004). For example, the Kidney foot shaoyang channel is at its peak between five and seven o'clock in the evening, and is thus paired with the Large Intestine hand yangming channel, which is at its strongest between five and seven o'clock in the morning. As with the previous system, this is another example of pairing channels with opposing polarities, where yin-yang and hand-foot are in opposition. This

system is particularly useful to treat pathologies that occur at a specific time, such as waking at the same time every night.

System 6: biorhythm neighbours

The final system covered here uses Chinese biorhythm theory, but pairs the channels with their Chinese clock 'neighbours' (Tan, 2003). For example, as the Heart hand shaoyin channel is at its strongest between the hours of 11am and 1pm, it can be paired with either the Spleen foot taiyin (9am-11am) or the Small Intestine hand taiyang (1pm-3pm). Although this system duplicates relationships found in two of the other systems - the interior-exterior and same-name connections (amongst the yang channels) are repeated here - a new relationship is added between yin channels of the hands and feet (i.e. the hand jueyin Pericardium channel paired with the foot shaoyin Kidney, the hand taiyin Lung with the foot jueyin Liver, and the hand shaoyin Heart with the foot taiyin Spleen). Because it employs yin channels to treat other yin channels - i.e. yin qi in the foot channel to balance yin qi in the hand channel (and vice-versa) - this method conserves qi and is thus particularly useful to treat blockages along the yin channels in cases where the patient exhibits deficiency. A good example of this are the Tung points 88.01 Tongguan, 88.02 Tongshan and 88.03 Tongtian, all of which treat Heart palpitations and pain, and are located along the foot Spleen taiyin channel.

Background theory

In order to explain the various channel relationships that can be used in treatment, it is first necessary to describe the background theory. In the *Nei Jing*, yang is associated with heaven and yin with earth: 'In the universe, the pure yang qi ascends to converge and form heaven, while the turbid yin qi descends and condenses to form earth.' (Ni, 1995). This fundamental distinction of yin and yang is represented in the *I Ching* - probably the first text on yinyang theory (circa 700 BCE) - as solid and broken lines (see Figure 1).



Fig. 1: The basic associations of yin and yang

The *I Ching* developed this basic representation of yin and yang further, including two more levels of complexity that represent the changes that occur between the two polarities of yin and yang. The first of these levels is known as the four stages, and the second the eight trigrams. The normal representation of these levels is as a linear top-down diagram (See Fig. 2). Although this representation is useful in demonstrating the logical development of the theory, it is limited in its usefulness with regards to channel theory.

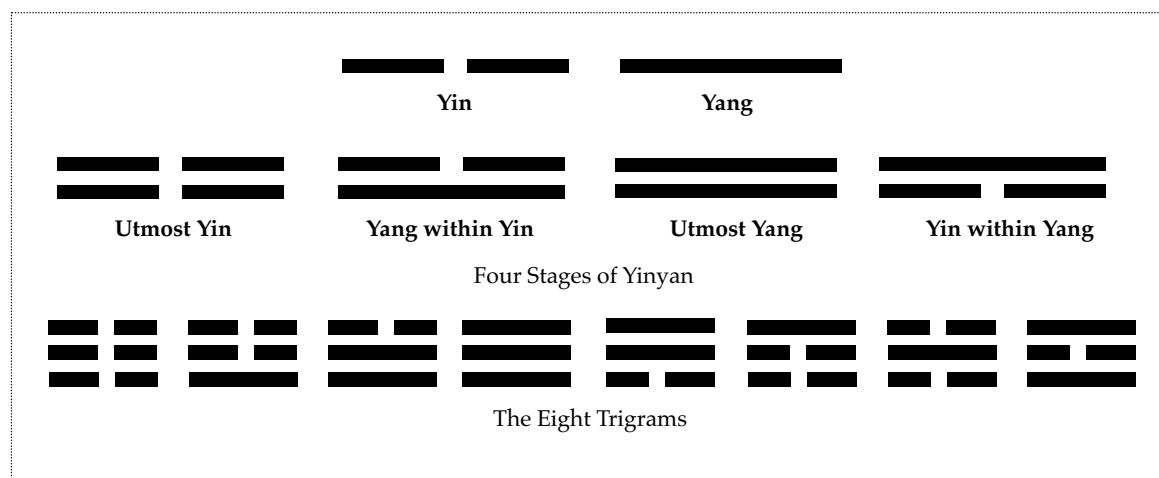


Fig.2: Three levels of yinyang

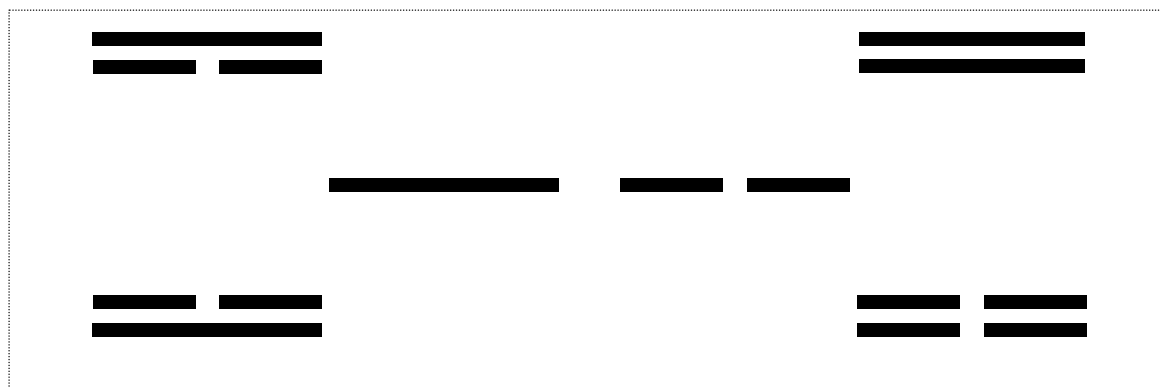


Fig. 3: Two levels of yinyang arranged in a circular format

By rearranging the first two levels of yinyang in a circular manner, with level one (yin and yang) in the centre and the second level (four stages) around the first, we get a circular six-fold structure that can be used to explain the interrelationship of the channels (see Fig. 3).



Fig. 4: The four stages with their associated seasons

In chapter five of the *Nei Jing*, the passage of time from day into night, the seasons and the five phases are described in terms of yin and yang (see Fig. 4). The progression of yinyang theory from a dualistic model to a model encompassing the four seasons is logical and straightforward. However, its progression to the five phases is more complex. In this model the fifth phase - earth - can be seen as the inter-season, or that which occurs between the other seasons. In this case it is normally shown in the centre of the other seasons; thus each season returns to the centre before changing to the next season (see Fig. 5).

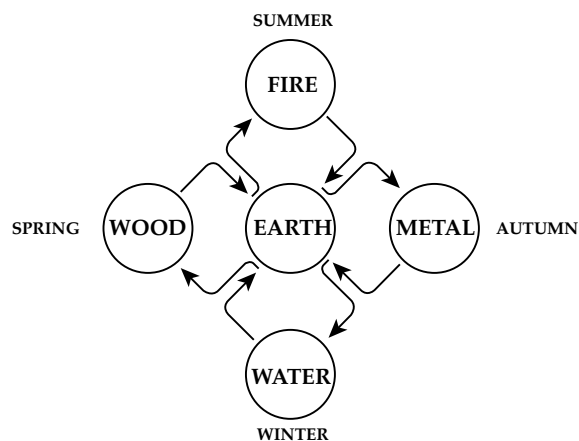


Fig. 5: The five phase seasonal model

Five phase theory might be said to be numerically at odds with the six channels that make up the human body. To remedy this the central (earth) position is divided into two, which gives one yin and one yang aspect. The yin part corresponds to earth (or Spleen foot taiyin and Stomach foot yangming), whilst the yang part corresponds to heaven (Sanjiao hand shaoyang and Pericardium hand jueyin) (see Fig. 6). By applying these associations to the circular six-fold model introduced above, we get the following model (Fig. 7)

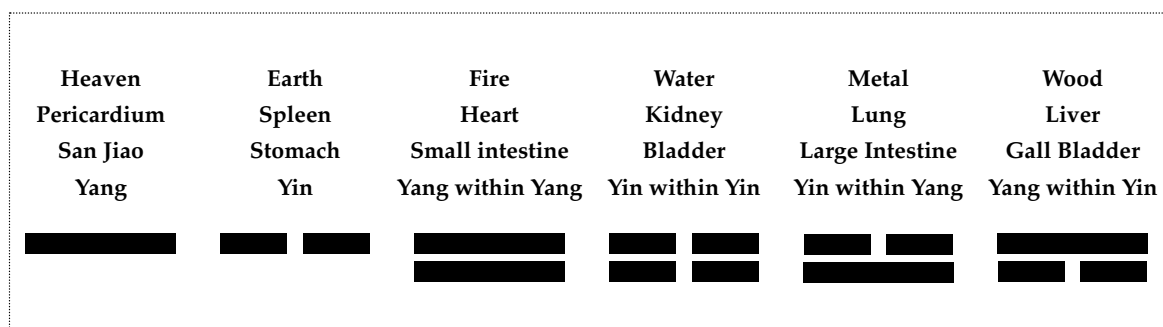


Fig. 6: Channel correspondences

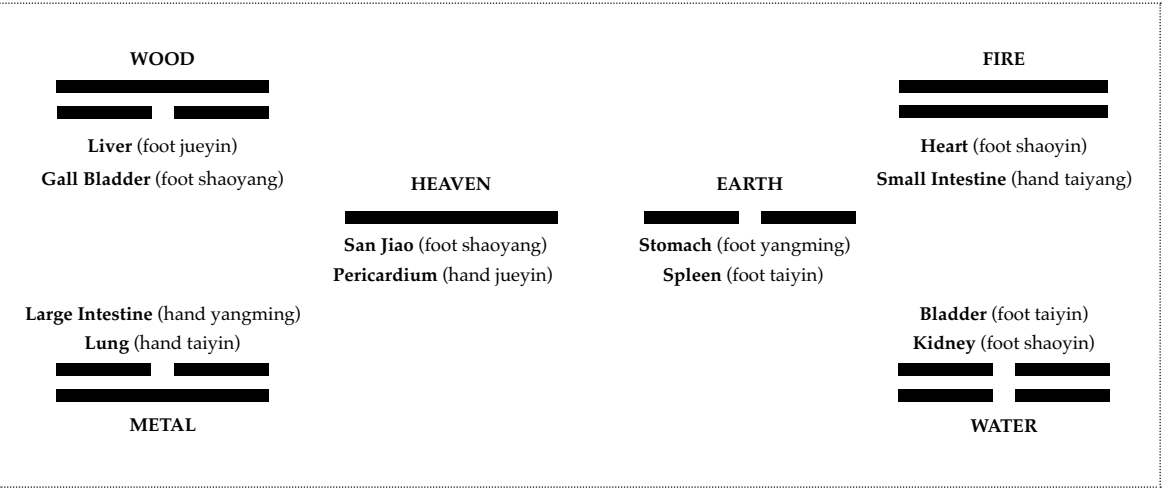


Fig. 7: Basic model of acupuncture channel relationships

The basic model shown in Figure 7 can be used to show the various relationships between acupuncture channels. Each position on the model corresponds to either yin or yang; if the bottom line of each pair of lines is solid it indicates a yang position, whereas if the bottom line is broken it indicates a yin position. Thus the Lung and Large Intestine are in a yang position, whereas the Kidney and Bladder are in a yin position. All channels with a solid bottom line (i.e. yang) start or finish in the arms, whereas those with a broken bottom line (i.e. yin) start or finish

in the legs. There is also a yin and yang distinction within each position based on whether the channel travels along the yang or yin aspect of the limb. In the following sections this diagram is used to show how the different channels can be used to balance each other. For channels to have a therapeutic effect on each other their relationship must involve a difference in polarity – based on either the yinyang nature of their overall position or the yinyang nature of the channel itself. In the following sections this will be explained further.

The systems

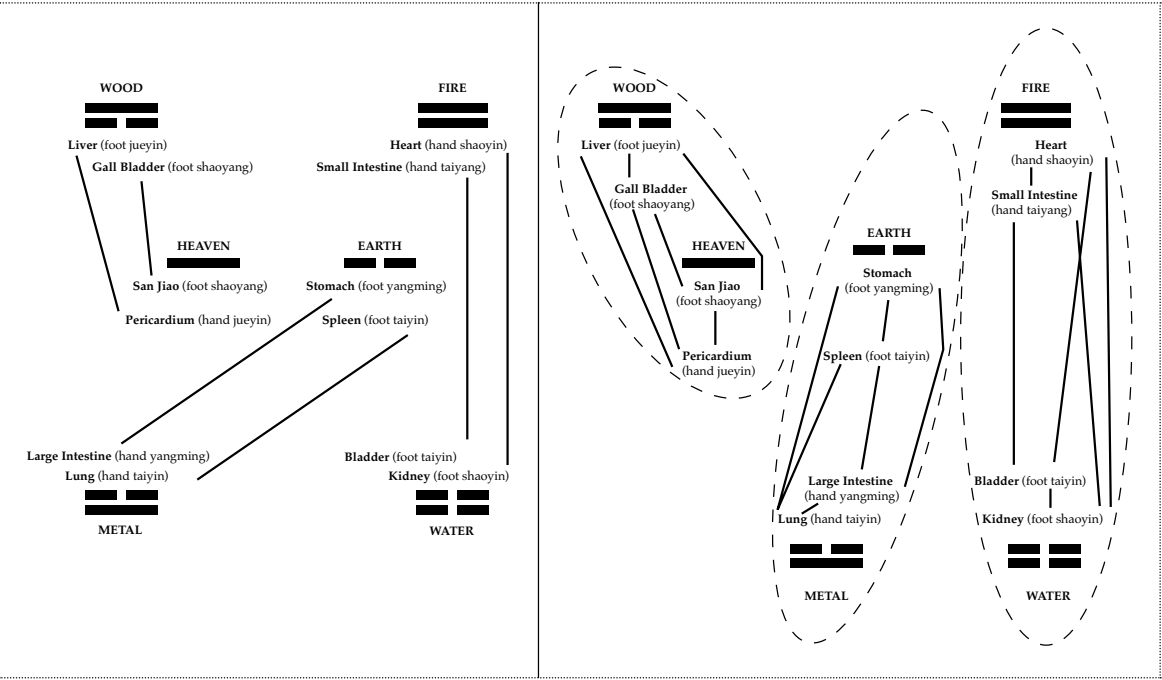


Figure 8: System 1

Figure 9: Systems 1, 2 & 3

Figure 8 represents the connections between the same-name channels (System 1). For example the yangming channel is made up of both the Large Intestine and Stomach channels. Although both channels are yang in nature, the Large Intestine channel is relatively yang in relation to the Stomach in terms of its overall position in the diagram. Although points on the Large Intestine channel can treat Large Intestine pathologies, points on the Stomach channel can be more effective because they have a relatively yin polarity. For example, this is exemplified by the effects on the Large Intestine of the point Shangjuxu ST-37, the lower he-sea point of the Large Intestine. Similarly, points on the Kidney channel can effectively treat Heart pathologies: both channels belong to shaoyin, yet the Kidney channel is yin in polarity (starts in the foot) in contrast to the yang polarity of the Heart (finishes in the hand). A clinical example of this is Zhubin KID-9 being used for mental disorders, depression and palpitations (Deadman et al., 1998).

Figure 9 incorporates System 1 (same-name channels), System 2 (interior-exterior pairs) and System 3 (continuous circuit). System 3 essentially combines Systems 1 and 2, so that any channel can balance another in the same group (shown by the lines connecting the various channels). For example, the foot yangming (Stomach) channel can balance the hand yangming (Large Intestine) channel, as well as the foot taiyin (Spleen) and hand taiyin (Lung) channels. Thus points on the Stomach channel can treat pathologies involving the other three channels. For example, Zusanli ST-36 is said to have the functions of rectifying the Spleen and Stomach, harmonising the intestines and dispersing stagnation, and breaking thoracic blood stasis (Ellis, Wiseman & Boss, 1991). Or Tung points 88.17 Simazhong, 88.18 Simashang and 88.19 Simaxia - all located along the foot Yangming channel - treat Lung disorders as well as pain along the foot Taiyin Spleen and hand Yangming Large Intestine channels.

Figure 10: System 4

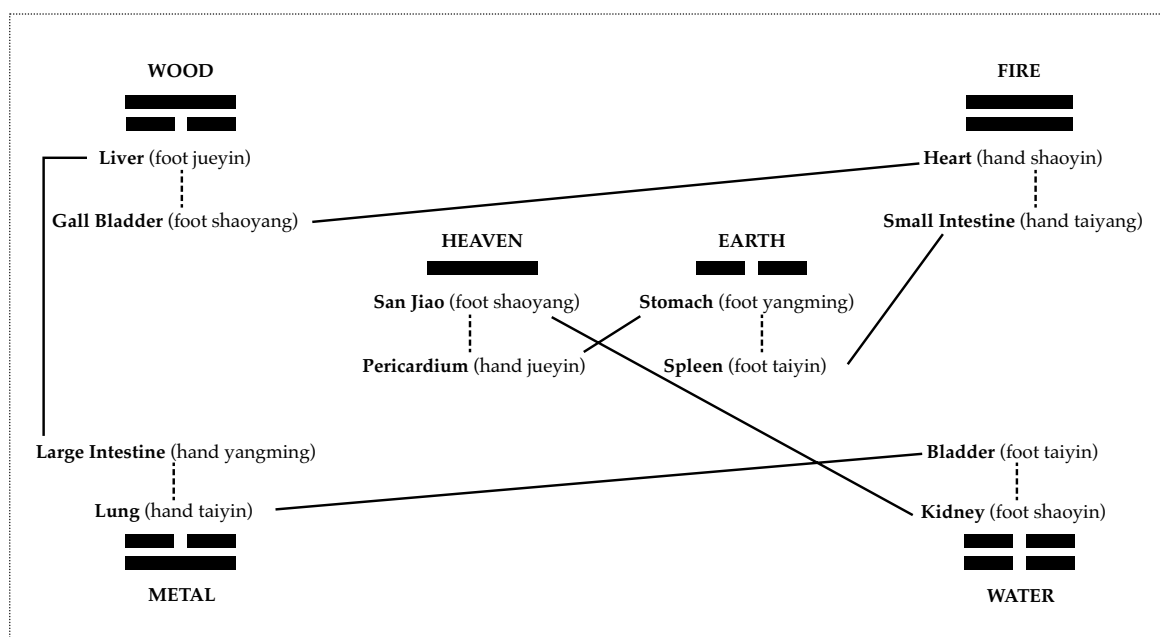


Figure 10 shows how System 4 (the branching system) combines with System 2 (interior-exterior pairs). The connecting lines show that qi flows from a yang channel to a yin channel within each position, and from a yin channel to a yang channel when moving from one overall position to another. The lines show which channels can balance each other and illustrate the dynamic balance between yin and yang. Thus

points on the Lung hand taiyin channel can treat problems related to the Bladder channel; for example Lieque LU- 7 can be used to treat sinus problems or headache along the Bladder Channel. Or points on the Large Intestine channel - such as Hegu L.I.-4 - can treat pathologies of the Liver channel such as headache and redness of the eyes (Ellis, Wiseman & Boss, 1991).

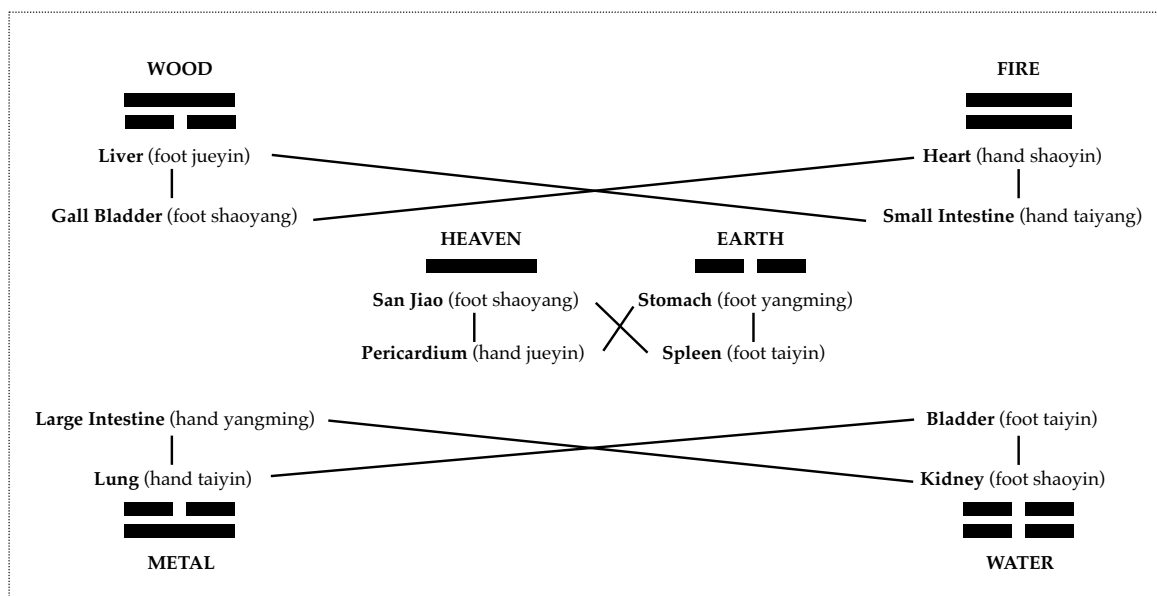


Figure 11: System 5

Figure 11 shows how in system 5 (biorhythm opposites), the channel which is 'full' can be used to balance the channel that is 'empty' (connected by lines in the diagram). For example, at 12pm the hand shaoyin Heart channel is 'full', and can be used

to balance the foot shaoyang Gall Bladder channel, which is 'empty' at this time. A good example of this is Yanglao SI-6 being used for blurred vision (which is normally associated with Liver blood deficiency – see Ellis, Wiseman & Boss, 1991).

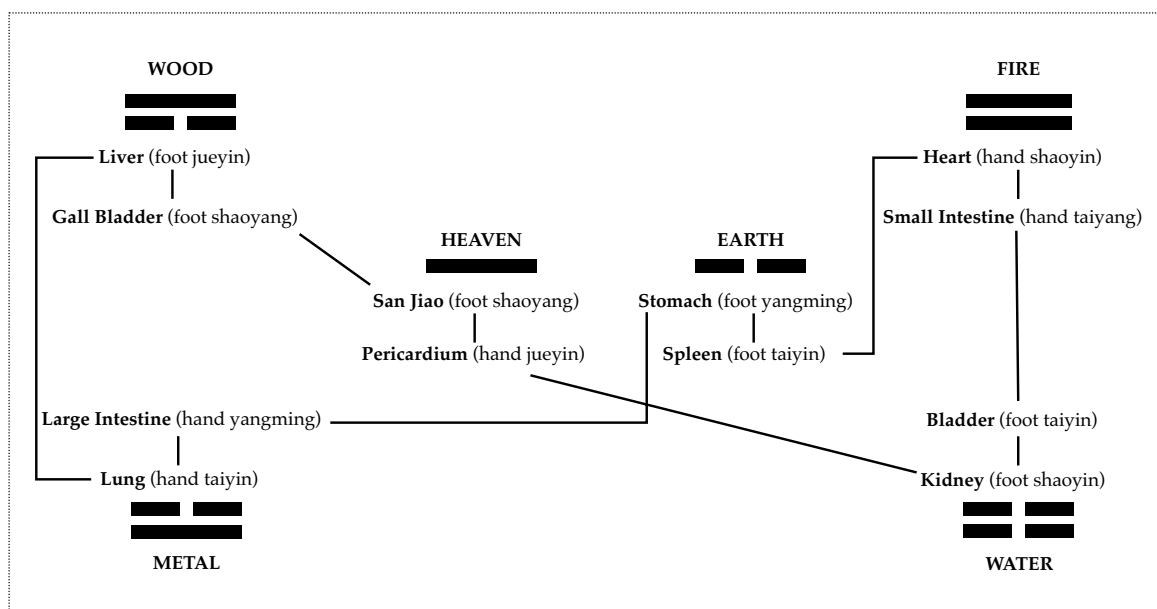


Figure 12: System 6

Figure 12 shows how System 6 (biorhythm neighbours) involves a pattern of alternating yin and yang, with qi moving from a yin position to a yang position via a yin channel, and a yang position to a yin position via a yang channel (in contrast to system

4). This explains why points on the Spleen taiyin channel can treat Heart channel-related problems; for example Tung point Tongguan 88.01 (along the Spleen channel) treats palpitations and other diseases of the Heart.

These models have multiple uses and are particularly useful in complex pathologies. The diagrams provide a visual map of the relationships between the channels and can help practitioners devise effective treatments. In clinical practice we sometimes see two channels affected that are not linked through one of the six systems. In such cases, we can find one channel that treats both channels, thereby simplifying our treatment plan. For example, Kidney and Liver disorders can be treated using the hand shaoyang Sanjiao channel – such as the Tung point Huanchao 11.06 (located on the lateral side of the ring finger) which tonifies the Liver and the Kidneys. Or Heart and Lung problems involving fullness in the thorax and dyspnoea can be treated using points along the Bladder taiyang channel such as Kunlun BL-60 (Ellis, Wiseman & Boss, 1991). Or the Spleen and Kidney channels can be treated by hand yangming point Hegu L.I.-4, which treats menstrual problems and tonifies the lower burner and the Kidneys (Ellis, Wiseman & Boss, 1991).

Case histories

The case studies presented below offer simple examples of the clinical use of the various systems described above. The diagnostic procedure used in these cases involves first identifying the affected channel(s), and then choosing which channel can be used to balance the affected channel(s) based on the different systems described above. The following guidelines are used in choosing which channels to use in treatment:

- If more than one channel is affected the channel that balances all affected channels should be identified. For instance, the Kidney foot shaoyin and Liver foot jueyin channels can both be balanced using the Large Intestine hand yangming channel (Kidney foot shaoyin - system 5, Liver foot jueyin - system 4).
- Where possible use the channel that has the most relationships with the affected channel. For example, the foot taiyang Bladder channel can be balanced by four different channels, but the channel that appears in two systems is the Lung hand taiyin channel (Systems 4 and 5) and is thus likely to be the best choice.

The choice of points on the balancing channel involves identifying ashi (pressure-sensitive) points that 'mirror' the affected area as taught by Dr. Tan (amongst others). For example, the knee joint is mirrored by the elbow joint, the hip joint is mirrored by the shoulder joint and the ankle joint is mirrored by the wrist joint (see Figure 13). For example, if a patient has pain in the area of Taixi KID-3 on the right

hand side, one would look for ashi points in the left wrist (i.e. Yangxi L.I.-5, Daling P-7, Shenmen HE-7, Yangchi SJ-4 and Yanggu SI-5). Although all these points will potentially have a positive effect on the ankle pain (you may have a specific channel in mind based on the systems theory), finding ashi points will have a greater effect and should be used when possible.

Upper limb	Lower limb	Torso
hand	foot	head
wrist	ankle	neck
forearm	lower leg	thorax to umbilicus
elbow	knee	umbilicus
upper arm	thigh	lower abdomen
shoulder	hip	genital area

Figure 13: Mirror correspondences

If the condition being treated does not involve pain or discomfort, then the area where the function is impaired should be considered as the affected area and the channels that pass over this area should be viewed as the affected channels. For instance in a patient suffering from erectile dysfunction the affected channels would be the Kidney foot shaoyin and the Liver foot jueyin, with the primary balancing channels being the Large Intestine hand yangming (balances Kidney shaoyin via system 5 and Liver jueyin via system 4) and the Sanjiao hand shaoyang (balances Kidney shaoyin via system 4 and the Liver jueyin via system 3). For an in-depth explanation of how to combine channels to treat complex clinical problems readers are recommended to study the balance method taught by Dr Richard Tan.

Case study 1

A 20-year-old female complained of reduced movement and pain in her upper left arm for over four years. There were no other symptoms and her pulse and tongue were normal. The patient was asked to demonstrate her range of movement and indicate where she felt the pain, which was in the bicep approximately three to seven cun proximal to the elbow. The affected channels were identified as the hand Large Intestine yangming and hand Lung taiyin channels.

The foot Liver jueyin channel was selected for treatment as it balances both the Lung (through system 6) and Large Intestine (through system 4) channels. Three needles were inserted into ashi points along the Liver channel in the upper right thigh (based on the mirror theory), after which full movement of the arm immediately returned and all pain was gone. The patient returned for a follow-up

treatment the following week and reported that range of movement was improved by 80 to 90 per cent. The same treatment was repeated over the next two sessions at one week intervals. After three treatments the condition had resolved completely.

Case study 2

A 71-year-old male complained of pain, swelling and a burning sensation along the lateral side of the left foot extending to the toe, which had been diagnosed as gout. The foot taiyang Bladder was identified as the channel affected.

Yuji LU-10 was chosen because the hand taiyin Lung channel balances the foot taiyang Bladder channel (systems 3 and 5), and the thenar eminence mirrors the affected area of the foot. The pain, swelling and burning sensation disappeared after one treatment, and the patient has not had a relapse of gout since (over two and a half years).

Case study 3

A 35-year-old female tailor had suffered from migraines for over 10 years. The pain was unilateral, stabbing and accompanied by nausea and vomiting. The pain would start in the occipital region and radiate to the temple, and she would feel a pulling sensation along the whole of her back. She would have a migraine at least once a week, which would stop her from working. The affected channels were identified as the foot shaoyang Gall Bladder and Foot taiyang Bladder on the left side.

The hand shaoyin Heart channel was chosen for treatment because it can balance both the Foot shaoyang Gall Bladder (systems 4 and 5) and the Foot taiyang Bladder (system 3) channels. The foot shaoyin Kidney channel was also included because the patient felt a pulling sensation along the foot taiyang Bladder channel, and the foot shaoyin Kidney channel balances the foot taiyang Bladder channel via systems 2 and 3. Needles were inserted into Shenmen HE-7 and Shaohai HE-3, and 10 needles were inserted along the foot Shaoyin channel from Dazhong KID-4 to Yingu KID-10 at even intervals on the right side (the lower leg corresponds to the area from the neck to the umbilicus where the pain was experienced).

After the first treatment the headaches were reduced to merely a general sensation of fuzziness in the head. After three more treatments all her symptoms had disappeared.

Conclusion

The visual representation of channel relationships has a practical use in understanding the various interactions between channels, and can assist practitioners in selecting the most effective channels to needle. Practitioners can also use these models to understand how a disease which starts in one channel can spread to other channels and thus better target the root of the disorder. Using this model in daily practice can both simplify diagnosis and enhance the effectiveness of treatment.

Jonathan Shubs is a Canadian born acupuncturist working in Switzerland. He has a private practice in Lausanne and teaches TCM at l'Académie des Arts Thérapeutiques in Geneva, Switzerland. The author would like to thank Bijan Doroudian and Jason Robertson for their insights and help in writing this article. Contact info@acupuncture-lausanne.ch or visit www.acupuncture-lausanne.ch.

[For more Information on Dr. Tan's Balance Method acupuncture which incorporates many of these systems please see www.tanwubian.com or www.drtanshow.com]

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