

# COMPARATIVE AND INTEGRATIVE MEDICINE. II.

## HEALTH GEOMETRY AND LIFE-SPIRAL

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### ABSTRACT

To compare different healing systems, a diagram is developed that combines essential features of Traditional Chinese Medicine (12 meridians, 5 or 6 elements), Ayurveda (3 doshas as basic principles) and homeopathy (3 miasms). In a first step, the meridians, elements and principles are arranged on a circle. In a more detailed version, not only the circle, but also the whole disc is considered ('health disc') Findings of different healing systems are used to draw the boundary between (good) health and disease on the disc, which results in a spiral, called the life-spiral. A point on the disc corresponds to a given state of health. The course of life is reflected in a twisting movement on the disc – depending on daytime, season and age. Furthermore, specific movements on the disc represent typical processes of falling ill and convalescence. Using the health disc, the statements of various healing systems can be compared and integrated.

### KEYWORDS

Integrative medicine; types; elements; Traditional Chinese Medicine; Ayurveda; homeopathy.

### INDO-TIBETAN AND CHINESE ELEMENTS

In the preceding paper (Kratky 2002a), we have investigated common features of several healing systems by arranging the Chinese elements and Indo-Tibetan principles of regulation on a circle. Now, we will complete the circle representation including also the Indian and Tibetan *elements*. They have the same names, only one of them, ether, having a different property. The 3 principles of regulation are called doshas and nyepas in the Indian and Tibetan cases, respectively. They mean essentially the same. To avoid confusion, we will stick to the Indian terminology of Ayurveda. The *doshas* (vata, pitta and kapha) are characterized by:

Vata (V): dry & cool; changeful. (1a)

Pitta (K): moist & hot; intensive. (1b)

Kapha (P): moist & cold. steady. (1c)

The names of the usual 5 Indo-Tibetan elements are

Water, fire, earth, air (wind) and ether (space). (2)

The distribution of the elements over the doshas is partly ambiguous. Table 1 shows the variations that can be found in the literature.

**Table 1.** Distribution of the Indo-Tibetan elements over the principles of regulation.

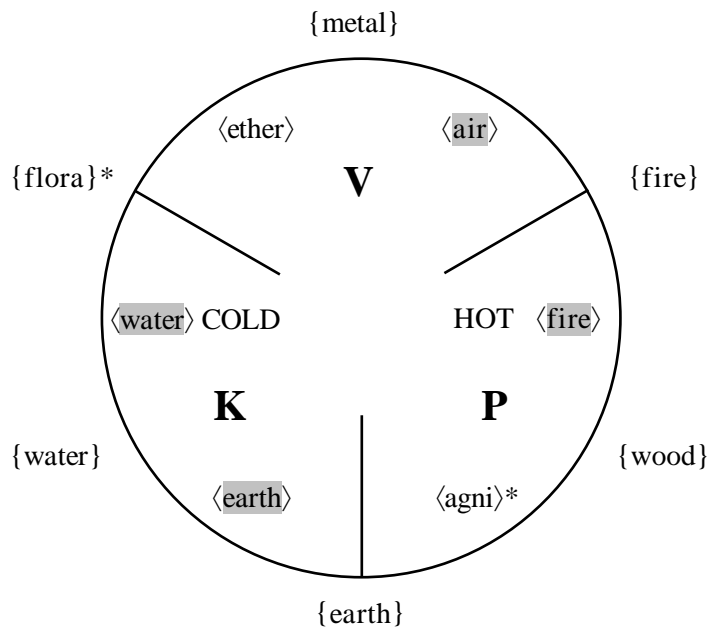
Source \ Doshas	Vata	Pitta	Kapha
Ayurveda <sup>a</sup>	air, ether	fire	earth, water
Ayurveda <sup>b</sup>	air, ether	fire, water	earth, water
Tibetan Medicine <sup>c</sup>	air	fire	earth, water

<sup>a</sup> Dash (1980, p.19)      <sup>b</sup> Chopra (2000, chap.I3)      <sup>c</sup> Qusar et al. (1997, p.7)

In the first Ayurvedan version, pitta consists only of one element, fire. In the second version, every dosha consists of two elements. Since there are 5 elements and 3 doshas, one element has to occur twice. This is water (in pitta as well in kapha). In Tibetan Medicine, ether does not belong to a specific dosha, since it is 'everywhere' (all pervading), see Qusar et al. (1997, p.7). Thus, four elements are remaining, which have the same names as the Greek ones. The relation between doshas and elements is quite explicit. Due to Qusar et al. (1997, p.32), the following statements are valid:

**Water** aggravates K and pacifies P.                      **Earth** aggravates K and pacifies V.                      (3a)

**Fire** aggravates P and pacifies K.                      **Air** aggravates V and pacifies K.                      (3b)



**Figure 1.** Circle representation of the doshas (vata V, pitta P, kapha K) together with the 6 <Indo-Tibetan> and {Chinese} elements written inside and outside the circle, respectively. The gray marking of 4 Indo-Tibetan elements and the exceptional role of the elements labeled with an asterisk are explained in the text.

One can see that *water* and *fire* act in an opposite way, the same being the case for *earth* and *air*. This reminds of analogous relations concerning the four Greek elements. Using the circle representation, polar Indo-Tibetan elements lie on opposite sides of the circle; see Figure 1. Their names are exhibited inside the circle, the 4 elements of (3a,b) being marked in a gray manner. Example for the

proposed locations: Due to (3a), water has to lie somewhere in K, opposite to the region of P and lateral with respect to V. This restricts the possible locations considerably, the displayed position being the most probable one. Bearing in mind the temperature statements in (1a-c), the axis COLD–HOT corresponds to the horizontal axis. For comparison, the location of the {Chinese} elements is taken from Kratky (2002a, Figure 1); their names can be found outside the circle. To avoid confusion, the ⟨Indo-Tibetan⟩ elements are characterized by using different brackets as indicated. Water, earth and fire appear in Ayurveda as well as in TCM. Their location is not identical for the two healing systems, but very close. As a consequence, e.g., water does not mean just the same in Indian and Chinese Medicine.

According to (3a&b), 4 Indo-Tibetan elements (gray) have been distributed over the circle. Two gaps remain, one in vata and one in pitta. To fill these gaps, we look at the two Ayurvedan rows in Table 1. In contrast to Tibetan Medicine, ether is now attached to vata. Thus, the gap in vata is filled by ether in a natural way; see Figure 1. A major problem arises in pitta. There is no usual 6th Ayurvedan element. Thus, in the second Ayurvedan version the gap is filled with *water*, which is already present in kapha. Due to the circle representation, this element would appear at two almost opposite places, which seems impossible. Why is water sometimes assumed to belong to pitta, too? Pitta, like kapha, is moist; see (1b&c). Fire, however, as the only element in pitta does not yield moisture. What we need, is a 'moist fire.' In fact, there are two Sanskrit names for fire: *tejas* and *agni*. *Tejas* is usually taken for the element fire, but *agni* (not interpreted as an element) is also attributed to pitta. It is the important 'fire of digestion' (Chopra 2000, chap.III3). In fact, digestion takes place in a moist milieu. Thus, we assume *agni* to fill the gap in Figure 1. For a preliminary version, see Kratky (1996, Figure 2).

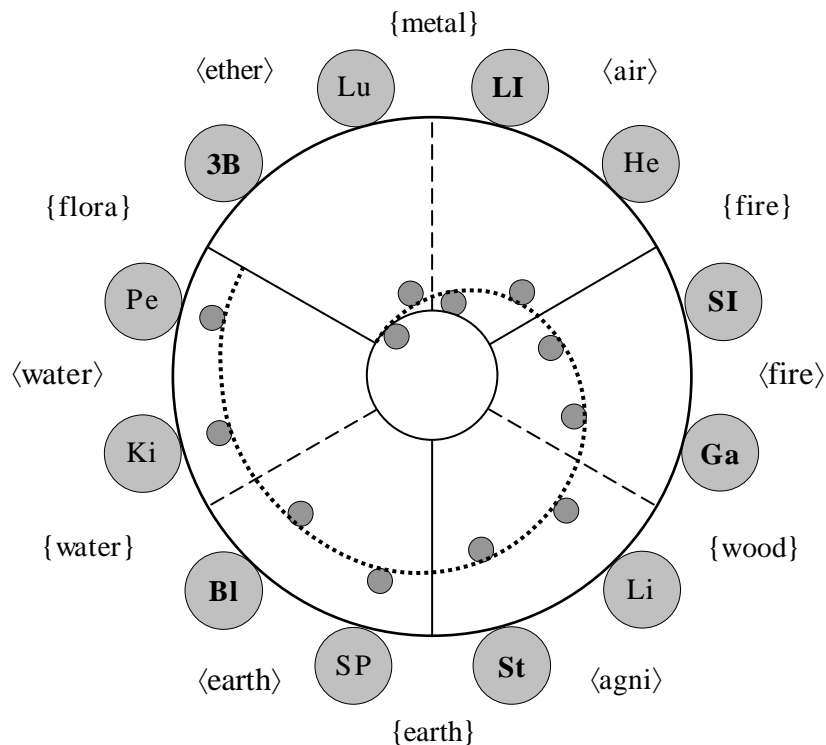
*Agni* is an exceptional element, as is flora in TCM, thus both are labeled with an asterisk in Figure 1. It is interesting to note that *agni* and flora lie almost on opposite sides of the circle. If we cancel both, the 5 usual elements of Ayurveda and TCM remain over. This seems to reflect the incomplete axis V1–V4 in both healing systems, the incompleteness appearing at opposite sides. The four Greek elements had the same names as the gray Ayurvedan elements, indicating the whole axis V1–V4 was missing. Including ether in the later Greek version did not change this fact, compare the analogous case in Tibetan Medicine. Ether was the invisible, but most important 5th essence (quintessence).

## DISC REPRESENTATION AND LIFE-SPIRAL

In Figure 2, the 6 ⟨Indo-Tibetan⟩ as well as the 6 {Chinese} elements are exhibited outside the circle, together with the 12 meridians. To each {Chinese} element, two meridians are associated with, a yin and a yang meridian. The latter are bold-faced in Figure 2 (abbreviations only) as well as in Table 2 (full names, too). In Figure 2, the *yin* meridian is always on the left side of the corresponding *yang* meridian. This is due to the analogous relation of the pair *cold* – *hot*; see Figure 1. Every {Chinese} element is drawn between its 2 meridians. Then, the corresponding associations of ⟨Indo-Tibetan⟩ elements come out automatically. For instance, it turns out that ⟨ether⟩ lung (Lu) and the triple burner (3B) belong to ⟨ether⟩. Remark: For a fundamental understanding of TCM, see Maciocia (1993).

The circle can be divided into 6 arcs (of 60° each) centered at the 6 Indian or Chinese elements. The first division is typical for Ayurveda, the second one for Tibetan Medicine. In both cases, the 6 arcs correspond to 6 types of people. Example: The Ayurvedan PV- type around ⟨fire⟩ is characterized by the properties of pitta and vata, with a larger contribution of pitta. This is reflected by the location of ⟨fire⟩ on the circle: in pitta, but in the direction towards vata. Accordingly, the type around ⟨air⟩ is VP. The Tibetan types split up into two groups: pure dosha types, e.g., kapha around {water}, and transition types between two doshas, e.g., around {earth} between pitta and kapha. As to the properties of the doshas, cf. Chopra (2000, part I) and Kratky (2002a, Table 3). In both healing systems, however, there is a 7th type: the balanced type with (about) equal contributions from all 3 doshas. This cannot be displayed on the circle; the natural place would be at the center of the circle. In

addition to that drawback, the circle representation has a more general disadvantage: The position of a point indicates the relative shares of the two leading doshas, but cannot give information about the small share of the third one. This drawback can be overcome by generalizing the diagram to the disc representation. Considering the whole disc in Figure 1 means, e.g., the following: The bottom point {earth} at the border of the disc characterizes equal shares of pitta and kapha without any contribution of vata. When we go upwards approaching the center, the share of vata increases until equal share of all three doshas at the center itself. For a detailed description; see Kratky (2000, chap.2.3; 2002b).



**Figure 2.** Disc representation of the 7 Ayurvedan types and the Chinese meridians. The names of 12 TCM- meridians, the 6 {Indo-Tibetan} and 6 {Chinese} elements are written outside the circle. The true positions ● of the meridians are displayed along the life-spiral (dotted curve within the disc).

**Table 2.** The 12 meridians: abbreviations (see figure 2) and full names. Succession: yin before **yang**.

{water}– {fire} :	Ki: kidney	<b>Bl</b> : bladder	–	He: heart	<b>SI</b> : small intestine
{earth} – {metal}:	SP: spleen-pancreas	<b>St</b> : stomach	–	Lu: lung	<b>LI</b> : large intestine
{wood}– {flora}:	Li: liver	<b>Ga</b> : gall-bladder	–	Pe: pericardium	<b>3B</b> : triple burner

Figure 2 shows the disc representation with the areas of the 7 Ayurvedan types; the radius of the central balanced type is assumed to be 1/4 of the total disc radius. Now the question arises: Where to put the elements and meridians in the interior of the disc? The angle should remain the same as for the circle representation, but what about the appropriate distance from the center? The answer is given by the life-spiral exhibited in Figure 2. This dotted curve is to be interpreted semi-quantitatively; the exact location is yet to be determined. In the following, the arguments for the spiral will be given. First, we come back to the discrepancy concerning the location of {ether} with respect to the doshas,

Table 1. Due to Ayurveda, ⟨ether⟩ lies somewhere in vata, due to Tibetan Medicine, it is everywhere. The last claim can be translated into the (nearly) equal share of all 3 doshas, which is the case very close to the center. The above discrepancy can be removed when ⟨ether⟩ just lies at the boundary between the balanced type and the VK- type, the corresponding angle being known from Figure 1. The other elements lie outside; there is no further dispute between Ayurveda and Tibetan Medicine.

The next argument comes from TCM. {Metal} is associated with the skin, the other elements (in clockwise succession) go deeper and deeper into the body, e.g., {wood}: muscles, {water}: bones. In the disc representation, {metal} is adjacent to or overlapping with ⟨ether⟩, therefore it is deep within the disc. Thus, one may argue that the inner/ outer relations within the body and on the disc are reversed. In that case, the curve of the location of the TCM- elements is an *outward* spiral when proceeding clockwise. This hypothesis is supported when considering diseases; see below. Now, we come to another point. The inside/ outside conversion has a consequence for the yin/ yang meridians of the {Chinese} elements. They are in an *inner/ outer* relation concerning their physical location. Thus, they have an *outer/ inner* relation in the disc representation. This is the reason for their location in Figure 2. It automatically comes out that the triple burner 3B, the yang meridian of {flora}, is the only meridian inside the balanced type. This fits the name 3B quite well: It means connection to all three parts of the body, which may be just another expression for integrating all 3 doshas (which are not known in TCM). By the way, the location left/ right of associated yin/ yang meridians on the circle is preserved when going to the spiral.

The spiral is thought to be the typical location when a human being is pretty healthy, not perfectly healthy and not really diseased – just the usual way for many of us. This helps us to re-interpret the average course of life from birth to death (taking into account many people). In Kratky (2002a, Figure 1), this course was described in the circle representation: starting at {flora}, going counter-clockwise and ending in {flora} again. Using the disc representation, we can be more detailed. The result is the life-spiral, its name coming from this course of life. Now, birth and death are not identical any more. The angle of {flora} is the same from both sides, but the distances from the disc center are quite different. Just at flora, the spiral has its discontinuity. For a single person, the spiral is shifted in the direction of the basic type (temperament) characterizing this person. Moreover, there are short-term deviations from the long-time spiral according to daytime and season. Thus, the detailed course of life corresponds to a twisting motion of a point on the disc.

In addition to the above influences, the motion on the disc is also affected by the state of health, thence the name *health disc*. When we proceed at a given angle from the life spiral towards the border, the doshas (and humors) are more and more out of balance. First, slight diseases appear. Then, they become more severe. At the border, the contribution of one dosha is missing at all. On the other hand, proceeding from any point on the life-spiral to the center means improving the balance. Thus, the regions inside and outside the spiral refer to health and disease, respectively, the spiral being the boundary. Due to the form of the spiral, there is much space outside in V, less in P, and least in K. This reflects the Ayurvedan observation that most diseases occur in vata, least in kapha. The opposite is true concerning the severity of diseases: In vata, outside the spiral there is a long way to the border. In kapha, the way is short, and severe diseases are expected to appear quite close to the spiral. This reflects knowledge of Ayurveda, but also of homeopathy. Vata is so changeful that a disease does not fix itself in a specific organ. In homeopathy, diseases of the corresponding miasma *psora* (Kratky 2002a, Figure 1) are often found to be only *functional*, not *organic*. To sum up, frequency and severity of diseases are anti-correlated.

Remark: In TCM, the yin meridians are more important than the yang meridians, especially when considering the process of falling ill. This may be interpreted in terms of the healing disc, Figure 2. The yin and yang meridians are outside and inside the life-spiral, respectively. Thus the yin meridians are just in the critical region which is the starting-point of falling ill.

In several healing systems, it is well known that a disease is generally proceeding from outside to inside (see, e.g., Hering's law in homeopathy). For a given angle, this just corresponds to our above statements concerning the disc representation. However, the usual dynamics of diseases is more complicated, the angle being no longer fixed. In a first approximation, a clockwise motion occurs that is starting in vata. If one proceeds outside the spiral, one comes perpetually closer to the border. This means that a disease starting in vata becomes more and more severe when going on to pitta and then kapha. The healing process is reversed (see again Hering's law), which means a counter-clockwise movement on the disc. In fact, this is the essence of several claims found in various healing systems. For example, *vata* is the typical starting point to get out of balance (Chopra 2000, 14). The same is claimed for *psora* in homeopathy. It is interesting to note that parturition can also be described in terms of the miasms (van der Zee 2001). In our terminology, the process of birth, as experienced by the child, can be interpreted as the counter-clockwise motion from flora to flora. It starts with the 'expulsion from paradise', which means going away from the symbiotic, balanced state (balanced type, meridian 3E, view V4). On the other hand, it is sometimes reported that when dying the whole life uncoils quickly like in a film (in reversed order?). Thus, it seems that the life-spiral is useful when describing the whole life as well as important parts of it (birth and death).

Many questions are still open: What is the accurate location of the life-spiral? How does the location of the meridians and elements shift on the disc depending on various diseases? What are the detailed movements of the state of health on the disc for different courses of disease? How can the disc model be generalized to a 3-dimensional one? Some of the questions will be answered in Kratky (2002b). To sum up, the health disc (including the life-spiral) seems to be a fruitful model in order to compare and integrate various healing systems. Results of different sources can be combined; information can be shifted from one healing system to another one. With further developed health geometry, it will be possible to exchange considerable knowledge between various healing systems.

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