

Source-Oriented Transmission of Chinese Medicine

中医的来源导向传播

Nigel Wiseman, PhD.

School of Traditional Chinese Medicine, Chang Gung University

中醫走上世界

About the Speaker

Nigel Wiseman, born in the UK in 1954, holds a Bachelor of Arts in German and Spanish (1976); PhD in Complementary Health Studies (2001). He has lived in Taiwan since 1981, where he has been engaged in translation and compilation of Chinese medical (TCM) literature.

He worked at China Medical University, Taichung, from 1991 to 2000 teaching biomedical and Chinese medical English. Since then he has been lecturer at Chang Gung University, teaching the same subjects, as well as medicinal cookery. He also teaches medical translation at Fugen Catholic University, Taiwan.

He has been temporary advisor to numerous WHO meetings on standardization of Chinese medical terminology and has been a visiting professor at Shanghai University of Traditional Chinese Medicine.

His works cover theory of Chinese medical

translation; modern TCM texts and classics; Chinese medical dictionaries; Chinese medical English textbooks; grammars of Chinese and English.

Representative works:

- *Fundamentals of Chinese Medicine*;
- *A Practical Dictionary of Chinese Medicine*;
- *Shāng Hán Lùn: On Cold Damage*;
- *Jīn Guì Yào Lùè: Essential Prescriptions of the Golden Cabinet*;
- *Online Dictionary of Chinese Medicine* (<http://www.paradigm-pubs.com/TermList/>). His papers are available at (<http://www.paradigm-pubs.com/WisemanWork>).

Current project: Chinese Medicine and the Ideas that Shaped it, due to be published in 2021.

Overview

Introduction

- Problems of Cross-Cultural Transmission
- Inappropriate Translation Practices
- Limited Selection of Source Material
- Paucity of Background Information
- Remedies

Part 1: Source-Oriented Translation

- Source-Oriented Translation Principles
 - Principle 1: Everyday words translated with natural equivalents
 - Principle 2: Technical terms literally translated
 - Principle 3: Untranslatables transliterated
 - Borderline cases and exceptions
 - SO translation takes the character (monosyllable) as a primary unit

- Minimal number of translations for each character
- Preserving metaphor
- Preserving conception distinctions
- Target-Oriented Translation?
 - Domestication through the use of colloquial expressions
 - Domestication through the use of biomedical terminology

Part 2: Supplementary Material

- Cognitive Bases of Chinese Medicine (Analysis vs Analogy): A key target for Supplementary Information
- Analysis vs Analogy
- Example of Theories About the Liver
- The Seven Affects (七情 qī qíng)
- Conclusion

Introduction

The Problems of Cross-Cultural Transmission

- Success in the cross-cultural transmission of a body of knowledge rests on many factors, including
 - translation strategy
 - selection of material to be translated, and
 - background information.
- The westward transmission of Chinese medicine to those wishing to practice it, has in my view, been relatively unsuccessful because of failings on all three points, namely because of
 - prevalence of target-oriented translation;
 - a tendency to avoid complexity in the selection of material;
 - paucity of background information in Chinese medical school curricula.
- These failings can be seen in most English-language textbooks produced by Chinese and Western writers alike.

Inappropriate Translation Practices

- How to translate the terminology of Chinese medicine is the biggest source of contention in the transmission of Chinese medicine.
- Translation strategies range between two poles:
 - *source-oriented translation* (SO, 来源导向翻译, also called *foreignizing translation* 归化翻译), designed to achieve complete replication of cultural and technical information at the expense of readability, and
 - *target-oriented translation* (SO, 目标导向翻译 also called *domesticating translation* 异化翻译), designed for ease of reading at the expense of cultural and technical detail.
- In the translation of specialist bodies of knowledge, source-oriented approaches are the norm, at least in the area of terminology.
- Chinese medical translation is characterized by a widespread tendency to apply target-oriented translation in the form of biomedical and colloquial terms.

Limited Selection of Material

- Chinese medicine has a huge library of literature.
- Only a small part has been translated.
- In the transmission process, emphasis has been placed on acupuncture to the neglect of medicinal therapy.
- Emphasis has been placed on textbook material to the neglect of traditional literature.
- Within textbook creation, ideas perceived not to appeal to the modern mind-set have been removed or deemphasized.
 - A notable example is the “empire-paradigm” metaphors describing the internal organs, e.g., the heart as a sovereign, the liver as army general, the spleen as the official in charge of the granaries, etc., which encapsulate features of the organs.

Paucity of Background Information

- Western students of Chinese medicine, unlike their Chinese counterparts,
 - have little knowledge of Chinese general and medical history;
 - have little understanding of Chinese philosophical and religious thought;
 - have little or no knowledge of the Chinese language; and
 - largely do not have the benefit of teachers who have linguistic access to and are versed in primary Chinese-language sources.
- Hence Westerners need more background information than they have been given. In fact, they receive far less background information than Chinese students.
- Background information that supplements text translation aids transmission of knowledge and reduces the need for paraphrase and in-text explanations.
- Note that dictionaries explaining technical terms are an example of background information. However, dictionaries require standard terminology to be of any use.
- In debates on the transmission of Chinese Western, translation (and especially term translation) has been the focus. Insufficient emphasis has been placed on background information.

Remedies

- This presentation argues that a **stringent source-oriented approach alone can ensure the successful transmission of Chinese medicine.**
- Although this approach is more challenging for the target-language reader, the difficulties can be compensated by additional definitions, footnotes, glossaries, and supplementary material to help Westerners bridge the cultural gap.
- Of particular importance is supplementary material that helps beginning students understand the cognitive bases of Chinese medicine. This lecture gives the examples how knowledge of the internal organs arose and their specific connections with emotions.

Part 1: Source-Oriented Translation

Term Translation Theory

- Translation and terminology have developed as distinct branches of linguistics.
- Terminologists have little to say about translation of terms.
- Term translation is considered a new act of term creation in another language.
- Terminologist have little to say about term creation beyond the principle that “the term should reflect the concept.”

- Since the concept is described in the definition of a term, we can also say that the term chosen should reflect the definition.
- Terminologists talk about good terms and bad terms according to how well they reflect the concept.
- The term “bottle opener” is a good term is considered a good term because it reflects the definition (a device for opening bottles).
- The term “Fallopian tube” is considered by many to be a bad term because the first word refers to the physician claimed to have discovered it. For this reason, “uterine tube” is now preferred, even though fallopian tube lives on because of its familiarity.

- However, terminologists surveying new terminologies in old subjects point out that “loan translation” (calque 仿造词, = literal translation 直译) is the most common way terms are created in the receiving language.
- An example of this is 心电图 as the Chinese equivalent of “electrocardiogram.”
- In general, the Chinese terminology of biomedicine is by and large loan translation.
- The reason for is that biomedical terms are usually well-motivated and bilinguals creating terms in the target language (TL 目标语) are naturally influenced by the source-language (SL 來源語) term.

- Terminologists also recognize that another commonly used way of creating terms in a second language is to simply borrow the original term. 淋巴 is an example of a loan term in Chinese (for lymph).
- Loans tend to appear when speakers of the second language are familiar with the original language and can pronounce the words easily. Hence, loans between English and Chinese are uncommon).
- Loan translations and loans are thus the methods most commonly used in specialist fields.
- Hence, one would expect that it would be standard practice in Chinese medicine.

Source-Oriented / Target-Oriented Translation

- The act of translation involves recreating what is said in the source language term (SL, 来源语) in the target language (TL, 目标语) .
- Methods and styles of translation vary considerably.
- However, they can all be seen to fall between two poles:
 - *source-oriented translation* (SO, 来源导向翻译) and
 - *target-oriented translation* (TO, 目标导向翻译)

- Source-oriented translation (SO, 来源导向翻译) is close translation that conveys as much of the detail and nuance of the source-language text.
- Target-oriented translation (SO, 目标导向翻译) aims at ease of comprehension, sometimes sacrificing some of the detail and nuance of source-language text.
- The two approaches are not mutually exclusive. Most translations are a blend of both. Different aspects of a text may be translated in different ways.

Source-Oriented Term Translation

- SO term translation holds by the following principles:
 1. Everyday expressions used as terms are translated with their natural equivalents (直译).
 2. Technical are translated literally (仿造).
 3. Untranslatables are transliterated (音译).
- Source-oriented translation preserves all the detail that is contained in the source language terminology.
- It means creating look-alike terms or borrowing terms.
- This conforms with the general practice of creating terms in target languages that terminological experts observe, as previously stated.

Target-Oriented Term Translation

- By contrast, target-oriented translation (TO, 目标导向翻译) emphasizes ease of comprehension for the target reader.
- In Chinese medicine, TO translation explain the tendency to use
 - biomedical terms and
 - colloquial terms.
- Although most translators broadly use SO methods to translate most of the terminology, disease names and certain symptom names are often represented with biomedical terms or rough colloquial terms.

- Target-oriented translation of terms leads to inaccurate translations such as when
 - 痺 *bì* is translated as “joint pain,” or
 - 淋 *lín* is translated as “painful urination.”
- It leads to conflation. Example: transforming dampness (化湿 *huà shī*), drying dampness (燥湿 *zào shī*), and disinhibiting dampness (利湿 *lì shī*).
 - The distinctions are easily lost by using a generic verb such “eliminating.”
 - Using paraphrase, these concepts can be explained as eliminating upper-burner, middle-burner, and lower-burner dampness, respectively. But that entails the loss of neat labels.
- Perhaps most importantly, it leads to liberal use biomedical concepts. Example: 风火炎 *fēng huǒ yǎn*
 - Source-oriented translation: wind-fire eye (redness of the eyes caused by wind and fire)
 - Target-oriented: acute conjunctivitis

Foreignizing / Domesticating Translation

- SO and TO correspond to Venuti's concepts of *foreignizing* (异化) and *domesticating* (归化) translation in the realm of literature.
- Venuti claims that domesticating (target-oriented) translation diminishes the value of the source culture because it sacrifices cultural detail for readability.
- Venuti's concerns are very much an issue in the transmission of Chinese medicine, since there is a strong tendency in translation to press it into a biomedical mold.
- While translators mostly agree on a source-oriented approach to the translation of most Chinese medical terms, many hold that wherever biomedicine has a corresponding concept, the biomedical term should be used. This happens mostly in realm of diseases.

- Source-oriented translation means taking the reader into the source world.
- When the world of the TL community is far removed from that of the source community, the provision of supplementary background information can help bridge the gap.
- The basic theories of Chinese medicine developed 2,000 or more years ago is a land distant from the West. Hence the cultural gap is quite large. (In fact, it is large even for Chinese people).
- This poses the need to provide non-Chinese recipients with supplementary information. This is the subject of Part 2 of this presentation.

Principle 1: Everyday words translated by natural equivalents

- 头 ⇨ head
- 颈 ⇨ neck
- 发 ⇨ hair
- 肝 ⇨ liver
- 心 ⇨ heart
- 肺 ⇨ lung
- 膀胱 ⇨ bladder
- 齿 ⇨ tooth
- 胸 ⇨ chest
- 腹 ⇨ abdomen, belly
- 背 ⇨ back
- 舌 ⇨ tongue
- 膝 ⇨ knee
- 爪甲 ⇨ nail
- 手 ⇨ hand
- 脚 ⇨ foot
- 脐 ⇨ umbilicus
- 热 ⇨ heat
- 风 ⇨ wind
- 寒 ⇨ cold
- 血 ⇨ blood
- 乳 ⇨ breast
- 汗 ⇨ sweat
- 尿 ⇨ urine
- 大便 ⇨ stool
- 麻疹 ⇨ measles

Principle 2: Technical terms literally translated

- 金木水火土 ⇨ metal, wood, water, fire, earth
- 相火 ⇨ ministerial fire
- 君火 ⇨ sovereign fire
- 三焦 ⇨ triple burner
- 精 ⇨ essence
- 水谷 ⇨ grain and water
- 实热 ⇨ repletion heat
- 寒湿 ⇨ cold-damp
- 肺气宣散 ⇨ lung qì diffuses
- 肝主疏泄 ⇨ liver governs free coursing
- 风寒束表 → ⇨ wind-cold fettering the exterior
- 积聚 ⇨ accumulations and gatherings
- 足太阳膀胱经 ⇨ foot greater yáng bladder channel
- 督脉 ⇨ governing vessel
- 风火眼 ⇨ wind-fire eye
- 狐惑(⇨ 蜮) ⇨ fox-creeper
- 痿 (⇨ 萎) ⇨ wilting
- 疔 (⇨ 丁) ⇨ clove sore

Principle 3: Untranslatables Transliterated

- 气 ⇒ qì
- 阴阳 ⇒ yīn-yáng
- 蛊 ⇒ gǔ
- 赖 ⇒ lài (or repudiation)

Exceptions

- 证 → pattern
- 穴 → acupuncture point, acupoint
- 瘀 → stasis (瘀 ⇌ 淤, 沉淀)
- Acupoint names
 - ST-1 承泣 *chéng qì*, Tear Container
 - ST-2 四白 *sì bái*, Four Whites
 - ST-3 巨髎 *jù liáo*, Great Bone-Hole
 - ST-4 地仓 *dì cāng*, Earth Granary

Borderline Cases

- 革脈 drum-skin pulse
- 洪脈 surging pulse (flooding pulse?)
- 增水行舟 increase water to move the boat (increase water to refloat the grounded boat?)

SO Translation Takes the Character (Monosyllable) as a Primary Unit

- In modern Chinese, the equivalent of an English “word” can be a single character or multiple characters.
- In earlier stages of Chinese, there were more monosyllabic words.
- Chinese medical terminology to center around one character for one idea.
- 清热解毒, for example, is a term composed of four words.

SO Translation Takes the Character (Monosyllable) as a Primary Unit

- In SO translation of many (but not all) Chinese medical terms, we translate “word for character” (with additional grammatical words):
 - 肾气不固 ⇒ Insecurity of kidney qi
 - 肝火上炎 ⇒ liver fire flaming upward
 - 清热解毒 ⇒ clear heat and resolve toxin
 - 养心安神 ⇒ nourish the heart and quiet the spirit
 - 脘腹胀痛 ⇒ distension and pain (distending pain) in the stomach duct and abdomen.

SO Translation Takes the Character (Monosyllable) as a Primary Unit

- Some characters are dropped in translation because they are synonyms needed for symmetry (对仗).
- 肾阴虚亏 includes two characters 虚亏, which only represent one idea. “Noun-noun adjective-adjective” is considered symmetrical.
- We translate this as “depletion of kidney yīn”. We translation 亏 but not the 虚, because 亏 is more specific than 虚.

Minimal Number of Translations for Each Character

- One terminological principle is that each concept should *ideally* be represented by one term.
- When a Chinese character is used with more than one meaning, it can be rendered with different English equivalents.
 - 滑脉 ⇒ slippery pulse (tactile quality)
 - 苔滑 ⇒ glossy tongue fur (visual quality)
 - 滑精 ⇒ seminal efflux (slipping out of the body uncontrollably)

One to Many

■ 经

- menstruation (月经)
- channel (经络)

■ 缓

- moderate (pulse 脉缓)
- relax (tension 缓急)
- slack (sinews, 筋缓)
- mild (supplementation 缓补)

■ 微

- faint (pulse, 脉微);
- slightly (cold 微寒)

■ 胞

- bladder
- uterus (女子胞)

■ 脉

- Vessel
- pulse

■ 疾

- racing (pulse 疾脉)
- disease (疾病)

Minimal Number of Translations for Each Character

- Some translators adopt a variety of different translations for a single character, even when this is not necessary.
- For example, they might translate 補 as “tonify,” “nourish,” “invigorate” according to context.
- This is not necessary.

Minimal Number of Translations for Each Character

- SO translation recognizes that 补 is a generic term, which needs a generic equivalent in English.
 - 补 ⇒ supplement (yīn, yáng, qì, blood)
- 补 has many specific synonyms: 养、滋、益、助、壮、温, each expressing different nuances, all of which can be expressed in English.
 - 养 ⇒ nourish (blood, yīn)
 - 滋 ⇒ enrich (yīn)
 - 益 ⇒ boost (qì)
 - 助 ⇒ assist (yáng)
 - 壮 ⇒ invigorate (yáng)
 - 温 ⇒ warm (yáng)

Accurate equivalents reduce the need for different translations

- 脉实 ⇨ replete pulse
- 实证 ⇨ repletion pattern
- 金实不鸣 ⇨ replete metal failing to sound
- Try translating these terms with “excess”!

Preserving Metaphor

- Chinese medicine is rich in metaphor.
- SO translation can preserve the metaphor.
 - 母子 ⇒ mother and child
 - 标本 ⇒ tip and root
 - 金实不鸣 ⇒ replete metal failing to sound
 - 增水行舟 ⇒ increase water to move the boat/refloat the grounded boat

Preserving Conceptual Distinctions

- Chinese medical discourse is characterized by numerous terms that seem to have close synonyms that are easily conflated in translation when a target-oriented approach is applied.
- However, when a source-oriented approach is applied, it is advisable to preserve conceptual distinctions.
- Preserving distinctions is important when Chinese texts and dictionaries suggest differences in meaning.
- Note that most of the following examples are symptoms. Retaining Chinese distinctions may enhance diagnostic proficiency.

Preserving Conceptual Distinctions: Saliva?

Chinese	English
涎 <i>xián</i>	Drool: thin saliva, associated with the spleen. It can leak from the mouth during sleep.
唾 <i>tuò</i>	Spittle: thick saliva, associated with the kidney. It is frothy, and that which can be spat out.

Preserving Conceptual Distinctions

Chinese	English
思 <i>sī</i>	Thought: 1) cogitation. 2) Excessive tendency toward cogitation (mind of the spleen).
意 <i>yì</i>	Ideation: The faculty responsible for creating ideas (thoughts, opinions, intentions), associated with the spleen.

Preserving Conceptual Distinctions

Chinese	English
神 <i>shén</i>	Spirit: An entity, associated with the heart, that represents the power of consciousness and mental composure. “Disquieted heart spirit” is marked by heart vexation, insomnia, profuse dreaming, heart palpitations, and forgetfulness.
志 <i>zhì</i>	Mind: 1. Will. 2. Memory
情 <i>qíng</i>	Affect: Emotion or mind-frame.

Preserving Conceptual Distinctions

Chinese	English
气滞 <i>qì zhì</i>	Qì stagnation: general term for qì that fails to move and operate as it should.
气郁 <i>qì yù</i>	Qì depression: Qì stagnation especially when due to depression and anger.
气机不利 <i>qì jī bù lì</i>	Inhibited qì dynamic: Usually mild qì stagnation.

Preserving Conceptual Distinctions

Chinese	English
血瘀 <i>xuè yū</i>	Blood stasis: Non-movement of blood.
血滯 <i>xuè zhì</i>	Blood stagnation: Mild blood stasis (as treated by 四物湯)

Preserving Conceptual Distinctions

Chinese	English
面色晄白 <i>miàn sè huǎng bái</i>	Bright white complexion: Very white, often with puffy swelling of the face. Due to yáng qì vacuity (or yáng vacuity water flood).
面色淡白 <i>miàn sè dàn bái</i>	Pale white complexion: Lack of normal color in the face. Usually due to blood vacuity.
面色苍白 <i>miàn sè cāng bāi</i>	Somber white complexion: White with a tinge of green-blue. Observed in fulminant desertion of yáng qì or severe internal cold.

Preserving Conceptual Distinctions: Chill?

Chinese	English
恶寒 <i>wù hán</i>	Aversion to cold: Sensation of cold unrelieved by heat or additional clothing. A sign of external evils in the exterior, especially cold.
恶风 <i>wù fēng</i>	Aversion to wind: Mild aversion to cold felt on exposure to wind or drafts.
畏寒 <i>wèi hán</i> 怕冷 <i>pà lěng</i>	Fear of cold: Chronic sensation of cold that is relieved by heat or additional clothing. Attributed to yáng vacuity.
形寒 <i>xíng hán</i>	Physical cold: Sensations of cold and visible signs of cold. Cause: yáng vacuity.
憎寒 <i>zēng hán</i>	Abhorrence of cold: Violent aversion to cold.

Preserving Conceptual Distinctions

Chinese	English
潮热 <i>cháo rè</i>	Tidal heat effusion (fever): Fever or heat sensation felt at specific times of the day. Usually denotes next.
午后潮热 <i>wǔ hòu cháo rè</i>	Postmeridian tidal heat effusion (fever): Tidal heat effusion felt sometime after midday, often during nighttime (yīn vacuity).
日晡潮热 <i>rì bū cháo rè</i>	Late afternoon tidal heat effusion (fever): Tidal heat effusion at 3-5 pm. Associated with yáng brightness disease.

Preserving Conceptual Distinctions: Dyspnea?

Chinese	English
哮 <i>xiào</i>	Wheezing: Phlegm rale. A sound that often accompanies panting. Wheezing and panting is equivalent to asthma.
喘 <i>chuǎn</i>	Panting: Severe breathing difficulty, with discontinuity of breathing (inability to catch one's breath), and in the severest cases raised shoulders and flaring of the nostrils. Causes: heat, phlegm-heat, phlegm-rheum, wind-cold; lung-kidney depletion (kidney failing to absorb qì).
气短 <i>qì duǎn</i>	Shortness of breath: Breathing difficulty with discontinuity. Causes: severe qì vacuity; phlegm-rheum, qì stagnation, blood stasis.
少气 <i>shǎo qì</i>	Scantness of breath: Mild breathing difficulty, but without discontinuity.

Preserving Conceptual Distinctions: Palpitation

Chinese	English
心悸 <i>xīn jì</i>	Heart palpitation: Throbbing of the heart.
驚悸 <i>jīng jì</i>	Fright palpitation: Heart palpitations brought on by emotional stimulus (shock, fright, emotional stimulus).
怔忡 <i>zhēng chōng</i>	Fearful throbbing: Severe heart palpitations occurring spontaneously and causing distress.

Preserving Conceptual Distinctions: Poor appetite?

Chinese	English
食少 <i>shí shǎo</i>	Reduced eating: Eating less than normal.
纳呆 <i>nà dāi</i>	Torpid intake: Eating less than normal with indigestion. Associated particularly with dampness.
食欲不振 <i>shí yù bù zhèn</i>	Poor appetite: Reduced desire to eat.
不思饮食 <i>bù sī yǐn shí</i>	No thought of food and drink: Reduced desire to eat.
纳谷不香 <i>nà gǔ bù xiāng</i>	No pleasure in eating: Literally “food to be taken in is not fragrant”, the feeling that food is not appetizing.

Preserving Conceptual Distinctions

Chinese	English
泛酸 <i>fàn suān</i>	Acid upflow: Welling up of acid fluid into the throat. (Mild)
吞酸 <i>tūn suān</i>	Acid swallowing: Welling up of acid fluid into the throat that is swallowed before it can be ejected. (More severe)
吐酸 <i>tù suān</i>	Vomiting of acid: Ejection from the stomach of acid matter. (Most severe).

Preserving Conceptual Distinctions

Chinese	English
胀 <i>zhàng</i>	Distention: Sensation of bloating with palpable or even visible expansion.
满 <i>mǎn</i>	Fullness: Sensation of bloating, possibly palpable, but not visible.
痞 <i>pǐ</i>	Glomus: Localized distention or feeling of blockage.
闷 <i>mèn</i>	Oppression: The feeling of tightness or pressure (in the chest or stomach duct).

Preserving Conceptual Distinctions: Spermatorrhea?

Chinese	English
遗精 <i>yí jīng</i>	Seminal emission: Involuntary loss of semen during sleep. Distinctions are made between emission with or without dreaming. Due to various kidney and heart problems. There is usually dreaming when the heart is affected.
滑精 <i>huá jīng</i>	Seminal efflux: Involuntary loss of semen at any time, when asleep or awake, without dreaming. Mostly due to insecurity of kidney qì.

Preserving Conceptual Distinctions

Chinese	English
肢冷 <i>zhī lěng</i>	Cold limbs: general term for cold in the extremities.
四肢不温 <i>sì zhī bù wēn</i>	Lack of warmth in the limbs: mild form of cold limbs.
四肢逆冷 <i>sì zhī nì lěng</i>	Counterflow cold of the limbs: severe cold in the extremities reaching to the knees and elbows.
四肢厥冷 <i>sì zhī jué lěng</i>	Reversal cold of the limbs: same as counterflow cold of the limbs.

Preserving Conceptual Distinctions

Chinese	English
瘈瘲 <i>chì zòng</i>	Tugging and slackening: Alternating contraction and relaxation. Convulsions.
筋脉拘挛 <i>jīn mài jū luán</i>	Hypertonicity of the sinews: Persistent tension in the limbs.
手足蠕动 <i>shǒu zú rú dòng</i>	Wriggling of the extremities: Slight movement of the extremities.
筋惕肉瞬 <i>jīn tì ròu shùn</i>	Jerking sinews and twitching flesh: Movement of the flesh without necessarily causing a whole body part to move. Notably includes “tics”.

Preserving Conceptual Distinctions: Oliguria?

Chinese	English
尿赤 <i>niào chì</i>	Reddish urine: urine that is a dark tea color
尿黄 <i>niào huáng</i>	Yellow urine: urine that is yellower than normal.
小便短赤 <i>xiǎo biàn duǎn chì</i>	Short voidings of reddish urine: reddish urine that comes in voidings that are of short duration.

Preserving Conceptual Distinctions

Chinese	English
脈虛 <i>mài xū</i>	Vacuous pulse: a pulse that is forceless, soft, usually large and that feels empty.
脈弱 <i>mài ruò</i>	Weak pulse: sunken and forceless.
脈無力 <i>mài wú lì</i>	Forceless pulse: a pulse that has no strength.

Preserving Conceptual Distinctions: Metrorrhagia?

Chinese	English
崩 <i>bēng</i>	Flooding: profuse bleeding via the vagina unassociated with menstruation. Chinese lit., “landslide, heavy fall.”
漏 <i>lòu</i>	Spotting: mild bleeding via the vagina. Chinese lit., “leaking.”

Preserving Conceptual Distinctions

Chinese	English
癥 <i>zhēng</i>	Concretion: Abdominal mass of definite form and fixed location, with pain of fixed location (lower burner).
瘕 <i>jiǎ</i>	Conglomeration: Abdominal mass of indefinite form and unfixed location (lower burner).
积 <i>jī</i>	Accumulation: Abdominal mass of definite form and fixed location, with pain of fixed location (center burner).
聚 <i>jù</i>	Gathering: Abdominal mass of indefinite form and unfixed location (center burner).

Preserving Conceptual Distinctions

Chinese	English
不足 <i>bù zú</i>	Insufficiency: Lack of a substance.
虚 <i>xū</i>	Vacuity: Insufficiency, perceived holistically from the point of view of the whole body.
不及 <i>bù jí</i>	Deficiency: Insufficiency of a function, not necessarily reflected in vacuity. E.g., deficient free coursing of the liver – the cause of depressed liver qi (a repletion pattern).
竭 <i>jié</i>	Exhaustion: Severe insufficiency.
亏 <i>kuī</i>	Depletion: Gradually occurring insufficiency.

Preserving Conceptual Distinctions

Chinese	English
癰 <i>yōng</i>	Welling-abscess: Large elevated suppurative lesion below the skin with redness and pain. Clearly circumscribed. There are also w-a of the internal organs.
疽 <i>jū</i>	Flat-abscess: Diffuse suppurative lesion without elevation.
疔 <i>dīng</i>	Clove sore: A small hard sore with a deep root, occurring most commonly on face or ends of fingers.
疖 <i>jié</i>	Boil: a small round superficial swelling that is hot and painful, suppurates within a few days, and easily bursts.

Preserving Conceptual Distinctions

Chinese	English
疥 <i>jiè</i>	Scab: A skin disease characterized by small papules the size of a pinhead that are associated with insufferable itching that when scratched may suppurate and crust without producing exudate. WM: scabies.
癬 <i>xiǎn</i>	Lichen: A skin disease characterized by elevation of the skin, serous discharge, scaling, and itching.

Preserving Conceptual Distinctions

Chinese	English
疝 <i>shàn</i>	Mounting: Any of various diseases characterized by pain or swelling and distention of the abdomen or scrotum.
寒疝 <i>hán shàn</i>	Cold mounting: cold pain in the umbilical region with cold sweating and counterflow cold of the limbs.
疝气 <i>shàn qì</i>	Mounting qì: inguinal hernia.
狐疝 <i>hú shàn</i>	Foxlike mounting: inguinal hernia.

Preserving Conceptual Distinctions: Both Draining?

Chinese	English
泻 <i>xiè</i>	Drain: 1) in principles of treatment, the action of treating superabundance (repletion patterns); 2) specifically the action that draws fire down and out of the body (drain fire).
利 <i>lì</i>	Disinhibit: 1) to free any stoppage in a given region (e.g., to disinhibit the throat in the treatment of painful swollen throat); 2) to facilitate the movement and elimination of unwanted substances (disinhibit dampness).

Preserving Conceptual Distinctions

Chinese	English
疝 <i>shàn</i>	Fortify the spleen: To enhance the movement and transformation function of the spleen.
寒疝 <i>hán shàn</i>	Arouse the spleen: To fortify the spleen with aromatic medicinals in the treatment of spleen encumbered by dampness.

Preserving Conceptual Distinctions

Chinese	English
和血 <i>hé xuè</i>	Harmonize the blood: To treat mild blood stasis as resulting from blood vacuity
化瘀 <i>huà yù</i>	Harmonize the blood: To treat blood stasis.
破血 <i>pò xuè</i>	Harmonize the blood: To forcefully treat blood stasis.

Preserving Conceptual Distinctions

Chinese	English
祛湿 <i>qū shī</i>	Dispel dampness: To eliminate dampness in any way.
化湿 <i>huà shī</i> 胜湿 <i>shèng shī</i>	Transform dampness: (1) Dispel dampness. (2) Dispel dampness in the upper burner using aromatic medicinals that promote sweating. Qiang huò shèng shī tāng.
燥湿 <i>zào shī</i>	Dry dampness: Dispel dampness, especially in middle burner, without inducing sweating or increasing urination.
利湿 <i>lì shī</i>	Disinhibit dampness: encourage dampness in the lower burner to pass out with urine.
收湿 <i>shōu shī</i>	Absorb dampness: Remove dampness from the skin using externally applied medicinals.

Further Source-Oriented Measures: Linguistic Access

- In transmitted bodies of knowledge, texts in many languages often include terms of the source language in order to reinforce connections between target and source-language terms, e.g., in Chinese, 红斑性狼疮 (lupus erythematosus).
- Good practice in Chinese medicine involves exactly the same procedures, except that Pinyin is usually used to represent Chinese characters.
- Western students of medicinal therapy usually learn Pinyin names for medicinals, as well as Latin names derived from botanical and zoological names and in some cases common English names. Hence a good practice is to write *gān jiāng* (Zingiberis Rhizoma, dried ginger).
- Similar examples: *guì zhī tāng* (Cinnamon Twig Decoction); LI-4 (*hé gǔ*, Union Valley).

Examples

MÁ HUÁNG TĀNG / *ma huang tang* 麻黄汤 (Ephedra Decoction): From *Shāng Hán Lùn* 伤寒论.

- *Má huáng* 麻黄 (Ephedrae Herba, ephedra) 9 gr
 - *Guì zhī* 桂枝 (Cinnamomi Ramulus, cinnamon twig) 6 gr
 - *Xìng rén* 杏仁 (Armeniaca Semen, apricot kernel) 9-12 gr
 - *Gān cǎo* 甘草 (Glycyrrhizae Radix, licorice) 3 gr.
- **Method:** Decoct in water.
 - **Actions:** Promotes sweating and resolves the exterior; diffuses the lung and calms panting.
 - **Indications:** External contraction of wind-cold with heat effusion, aversion to cold, absence of sweating, cough and panting, headache and generalized pain. Pulse: Floating and tight. Tongue fur: Thin and white.
 - **Warnings:** This formula is only for wind-cold exterior repletion patterns. It is contraindicated for wind-heat common cold, sores after rupture, or after loss of blood.
 - **Rationale:** *Má huáng* is a warm acrid agent that acts on the defense aspect. It effuses sweat and resolves the exterior, as well as diffusing the lung and calming panting. It is therefore the sovereign agent. *Guì zhī* is a warm sweet agent that enters the provisioning aspect, resolve the flesh and disperses cold. Importantly, it enhances the sweat-effusing action of *má huáng*. The *gān cǎo* curbs the acrid, dry properties of *má huáng*. The *xìng rén* diffuses the lung and downbears qì, thereby helping both the exterior-resolving and panting-calming action of *má huáng*.

- **Deviated eyes and mouth** (口眼喎斜 *kǒu yǎn wāi xié*): the face and eyes pulled to one side of the face. Seen in wind stroke and facial paralysis.
- **Convulsions** (抽搐 *chōu chù*): Also called “tugging and slackening” (瘈瘲 *chì zòng*). Rapid involuntary movement of the limbs. Because it is caused by internal wind, it is often called “tugging wind” (抽風 *chōu fēng*). It is observed in fright wind attributable to extreme heat stirring wind, in lockjaw attributable to external wind toxin damage, and in epilepsy patterns, which are attributed to wind-phlegm. Convulsions with clouded spirit are called “tetanic reversal” (痉厥 *jìng jué*).
- **Arched-back rigidity** (角弓反张 *jiǎo gōng fǎn zhāng*): Backward arching of the back, called “opisthotonos” in biomedicine. It occurs most commonly in fright wind attributable to extreme heat engendering wind, in lockjaw attributable to external wind toxin damage, and other tetany patterns.
- **Clenched jaw** (牙关紧闭 *yá guān jǐn bì*): A tightly closed jaw, called “trismus” in biomedicine. This occurs most commonly in fright wind attributable to extreme heat engendering wind, in tetanic disease (including lockjaw attributable to external wind toxin damage), and in wind stroke attributable to liver yáng transforming into wind.
- **Jerking sinews and twitching flesh** (筋惕肉瞤 *jīn tì ròu shùn*), sporadic movement of body parts, includes twitching of the eyes, wriggling of the extremities (手足蠕动 *shǒu zú rú dòng*, gentle movements of the hands or fingers and feet or toes), and tremor of the extremities (手足震颤 *shǒu zú zhèn chàn*, quivering motions of the extremities). These are all mild signs of liver wind stirring internally.
- **Unsteady gait** (步履不正 *bù lǚ bù zhèng*, 步履不稳 *bù lǚ bù wěn*) is the inability to walk smoothly and straight, indicating liver yáng transforming into wind.
- **Shaking of the head** (头摇 *tóu yáo*) is a sign of liver yáng transforming into wind.
- **Hemiplegia** (半身不遂 *bàn shēn bú suì*) is paralysis of one side of the body that occurs in wind stroke (i.e., stroke, apoplexy), attributable to liver wind stirring internally (liver yáng transforming into wind).

Advantages of Source-Oriented Translation

- Look alike terms produce high accuracy (high back-translatability).
- They are easiest to learn.
- Consistency reduces learning burden.
- These principles work for texts from all ages.
- Look-alikes best for people learning Chinese.
- Look-alikes are best for bilinguals, who are often influential in the transmission process.
- They are easiest for Chinese students learning Chinese medical English.

Target-Oriented Translation?

- Target-oriented translation of technical terminology means
 - Using terms familiar to the target user wherever possible. In the English translation of CM, it means using
 - biomedical terms and
 - colloquial terms.
 - Creating as a few new terms as possible.
- For these reasons, it cannot be applied on a large scale for a complex body of knowledge, without loss of information for the target user.

Domestication Through the Use of Colloquial Expressions

- There is a tendency to use colloquial expressions, especially for symptoms, which may lead to conflation or confusion.
 - 痺 *bì*, joint pain
 - 淋 *lín*, painful urination
 - 少食、納呆 poor appetite
 - 筋惕肉瞤 *jīn tì ròu shùn* 、手足蠕動 *shǒu zú rú dòng* 、手足震顫 *shǒu zú zhèn chàn*, spasm

Domestication Through the Use of Biomedical Terms

- The use of biomedical terms to represent Chinese medical concepts is a major point of disagreement.
- It is representative of the divide between SO and TO translation.
- 风火眼 acute conjunctivitis
- 附骨疽 suppurative osteomyelitis
- 疝 lower abdominal colic; hernia
- 痹 arthralgia

■ I apply the principle that a biomedical term can be used if it does not introduce any concepts alien to Chinese medicine. Examples:

- 癆 ⇒ consumption ✓
- 耳鳴 ⇒ tinnitus ✓
- 風火眼 ⇒ acute conjunctivitis ✕ (wind-fire eye)
- 濕毒帶下 ⇒ cervicitis ✕ (damp-heat toxin)

WHO 2007: Inconsistency

Chinese	WHO	Wiseman
鼻疔 <i>bi ding</i>	Nasal boil	Clove sore of the nose
舌疔 <i>she ding</i>	Tongue boil	Clove sore of the tongue
脣疔 <i>chun ding</i>	Lip pustule	Clove sore of the lip
蛇頭疔 <i>she tou ding</i>	Snake-head whitlow	Snake's-head clove sore
癰 <i>jie</i>	furuncle	boil
螻蛄癰 <i>lou gu jie</i>	Mole cricket boil	Mole cricket boil
消癰散癰 <i>xiao yong san jie</i>	Disperse abscesses and boils	Disperse welling-abscess and boils

Comment: WHO has 3 different translations for 疔 and 2 for 癰. Wiseman has 1 term for each. The WHO replaces traditional classifications with biomedical classifications.

WHO 2007: Inconsistency

Chinese	WHO	Wiseman
癰 <i>yong</i>	Abscess	Welling-abscess
乳癰 <i>ru yong</i>	Acute mastitis	Mammary welling-abscess
有頭疽 <i>you tou ju</i>	Carbuncle	Headed flat-abscess
附骨疽 <i>fu gu ju</i>	Suppurative osteomyelitis	Bone flat-abscess
環跳疽 <i>huan tiao ju</i>	Suppurative coxitis	Jumping Round (GB-30) flat-abscess

Comment: The WHO terms replace traditional classifications with biomedical classifications.

Disadvantages of Source-Oriented Translation

- The difficulties created by neologisms (新造词) can be alleviated by adding explanations in text, in footnotes, or in glossaries.
- The extent of commonly used terminology requiring neologism is limited. There are only 300 commonly used traditional disease names used in modern textbooks. Only a proportion of symptom terms require newly creations.
- The benefits of source-oriented translation far outweigh its disadvantages by enhancing diagnosis and general depth of understanding of the subject.
- Many consider biomedical terminology helpful for MDs and integrating Chinese medicine into modern health-care (even though most Western practitioners are not MDs). This could be remedied by having a dual translation scheme, with rough biomedical equivalents in addition to faithful source-oriented translations.

Part 2: Supplementary Material

The Cognitive Bases of Chinese Medicine: A Key Target for More Background Information

- The cognitive bases of Chinese medicine is an area in which background information would be a useful addition.
- Scholars of Chinese medicine are familiar with the idea of “correlative thinking.”
- Correlative thinking is analogical reasoning; it stands in contrast to analytical reasoning.
- Explaining how these two modes of reasoning contributed to the basic theories of Chinese medicine is one way of making study much easier and more interesting.

Analysis vs Analogy

- Many features of Chinese medical theory are derived by analysis, that is, by inferences from direct observations.
- Many features of the internal organs are explained in terms of inferences from direct observations:
 - The lung is responsible for breathing;
 - the heart moves the blood and stores the spirit;
 - the stomach digests food;
 - the liver stores the blood; and
 - the kidney produces urine.
- Except for the heart storing the spirit and the liver storing blood, these theories are all consistent with biomedicine.

- Many other theories are derived by analogy.
 - The spleen governs movement and transformation (digestion and absorption).
 - The lung governs diffusion and depurative downbearing, notably controlling the movement of water through the body.
 - The kidney stores essence, a “substance” required for reproduction, whose strengthening enables the body to develop and whose decline causes aging.
 - The liver governs free coursing, that is, it ensures the smooth flow of qì around the body.
- These theories are learned by rote. Their origins are not explained in textbooks.
- To enable students to understand how the theories evolved requires a great deal of background explanation.

- The ideas I present to today are described in detail in a forthcoming publication: *Chinese Medicine and the Ideas that Shaped It*, Paradigm Publications.
- Many of the ideas presented come from Jiǎ Chūnhuá (贾春华), notably from his *Zhōng Yī Xué: Yī Ge Yǐn Yù de Shì Jiè* (中医学：一个隐喻的世界 “Chinese Medicine: A World of Metaphor”), People’s Publishing House, 2017.

The Importance of Analogy

- The main ancient formative text in which the basic theories were first set out (many of which have been retained to this day) is the *Huáng Dì Nèi Jīng* (hereafter *Nèi Jīng*) .
- The *Nèi Jīng* states clearly that its theories can only be fully understood through analogies: “Without drawing comparison of kinds [i.e., analogy], this cannot be clearly understood.” 不引比类, 是知不明 *bù yǐn bǐ lèi, shì zhī bù míng*).
- Despite this,
 - the *Nèi Jīng* does not explain all the analogies of its basic statements (theories) in detail;
 - the analogies are complex, interwoven among themselves and with analytical reasoning.
 - So all explanations of analogy are *speculative* and hence must be offered as commentary, that is, as background information. Text and explanation should be kept separate.

The Philosophical Problem of Analogy

- Analogy is problematic for modern students because, in the modern scientific mind-set, it is not considered a reliable basis for knowledge.
- Analogy is used in the modern sciences as a means of formulating hypotheses (e.g., the brain might be expected to function like a computer) but is not used to establish theories.
- In Chinese medicine, analogy forms the basis of many aspects of theory.
- The analogical systems of yīn-yáng and the five phases are the mainstays of many theories.

Example: Liver

- Phase (agent): Wood.
- Functions
 - Stores the blood (肝藏血 *gān cáng xuè*)
 - Governs free coursing and upbearing effusion (肝主疏泄、升发 *gān zhǔ shū xiè、shēng fā*)
- Associated body parts: Eyes, sinews, nails
- Affect-mind (emotion/state of mind): anger
- Averse to wind (肝恶风 *gān wù fēng*)
- Empire-paradigm epithet: the army general.
- Students learn these theories by rote. Without explanation, understanding is left to intuition.

Liver-Wood

- Among the five phases (agents), the liver belongs to wood.
- “Wood” signifies trees and plants in general. It
 - has the action of “bending and straightening” (木曰曲直 *mù yuē qū zhí*) and
 - “thrives by orderly reaching” (木喜条达 *mù xǐ tiáo dá*), stretching upward and outward.
 - is associated with “birth,” and so with springtime in the yearly cycle and with morning in the daily cycle;
 - is associated with the easterly position (東, a pictogram of the sun 日 *rì* viewed as rising through the trees 木); and
 - is associated with green (the color that nature takes on the spring), sourness, and wind.
- Wood explains many features of the liver.

- The liver belongs to wood.
- The ***only direct connection*** between the liver and wood is the appearance of the liver as a large reddish-brown organ.
- The Chinese character for the liver is 肝 *gān*, which contains the element 干 *gàn*, which means a tree trunk, a wooden shield, or large shield-shaped objects.
- The character may have encouraged the liver's association with wood.

Functions: Blood Storage

- **The liver stores the blood (肝藏血 *gān cáng xuè*):** This function was presumably inferred analytically from
 - the deep reddish-brown appearance and bloody texture of liver and possibly
 - the knowledge that severe rupturing of the liver as by a weapon usually caused massive hemorrhage swiftly leading to death.
- Although the notion that the liver stores blood is not well supported by modern medical science, it is interesting that Europeans once believed that the liver “produced” the blood, presumably for similar reasons.

Functions: Free Coursing and Upbearing Effusion

- **The liver governs free coursing** (肝主疏泄 *gān zhǔ shū xiè*, originally 敷和 *fū hé* in the *Nèi Jīng*) ensures the free flow of qì around the body.
 - Although many believe that the liver was ascribed to wood because of this function, there is *no physical connection between this function and the liver*.
 - Therefore, this function must have been identified and ascribed to the liver under the expectation of a resonance in the body with the “orderly reaching” quality of wood.
 - It is modeled directly on the wood’s “orderly reaching” quality by “prospective analogy.”
- **The liver governs upbearing and effusion** (肝主升发 *gān zhǔ shēng fā*) ensures the spread of qì to the upper body.
 - This action was identified under the influence of an expectation that the liver behaves like upward and outward-growing plants.

Anger

- **Anger is the mind of the liver (anger damages the liver):** From direct observation, we know that anger causes blood to surge to the head affecting the color of the complexion. This is reflected in our hyperbolic English expressions “to blow one’s top” (anger) and “blue in the face” (frustration causing anger).
- The upward movement of qì is explained as liver’s yáng qì carrying the blood upward, just as trees grow upward and outward.
- Sudden flights of anger can cause excessive upbearing effusion, giving rise to “wind stroke” (cerebrovascular accident).
- Chronic anger and frustration (and “stress”) affect the free coursing action, giving rise qì stagnation. This manifests in
 - distending pain in the rib-side and menstrual irregularities and
 - when liver qì moves cross-counterflow to affect the spleen or stomach, digestive problems.
- Interestingly, this shows that Chinese medicine views emotion as an extension of qì. “The feeling of things not going our way” (情志不遂 *qíng zhì bù suì*) = qì not moving properly.

Shouting; Eyes

- **Shouting is the voice of the liver:** Loud speech is required to ensure that one's voice is heard over a long distance. It is also associated with anger where the added volume of sound is intended to intimidate. Thus, shouting is associated with the liver because it reflects both the outward-reaching quality of wood and anger.
- **The liver opens at the eyes:**
 - The eyes are our farthest-ranging sense. To know what is happening in a distant place, we use our eyes, since our other senses do not reach so far. The eyes are located in the upper part of the body and we enhance their range of perception by climbing to treetops and mountaintops to view the lay of the land. Hence the eyes reflect the upward and outward-reaching qualities of wood.
 - The eyes are related to the blood-storing function, since they require adequate amounts of blood to function properly. Hence, analogical reasoning is backed by analytical findings.

Sinews

- **The liver governs the sinews:** The sinews (筋 *jīn*), which enable the body to bend and stretch, are directly associated with wood, which has the quality of “bending and straightening.”
- The character 筋 *jīn* itself has 竹 (bamboo) as its radical and originally meant the highly pliable skin of the bamboo. So early medical scholars would naturally have linked the sinews directly to wood.
- The connection between the sinews and liver-wood was clearly justified by the sinews’ reliance on the blood storage function to provide abundant supplies of blood. Without sufficient blood, spasm develops.

Liver is Averse to Wind

- **The liver is averse to wind:** The environmental qì associated with the liver is wind, which has a stirring quality like the growth of plants. Plants bend and sway in the wind, having evolved suppleness to resist wind's destructive effects.
- Bodily movement is a product of the sinews, and abnormal movements, such as spasm and tremor, are likened to the effect of wind on plants. Hence, it is said that “the liver is averse to wind.”
- Just as plants remain supple when they have enough sap, so the sinews need an adequate supply of blood to move freely. Spasm of various kinds is often associated with insufficiency of blood arising when the liver fails to keep enough blood in store.
- Sudden loss of movement, which occurs in stroke patients, can be likened to a violent storm that breaks the branches and trunks of trees. Hence, “stroke” is called “wind stroke” (中风 *zhòng fēng*). In this way, wood, the liver's blood-storing function, and the sinews are all clearly linked together in pathology.

The Liver as General

- **The army general:** The liver as general forms part of what might be called the “empire paradigm,” in which internal organs are described by analogy to government positions.
- “The liver holds the office of general; strategies emanate from it” (肝者，将军之官，谋虑出焉 *gān zhě, jiāng jūn zhī guān, mǒu lǜ chū yān*).
- This line, from Chapter 8 of the *Sù Wèn*, captures many facets of the liver, notably its association with the sinews, the nails, the eyes, and anger. However, it is not discussed in all English-language textbooks.

- The general's army is the sinew (muscle) and nails/claws/talons (weaponry) of the nation. Unfortunately, the English word "nail" fails to convey the connotation of weaponry that the Chinese 爪 *zhuǎ/zhǎo* has.
- The army not only prevents enemy invasions but also extends the national territory, reflecting the spreading action of wood.
- The army is the intelligence service that maps the national territory and performs reconnaissance missions. It is the "eyes" of the nation.
- The army is easily provoked into action, reflecting anger. The battle cry is a manifestation of shouting.
- The general himself must be able to predict all possible enemy operations through time and space with a calm mind: The general "in the seclusion of his tent, is able to determine the outcome of distant battles" (运筹帷幄之中，决胜千里之外). This, again, reflects the far-reaching quality of wood.

Concluding remarks

- In conclusion, the liver is of special interest because its architecture provides no clues to its functions other than blood storage.
- Of all the functions and associations of the liver, only blood storage is directly based on inferences from direct observation.
- All others, that is, free coursing, upbearing effusion, and the associations with wind, the eyes, sinews, nails, and anger all involve analogies with wood.
- However, the association with the eyes, sinews, and nails is supported by the direct relationship with the blood storage function.
- Interestingly, virtually all the functions and associations of the liver are reflected in the single notion of the liver as the army general.

The Five Minds and Seven Affects

- The relationship of specific emotions or mental states (情志 *qíng zhì*) to each of the five viscera is considered a novelty of Chinese medicine.
- It may be more firmly grounded in inferences from direct observation than we might think.
- Using the framework of analysis and analogy, it is relatively easy to theorize about how these relationships were established.

- An influential Finnish study has shown how different emotions are felt in different parts of the body. Nummenmaa L., et al., *Bodily Maps of Emotions*, PNAS, 2013, <https://doi.org/10.1073/pnas.1321664111>
- The study covered a wider range of emotions than those recognized in Chinese medicine.
- However, anger, happiness, sadness, and fear match the classical anger 怒 (怒 nù), joy (喜 xǐ), sorrow (悲 bēi), and fear 恐 (kǒng).

- The study says that many emotions are felt primarily in the region of the heart, which is consistent with the Chinese medical notion that all emotions are reflected in the heart, even though they belong to distinct viscera.
- It also says they are each felt in different parts of the body: anger is felt in the upper body and head; happiness (joy) is felt all over the body; sadness (sorrow) is felt in the chest; and fear is felt in the lower part of the trunk.
- Chinese medical scholars may well have been aware of different sensations in different parts of the body.
- Under the influence of the five-phase theory, medical scholars looked for groups of five things.
- Hence, it is not surprising that they identified “five minds” and linked them to five viscera and the five phases: anger with liver-wood, joy with heart-fire, thought with spleen-earth, anxiety with lung-metal, and fear with kidney-water.

Anger

Fear

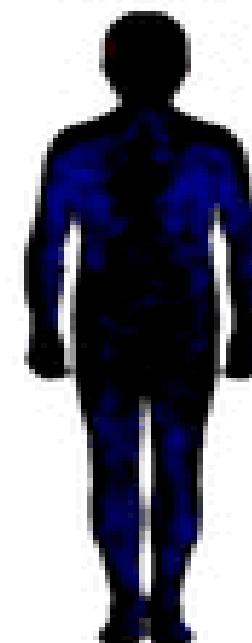
Disgust

Happiness

Sadness

Surprise

Neutral



Anxiety

Love

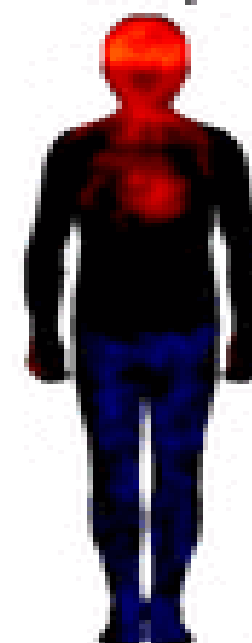
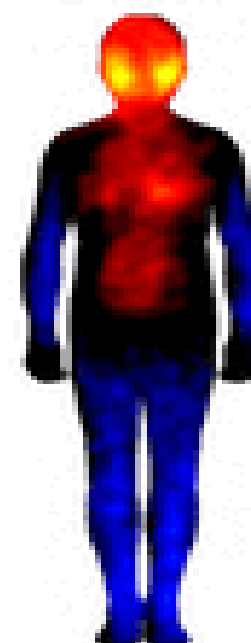
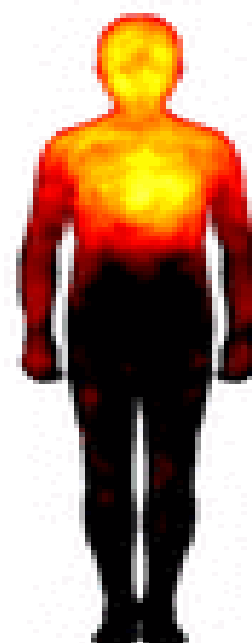
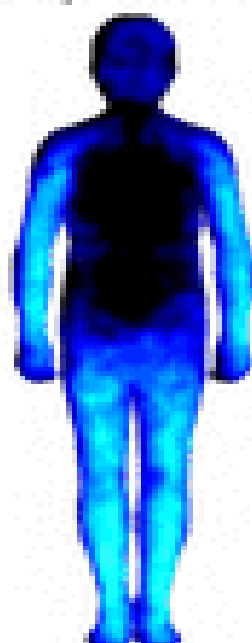
Depression

Contempt

Pride

Shame

Envy



Joy and heart-fire

- As we saw in the discussion of the liver, anger is experienced as a surge of blood to the head, which is associated with the upward movement of qì that reflects wood.
- But what of the associations of the other “minds”?
- Joy and heart-fire:
- The heart is the sovereign (君主 *jūn zhǔ*) and is the great governor of the five viscera and six bowels (心为五脏六腑之大主 *xīn wéi wǔ zàng liù fǔ zhī dà zhǔ*).
- The heart belongs to fire, which represents the conviviality and safety of the campfire and the glory of social unity represented by the sovereign.
- Of the five minds, joy is the only positive one. It is felt over the whole body, just as the power and glory of the good sovereign is felt throughout the nation.

Thought and Spleen-Earth

- “Thought” or “pensiveness” (思 *sī*) is the affect or mind associated with the spleen. The spleen is also said to store “ideation” (意 *yì*), which is essentially the same in meaning.
- Thought is our ability to produce new thoughts, ideas, explanations, plans, and intentions; in other words, the creative part of our minds.
- Thought can barely be considered an emotion associated with physical sensations but it is directly related to the productiveness of earth. Earth is the mother of the myriad things, including ideas produced by our minds.
- This connection between thought and the spleen is supported by the observation that excessive thinking or rumination can damage the function of the spleen, just as over-cultivation of farmland taxes the earth.

Anxiety or Sorrow and Lung-Metal

- Anxiety is the mind of the lung. The Chinese 忧 *yōu* has several meanings: worry, sadness, depression. All of these can be felt in the chest and can affect breathing.
- Among the seven affects, sorrow (悲 *bēi*) is unequivocal in meaning. It is what we feel when we experience the loss of a loved one, a valuable possession, or an opportunity for positive action.
- Sorrow is associated with the lung, probably because it is most strongly felt in the chest as a feeling of heaviness.
- Not surprisingly, wailing is the voice of the lung, by its association with sorrow.
- Sorrow accords with the lugubrious feelings evoked in autumn when life activity in nature is in decline.

- Extreme feelings of grief and loss can result in an existential crisis that manifests in a sensation of being unable to breathe.
- Excessive or prolonged anxiety and sorrow damage the lung.
- It is interesting that that breath control can calm any of the other emotions. This reflects the empire-paradigm epithet of the lung as the sovereign's minister-mentor (相傳 *xiàng fù*), who, by his wise counsel, tempers any impulsiveness of the sovereign to ensure the stability of the empire.

Fear and Kidney-Water

- Fear is the mind of the kidney.
- Fear is felt not only in the upper part of the body but also in the lower regions of the trunk where the kidneys are located.
- Fear has a direct association with the kidney, since it affects the general storage function (肾主封藏 *shèn zhǔ fēng cáng*). Severe fear or fright can cause both urinary and fecal incontinence. Hence, it is said that fear damages the kidney.
- Fear is also associated with the water phase by virtue of the qualities of winter.
 - Fear in its extreme form is fear for one's life, and winter is the time of year when much of life is threatened.
 - In harsh northern climes, winter is the season when people in traditional agrarian and pre-agrarian societies were pressed by food shortages and by lack of warmth.
 - Even today, the cold weather of winter represents a threat particularly to the aged.

Conclusion

- By investigating what theories arose by analysis and analogy, we find some surprises.
- The liver's association with wood is based only on the appearance of the liver.
- The notion of blood storage is directly based on (dubious) analysis of direct observations.
- Free coursing is derived by prospective analogy.
- The empire-paradigm analogy to the army general is useful because it encapsulates many of the analogies of the liver.
- The five minds and seven affects may have greater grounding in direct observation than many might think, as well as being related analogically to the organs and phases.

- Because, in the modern age, we consider analogy to be a poor basis for knowledge, its importance in Chinese medicine is considered a great flaw.
- It must, however, be understood that despite errors in associations between organs and functions, the traditional scheme allows disorders to be treated.
- Modern students understand that the free coursing function “represents” the movement of qì, just as they understand that the spleen “represents” digestive functions and the kidney “represents” reproductive functions.
- Chinese medicine treats morbid processes.
- By logical necessity, morbid processes are understood as disturbances of the functions of organ substrates.
- However treatments are not directly linked to organ substrates. In the case of the liver, treatments involve “rectifying qì,” “supplementing yīn and blood,” “subduing yáng and extinguishing wind” with medicinals known to relieve specific symptoms.
- Many may fear that discussion of the role of analogy exposes the weaknesses of Chinese medicine. But when the issues are fully understood in relation to the pragmatic aspects of Chinese medicine, we should be able to talk about them without embarrassment.