

The Yí Jíng and The Genetic Code

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The Yí Jíng and the Genetic Code

Both are universal codes
There are clear correlations between the two codes

Genetic Code

- double helix structure; & L vs. R rotation
- ascending & descending chains
- **32 codons & anticodons**
(two sides of a zipper)
- *peptides are of two types:*
 - purines & pyrimidines
 - 3 hydrogen bonds vs. 2 hydrogen bonds
(strong bond) (weak bond)
- 4 peptide/bases (always in pairs)
 - Adenine & Thymine (2 H bonds) • weak bonds
 - Cytosine & Guanine (3 H bonds) • strong bonds

Yi Jing

- yin - yang logic
- yang ascends yin descends
- hexagrams are clearly paired whether in King Wen or Fu Xi sequence = **32 pairs of hexagrams**
- yang/light/solid yin/dark/divided line
- #3 (odd #'s) #2 (even #'s)
- (firm/rigid) (supple/weak)
- 4 bigrams [tai-yin, shao-yang, shao-yin, tai-yang] 2 yin – 2 yang
- represented by line #'s 6 & 9 (old yin & yang)
are more likely to change, i.e. 6 or 9)
- represented by line #'s 8 & 7 (young yin & yang)

Genetic Code (cont.)

| | | | | | |
|------------------------|------------|---|-----|-----------|-------|
| (RNA = U racil) | T = | 0 | — — | tai yin | — — 6 |
| | | 0 | — — | | |
| | C = | 0 | — — | shao yang | —— 7 |
| | | 1 | —— | | |
| | G = | 1 | —— | shao yin | — — 8 |
| | | 0 | — — | | |
| | A = | 1 | —— | tai yang | —— 9 |
| | | 1 | —— | | |

Genetic Code (cont.)

- 3 bases make an amino acid (triplet)
(the basic building blocks of life)
 - the sequence of polypeptides is specific
 - to each amino acid (read in specific direction)
 - Example: AGG = Arginine (L to R)
 - there are 64 possible combinations of triplets (4^3)
 - only 23 are unique (20 amino acids)
 - + 3 instructional codes (begin / end)
 - ~10 rungs in a 360° twist of the DNA spiral
= 1 turn/spiral rotation
- 3 lines make a trigram, 3 pairs of lines make a Hex.
(the basic building blocks of a hexagram)
 - the sequence of lines is specific
to each trigram/archetype (also specific)
yin-yang-yin = Kan (bottom to top)
 - there are 64 hexagrams (2^6) or (8^2)
 - all are unique, but some are similar in meaning
hexagram names suggest starting or stopping
 - the 8 directions are associated with # 1-10
(5&10 in center)
 - ba gua is often arranged as a circle (360°)

Genetic Code (cont.)

- there are 3 major forms of DNA
- they are A, B, & Z types (A & B are R-handed; Z is L-handed)
- base pairs per turn: A=11, B=10.5, Z=12, B is most common
- There are 6 axes or coordinates that characterize + up & down)
- the geometry of base pairs within the helix. (shift, slide, rise, tilt, roll, & twist)
- major (wide) & minor (narrow) groove (binding sites) grooves
- corresponds to trigrams & the 3 Realms (Tian-Di-Ren)
- handedness corresponds to yin & yang
- 12 corresponds to Terrestrial Branches
- the six directions/coordinates are (front, back left & right
- the 6 lines are referred
- yin & yang could be said to represent the two types of

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A & B are R-handed;
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- # of base pairs per turn:
A=11,
B=10.5, is most common
Z=12
- There are 6 axes or coordinates that characterize the geometry of base pairs within the helix.
(shift, slide, rise, tilt, roll, & twist)
- 2 types of binding sites
major (wide groove) &
minor (narrow groove)
- corresponds to trigrams
the 3 Realms (Tian-Di-Ren)
- handedness corresponds to yin & yang
- 12 corresponds to Terrestrial Branches
- The six directions/coordinates are
(front, back left & right + up & down)
- the 6 lines are referred to as
(people, official, feudal lord, minister, ruler, sage)
- yin & yang could be said to represent the
two types of grooves