X
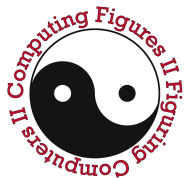
Chiasmus, cognition, computation; computation, cognition, chiasmus

Randy Allen Harris
English Literature and Language
University of Waterloo

raha@uwaterloo.ca

UNIVERSITY OF
WATERLOO

The Chiastic Suite

Rhetorical Figures, Cognition, & Computation

- Some examples

The Chiastic Suite

- Antimetabole

- Iconicity

- Rhetorical functions

- The other six

UNIVERSITY OF
WATERLOO

Rhetorical figures

Linguistic configurations

- form and function (F & f)
  - $F \rightarrow$ added salience, aesthetic appeal, mnemonic features
  - $f \rightarrow$ rhetorical (i.e., communicative, pragmatic, suasive) purpose
- vast untapped resource for computational linguistics, including argument mining, text summarization, sentiment detection, credibility assessment, genre detection, authorship attribution, pathology diagnosis and monitoring, voice interaction systems, stylistic analysis, …
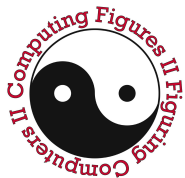
UNIVERSITY OF
WATERLOO

Rhetorical figures: Rhyme

$F(\sigma^i\# \ldots \sigma^i\#)$, f(conceptual amalgamation)

Instances

- If it doesn't fit, you must aquit
- What sobriety conceals, alcohol reveals
- Birds of a feather flock together

Rhetorical figures: Rhyme

$F(\# \ldots \sigma^i\# \ldots \# \ldots \sigma^i\#)$, f(conceptual amalgamation)

Instances

- If it doesn't fit, you must acquit
- What sobriety conceals, alcohol reveals
- Birds of a feather flock together

Rhetorical figures: Epanalepsis

$F(|W^i \dots W^i|)$, f(property selection)

Instances

- [A] dark Satanic mill ought to look like a dark Satanic mill and not like a temple of mysterious and splendid gods

- Boys will be boys

- In times like these, it is helpful to remember that there have always been times like these.

UNIVERSITY OF
WATERLOO

Rhetorical figures: Epanalepsis

$F(|W^i \ldots W^i|)$, f(property selection)

Instances

- [A] dark Satanic mill ought to look like a dark Satanic mill and not like a temple of mysterious and splendid gods

- Boys will be boys

- In times like these, it is helpful to remember that there have always been times like these.

UNIVERSITY OF
WATERLOO

The Chiastic Suite

Antimetabole

Iconicity

Rhetorical functions

The other six

Antimetabole

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$

Ins

comic relief

t is

you

stice

Antimetabole

$F(\text{W}^A \dots \text{W}^B \dots \text{W}^B \dots \text{W}^A)$

Instances

- Have you noticed that their stuff is shit and your shit is stuff!

- I meant what I said and I said what I meant.

- One for all and all for one.

- Ask not what your country can do for you. Ask what you can do for your country.

- Whether we bring our enemies to justice or bring justice to our enemies, justice will be done

Antimetabole

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$

Science

- If you press a stone with your finger, the finger is also pressed by the stone.

- Life is the germ and the germ is life.

- [T]he wire moves in opposite circles round each pole and/or the poles move in opposite circles around the wire.

- [A]ll organisms with T also have T*, and all with T* have T.

Antimetabole

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$

Mathematics and Logic

- $m + n = n + m$
- $mn = nm$; $m \times n = n \times m$
- $m - n \neq n - m$
- $m/n \neq n/m$; $m \div n \neq n \div m$
- $(p \;\&\; q) \leftrightarrow (q \;\&\; p)$
- $(p \lor q) \leftrightarrow (q \lor p)$
- The negation of a conjunction is the disjunction of the negations and the negation of a disjunction is the conjunction of the negations.

Antimetabole

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$

Philosophy

- [W]e are no less ignorant of that power on which depends the operation of mind on body, or of body on mind.

- [W]hen you look into the abyss, the abyss also looks into you.

- He is at home when he is not working, and when he is working he is not at home.

- When, for example, we say 'Rich people are poor people with money,' this definition is not reversible – we cannot say 'Poor people are rich people without money.

Antimetabole

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$

Ordinary language

- When the going gets tough, the tough get going.
- A place for everything and everything in its place.
- Do unto others as you would have others do unto you.
- Absence of evidence is not evidence of absence.
- Those who can't do teach, and those who can't teach, do.

UNIVERSITY OF
WATERLOO

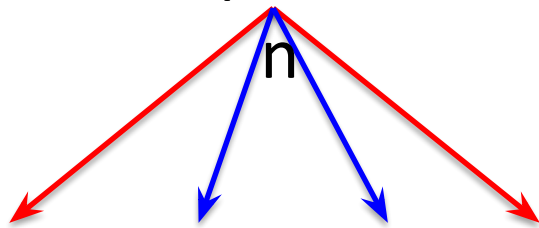# Antimetabole

$F(\mathrm{W}^A \ldots \mathrm{W}^B \ldots \mathrm{W}^B \ldots \mathrm{W}^A)$

Repetition

Symmetry

< >

Sequence (reversal)

UNIVERSITY OF
WATERLOO

Iconicity

"Extralinguistic" semiotics of form

Principle of quantity

The amount of form reflects something about the 'amount' of meaning

Principle of sequential order

The order of elements reflects something about order in the meaning

Iconicity

Principle of quantity

The amount of form reflects something about 'amount' in the meaning

- Triceratops lived a l o o o n g time ago.
- *Land before Time* happened way, way, way, way, … long ago, didn't it?
- Time flies. Flies. Flies. Flies. It flies away. It just flies away.
- Dog, dogs; cat, cats [fish, fish, yes; but no fish, fi]
- Japanese: hito, hitobito; kami, kamigami
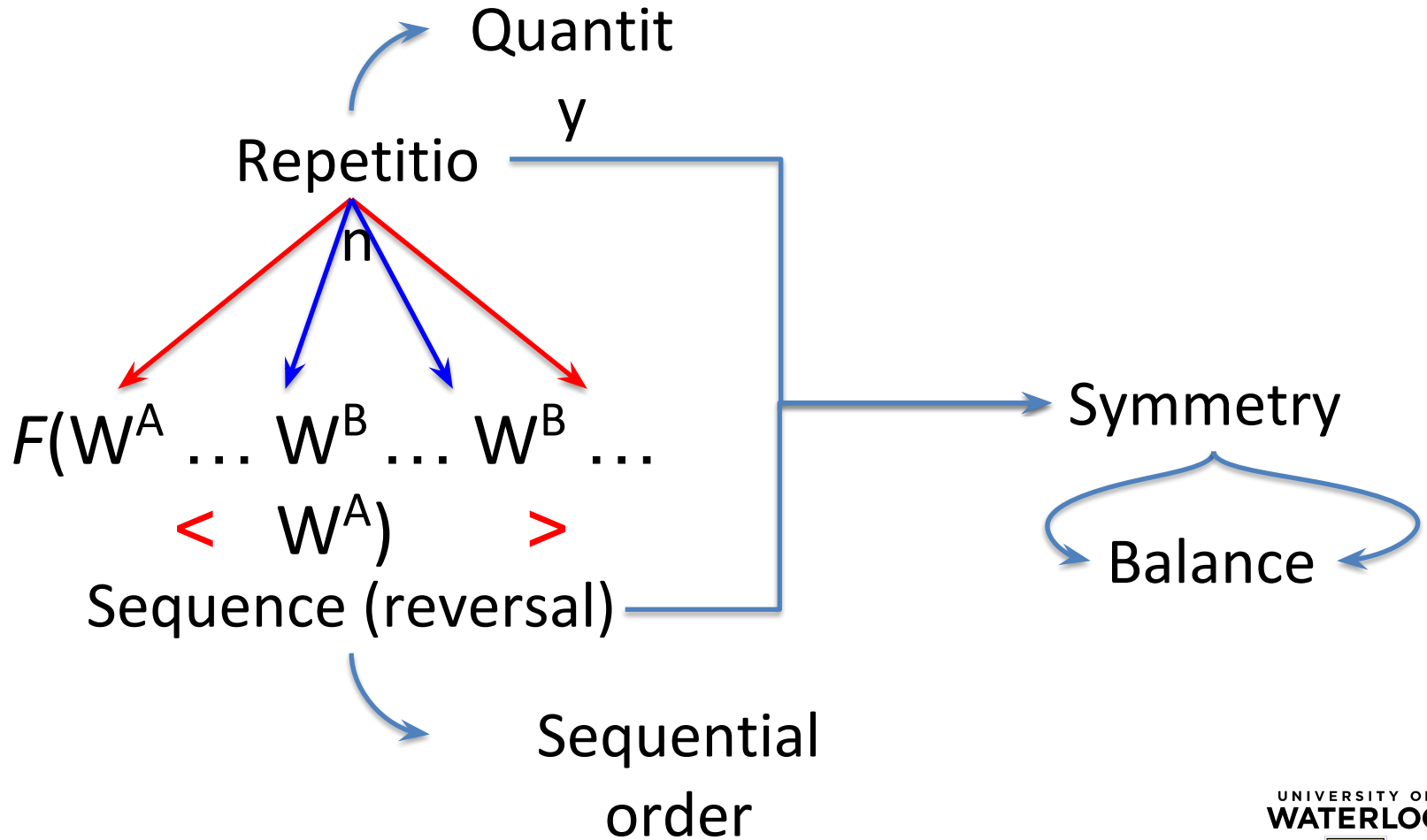- Mandarin Chinese: xiao, xiaoxiao; gaoxing, gaogaoxingxing

Iconicity

Principle of sequential order

The order of elements reflects something about order in the meaning

- Stop, drop, and roll.

- Don't drink and drive.

- Bob inherited a fortune and Betty married him.
  Betty married Bob and he inherited a fortune.

- Veni. Vidi. Vici.

- Kçêkuê sçê a$sti^ ho$ A$si@ba.
  Koku take stick hit Asiba
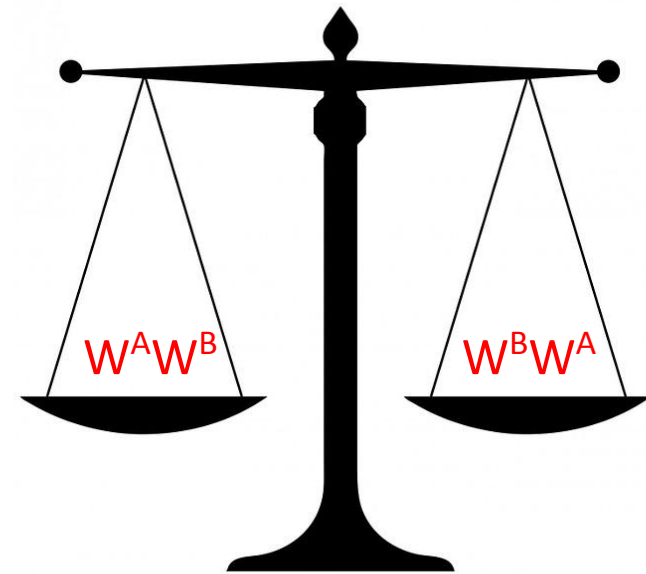 Koku hit Asiba with a stick.

Chiastic Iconicity

Quantity

Repetition

$F(W^A \ldots W^B \ldots W^B \ldots$

$< \quad W^A)$

Sequence (reversal)

Symmetry

Balance

Sequential order

raha@uwaterloo.ca, 19

UNIVERSITY OF
WATERLOO

Chiastic Iconicity

- Balance—equal values (equal 'amounts')
  - leverages quantity
- Mutually cancelling orders
  - leverages sequential order ('precedence') $W^A > W^B, W^B > W^A$
- Reciprocal direction
  - leverages sequential order ('flow')

$$\overrightarrow{W^A W^B} \quad \overleftarrow{W^B W^A}$$

$W^A W^B \qquad W^B W^A$

Antimetabole: Rhetorical Functions

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$ f(irrelevance-of-order)

- m + n = n + m, mn = nm, (p & q) ↔ (q & p)
- Me and you and you and me / No matter how they toss the dice, it had to be. / The only one for me is you, and you for me
- Gretzky and McNall, McNall and Gretzky, joined at the hip, joined at the wallet.
- Let me get one thing straight. I am Rob Ford. I like football and trains. Trains and football.

Antimetabole: Rhetorical Functions

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$ f(reciprocal specification)

- Life is the germ and the germ is life.
- A is the double of B if and only if B is the half of A.
- Women's rights are human rights, and human rights are women's rights.
- The good old hockey game is the best game you could name and the best game you could name is good old hockey game.
- Plato is philosophy, and philosophy, Plato.

UNIVERSITY OF
WATERLOO

Antimetabole: Rhetorical Functions

$F(\mathrm{W}^A \ldots \mathrm{W}^B \ldots \mathrm{W}^B \ldots \mathrm{W}^A)$ f(reciprocal influence)

- If you press a stone with your finger, the finger is also pressed by the stone.

- Women are changing the universities and the universities are changing women.

- Do unto others as you would have others do unto you.

- Nature works with nurture, and nurture with nature, to shape our aptitudes, our health, our very lives.

- Keep care of thy shop and thy shop will keep care of you.

Rhetorical Functions of Stacking

$$F(W^A \ldots W^B \ldots W^B \ldots W^A) + F(P^i, \neg P^i)$$

f(reject-replace)

- And so, my fellow Americans: ask not what your country can do for you—ask what you can do for your country.
- We don't build services to make money; we make money to build better services.
- We didn't land on Plymouth Rock. Plymouth Rock landed on us.
- It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness.

The Chiastic suite
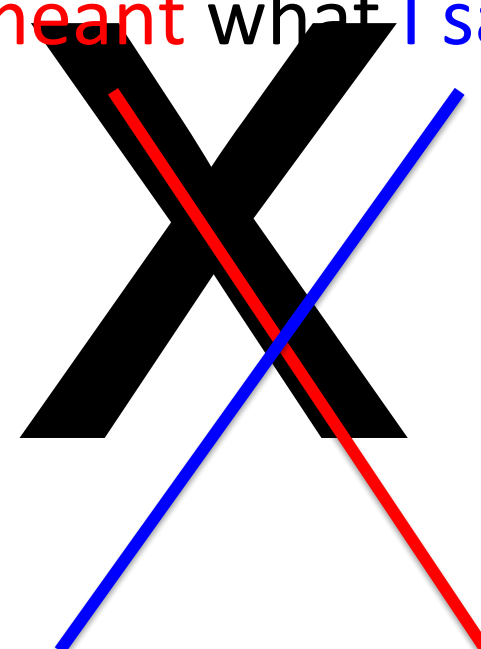
Antimetathesis

Morphological Chiasmus

Antimetabole

Syntactic Chiasmus

Antimetalepsis

Pseudo-Antimetabole
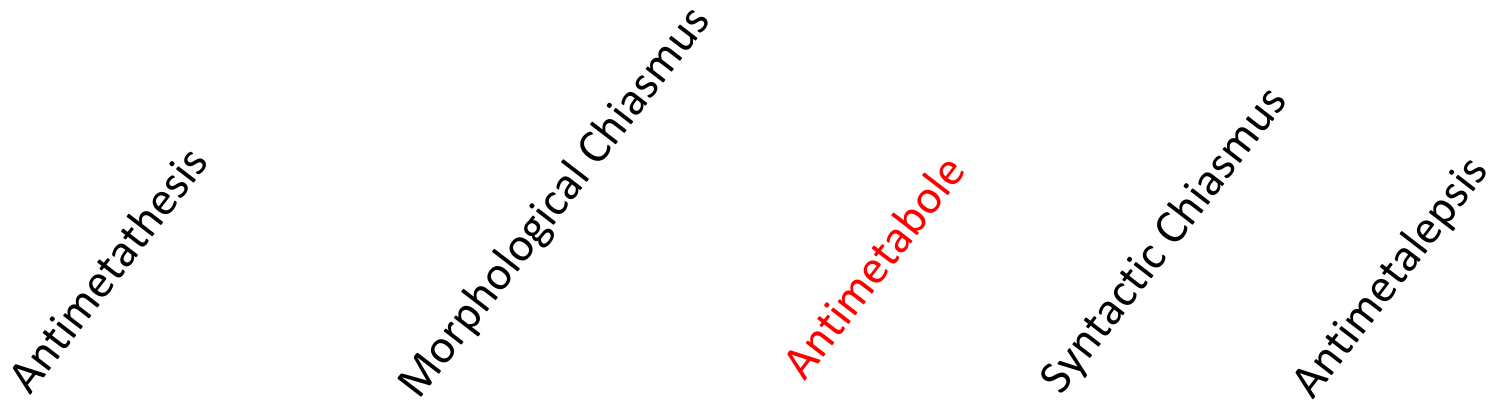
Implied Antimetabole

I meant what I said

And I said what I meant

UNIVERSITY OF
WATERLOO

The Chiastic suite

Antimetathesis

Morphological Chiasmus

Antimetabole

Syntactic Chiasmus

Antimetalepsis

Sound ──────────────────────────── Meaning

Phonology   Morphology   Lexis   Syntax   Semantics

Pseudo-Antimetabole: chiastic repetition of vehicles without the interpretants (form with different meaning)

Implied Antimetabole: a phrase that evokes its inverse, a well-known expression, forming a kind of mental antimetabole, a type of allusion

UNIVERSITY OF
WATERLOO

Antimetathesis

$$F(p^A \dots p^B \dots p^A \dots p^B)$$

- She sells sea shells by the seashore

- Champagne for my real friends, real pain for my sham friends.

- Light a fire, fight a liar.

- Don't sweat the petty things and don't pet the sweaty things.

- Blanche: You're not as gallant as when you were a boy. John: You're not as buoyant as when you were a gal.

UNIVERSITY OF
WATERLOO

Morphological Chiamus

$$F(m^A \ldots m^B \ldots m^A \ldots m^B)$$

- You marketise our education, we educate your market.
- Friendly Americans win America friends.
- Most of the problems in life are because of two reasons: we act without thinking or we think without acting.
- Doing what you like is freedom. Liking what you do is happiness.
- Quitters never win and winners never quit.

Syntactic Chiamus

$$F(XP^A \ldots XP^B \ldots XP^B \ldots XP^A)$$

- When Adam first of men To first of women Eve.

- It is boring to eat; to sleep is fulfilling.

- Despised, if ugly; if she's fair, betrayed

- By day the frolic, and the dance by night

- He went to the country, to the town went she.

- He came in triumph and in defeat departs.

- Each throat was parched, and glazed each eye.

Antimetalepsis

$$F(I^A \ldots I^B \ldots I^A \ldots I^B)$$

- Old King Cole was a merry old soul And a merry old soul was he.

- T]he new metaphor - the brain as a calculating machine - is ... fraught with the danger of anthropomorphizing the machine and mechanizing the man

- You can know the position of an electron but you cannot know where it's going... Or you can know its direction, but you cannot know its position.

- It was he who, in a manner of speaking, muddied waters that became too clear or clarified those that had grown murky.

- I think it is easier to take someone in the fishing industry and teach him about currency trading … than to take someone from the banking industry and teach them how to fish.

Pseudo-Antimetabole

$$F(V^A \ldots V^B \ldots V^B \ldots V^A)$$

- Women don't want dates on their condoms; they want condoms on their dates.

- StarKist doesn't want a tuna with good taste. StarKist wants a tuna that tastes good.

- I'll never forget my first corn-silk corona. I was weak for days in a daze for weeks.

- The right to bear arms is slightly less ridiculous than the right to arm bears.

- It was much easier to take Kuhn out of Harvard than Harvard out of Kuhn.

Implied Antimetabole

$F(W^A \ldots W^B)_{Allude}[W^B \ldots W^A]$

- The Wrath of Grapes.

- Work is the curse of the drinking class.

- Britannia waives the rules.

- Time wounds all heels.

- Aw Harold, I've been too f*cking busy. Or vice versa, if you prefer.

A term for carrying out an antimetabolic transform

UNIVERSITY OF
WATERLOO

Chiasmus, cognition, computation; computation, cognition, chiasmus

Rhetorical Figures

- *F, f*
- Rhyme
- Epanalepsis

The Chiastic Suite

- Antimetabole
- Iconicity
- The other six

$F(W^A \ldots W^B \ldots W^B \ldots W^A)$
f(irrelevance-of-order)
f(reciprocal specification)
f(reciprocal influence)

quantity
sequence
balance

UNIVERSITY OF
WATERLOO