The antimetabole construction

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Abstract

There is a widespread construction of proximally reversed lexical repetition first noticed by ancient rhetoricians, the antimetabole ("all for one and one for all"). This construction has a highly regular and identifiable form aligned with a constrained set of four motivated functions, shaped by the interaction of three iconicity principles. It is pervasive in many languages, registers, and genres; perhaps all. Taking this construction as prototypical of the rhetorical figures called *schemes* (in partnered contrast with tropes, like metaphor and metonymy, which have been the focus of much linguistic research in recent decades), I argue that such constructions call for increased linguistic attention, with the promise of a cognitive-linguistic payoff similar to what we have gained from research into metaphor and metonymy. In particular, just as metaphor is a linguistic realization of the cognitive affinity for analogy, antimetabole is not only another realization of that affinity, through its iconic functionality, it is the linguistic realization of further cognitive affinities—for repetition, symmetry, and contrast.[*]

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The antimetabole construction

It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts.

—Sherlock Holmes (Doyle 2003 [1891]: 189)

"Instead of the taxonomic linguist having a just complaint against the mentalist for appealing to occult entities," Jerrold Katz once wrote in the pages of this journal, "the mentalist has a just complaint against the taxonomic linguist for excluding from linguistics, *a priori* and arbitrarily, just what it is most important for this science to do" (Katz 1964:137). Katz's article turns the tables on a school of linguists (albeit, a somewhat hypothetical school) who held that a foundational interest in the mind was scientifically misguided. The penultimate sentence in Katz's argument, just quoted, epitomizes his brief against those linguists—they have their methodological commitments completely wrong, in diametric contrast to the (Katzian and Chomskyan) mentalist position they reject, which has its methodological commitments completely right—and it does so by way of a highly productive and ubiquitous construction reverse lexical repetition (*taxonomic linguist … mentalist*; *mentalist … taxonomic linguist*), a construction that has suffered almost complete linguistic neglect, the antimetabole.

A few years before Katz, you might recall, a more famous antimetabole was uttered by President John F. Kennedy in his inaugural address. In a phrase that has become renowned in the history and lore of twentieth century America, Kennedy said:

1. And so, my fellow Americans: ask not what your country can do for you—ask what you can do for your country. (Kennedy [and Sorensen] 1961a)

Kennedy's (and speech-writer Ted Sorensen's) phrasing has become proverbial in the American consciousness for the way in which it captures the spirit of a particular historical moment, the ethos of a particular administration, and the aspirations of a particular generation. Lots of more prosaic formulations, by Kennedy and others, surely expressed that confluence too, but they left a distinctly less memorable impression. Why? Kennedy and Sorensen tightly match form to function—the iconicity of rejecting one ethos and adopting the opposite one—by reversing the terms of reference. And that form is, further, cognitively very sticky.

This form, known to rhetoricians for millennia, has an oppositional, duplicative, and symmetrical structure that plays to human cognitive dispositions. We respond to contrasts, repetitions, and symmetries in ways that we don't respond to blander formulations. But the

Kennedy-Sorensen expression is not pure pattern. It is not music. It is a linguistic utterance, an arrangement of words. It has semantic content, illocutionary force, and perlocutionary effect. It serves a specific socio-historical purpose. It articulates a perceived turning point in US culture and politics—not just a call to service, but a repudiation of the entitlement to service. The structure they use, its name coming etymologically from 'turning about (*metabole*) in the opposite direction (*anti*)', elegantly captures the deontological reversal Kennedy and Sorensen wanted, in the temporal (and, in print, spatial) reversal of its key NP arguments. This formulation has become so memorable, so widely known, so easily shared, so frequently invoked and quoted and recited because of two factors, the cognitive affinities humans have for its formal properties (opposition, repetition, and symmetry) and the schematic congruence with which the structure matches the functions that formulation serves.[1]

I argue in this paper for two aligned claims. Firstly, I make the simple data-driven, inductive argument that there is a very widespread construction—more precisely, a small family of such constructions—long overlooked by linguists.[2] This construction has a highly regular and identifiable form and a constrained set of functions, hinging on iconicities of sequence, quantity, and proximity. Its linguistic neglect, in fact, may be due entirely to its distinct form, which has inescapable aesthetic dimensions. Perhaps it is just too pretty for linguists. Secondly, I argue for a richer conception of linguistic constructions. This richer conception, which recognizes that form-function correspondences need not fear aesthetics, furthers the reintegration of rhetorical figures into grammar begun with the renewed interest in tropes, such as metaphor and metonymy, that continues to inform a burgeoning research programme that has developed in linguistics over the last several decades. While all tropes are figures, however, not all figures are tropes; nor are tropes alone among the figures for their cognitive resonances. My argument draws on a linguistically forsaken domain of figuration, schemes.

The specific scheme, antimetabole, anchors both of my arguments. It is the substance of one, the paradigmatic foundation of the other. The antimetabole construction looks superficially to be a rare and fanciful rhetorical flourish, something reserved for exotic linguistic circumstances, like inaugural addresses, but it is surprisingly common, found even in the comparatively flat prose of Jerrold J. Katz, and therefore it reveals a great deal about the deep cognitive affinities and the role of iconicities in shaping our daily use of language.

Katz and Kennedy-Sorensen epitomize positions that are equally positive and negative—polar repudiations and affirmations—something the antimetabole construction does rather well. By lining up two opposing word sequences, their expressions manifest a kind of amalgam or compound iconicity. They both leverage quantity (through repetition), sequence (through the salience of reversing a lexical string), and proximity (the reversed repetition is virtually immediate), in a syntax of negation, to generate a very specific meaning, conceptual reversal. The iconicity of two antithetical word sequences, when one is explicitly rejected (cued by *instead* in Katz's case, *not* in Kennedy-Sorensen's case) and replaced by the other, lends itself precisely to the arguments they each offer. But conceptual reversal is only one of the basic functions aligned with the antimetabole form. There are three others—comprehensiveness, denial of priority, and reciprocality—all of which similarly follow from the structure of reverse repetition and all of which similarly amalgamate principles of iconicity.

Constructions

> *Construction Grammar sees function and form as inseparable from each other.*
>
> —Mirjam Fried and
> Jan-Ola Östman (2004: 12)

It has become increasingly clear, with the advent of computational corpus linguistics, the growing attention to function, and the greater understanding of neuro-cognitive architectonics guiding language study at the beginning of the twenty-first century, that the notion of construction, in which form and function are non-arbitrarily linked, must be at the forefront of any theory of language use.[3] People speak and write in a wealth of diverse lexical strings, falling into a wealth of templates, each with a specific range of functional deployments. Some of these constructions come and go. Some are here to stay. Some seem intrinsic to a particular register, or dialect, or language, or family of languages; some, to thought itself.

In the come-and-go category, take the briefly and wildly popular "…not!" tag from American English of the early 1990s. It emanated from the "Wayne's World" segment of the television show, *Saturday Night Live*, which featured a distinctive caricature of the suburban American teen-age sociolect. The construction sported a simple statement, usually positive or pleasant, followed by a brief pause and quickly culminating in an emphatic "not!" that negated the preceding statement, as a kind of crude sarcasm marker. In the movie extrapolated from the

segment, for instance, when Wayne abandons his partner Garth, Garth looks at the camera and says

2. I'm having a good time ... not! (Michaels and Spheeris 1992).

The construction was rampant in the media and around water coolers for a year or so, and then it was gone, a disappearance no doubt hastened by overkill and by the insipid resulting movie, which garnered reviews that capitalized on the catchphrase, as in

3. "*Wayne's World*: Awesome ... Not!" (Turran 1992).

The "…not!" example flared into spectacular prominence before disappearing, but transient constructions might be far less visible—local to a pack of middle-school adolescents in one neighbourhood, for instance, or to a family or even to a couple. They might circulate among small clusters of speakers who have specific word juxtapositions and phrases known only to them, or with specific resonances only for them. In the other direction, constructions can be very general, such as the abstract form classes known as active and passive. Constructions also compound easily and any given utterance might realize a number of constructions, such as 1, which realizes, among other constructions, the stock U.S. political opening, "my fellow Americans," the archaic/Biblical "ask not" (rather than "do not ask"), and two instances of the imperative form class.

Although the resistance to this next claim is heavy, constructions might also be universal, present in all languages, natural to all speakers. Stretching my neck out further, since the available data is very limited (most languages are gone, the majority of the rest are disappearing daily, and no one has done the relevant research in the small sliver of human languages available to investigate), there are strong reasons to believe that the antimetabole is one such construction. I will later argue this point, relying on general cognitive affinities—specifically, our aesthetic and mnemonic propensities for repetition, contrast, and symmetry—and on the basis of that argument, contest the resistance to universal constructions. As a key part of this argument, taking my lead from Mark Turner, I draw another thread into the consideration of grammatical constructions, rhetorical figures. Turner has observed (to an unfortunately muted reception by linguists) that the "justifications for construction grammar are essentially identical to those for the original classical rhetorical program of analyzing figures" (1998: 56). In particular, form and function in both approaches are typically regarded as reinforcing each other, or otherwise coupling nonarbitrarily.

Moreover, while rhetorical figures are sometimes regarded as particularly extravagant constructions these days, reserved for poetic or oratorical occasions, the classical tradition always saw them as continuous with ordinary or 'literal' or (as I prefer) 'bland' uses of language—singled out for labelling and analysis only for the way they epitomized the form/function coupling in specific expressions, not for their rarity or floridity. Narrative, we all know, reaches heightened expression by novelists and gets intense scrutiny from literary critics. But everyone tells and responds to stories. In the same way, figures have been cultivated by poets and orators (and novelists), and studied by rhetoricians, for their most effective deployments. But all speech relies on the same basic resources that flower as deliberately crafted figures. Rhetorical figures are not speciality manoeuvres executed only by poets and orators, just as running and jumping are not speciality manoeuvres of professional athletes. Everyone runs and jumps. The relative few who can't run or jump have fallen out of synch with the evolutionary template of the species, because of injury or genetic misfires. The relative few who can run or jump extraordinarily well, have genetic advantages (and usually social advantages to go with the genetic ones, the time and resources to pursue devoutly a single activity)—like poets and orators.

Jeanne Fahnestock makes this point of the classical tradition very cogently in her outline of Aristotle's approach to figures. At no point in the relevant sections of his *Rhetoric*, she notes, does he claim that these constructions serve a merely

> ornamental or emotional function or that they are in any way epiphenomenal. Instead, Aristotle … suggests that certain devices are compelling because they map function onto form or perfectly epitomize certain patterns of thought or argument (Fahnestock 1999: 26).

The sort of form/function alliance Aristotle charts is precisely consonant with the goals of Construction Grammar, which treats constructions as "stored pairings of form and function" (Goldberg 2003: 219). *Pairings*, it turns out, may be too rigidly binary to capture accurately the form/function associations of most constructions; *alignments* is more accurate. Forms align with a number of functions, with a range of one to many.

Moreover, the professed goal of Construction Grammar—unlike the goals of approaches with commitments to such metaphysical categories as linguistic competence (to the exclusion of linguistic performance) or core grammar (to the exclusion of peripheral grammar)—is "in principle to account for the entirety of each language" (Kay & Fillmore 1998: 1). Minimally, the

antimetabole is a construction of English, and of many other languages. It is "an *abstract*, representational entity, a conventional pattern of linguistic structure that provides a general blueprint for *licensing* well-formed linguistic expressions" (Fried & Östman 2004: 18; their emphases). For the construction itself, this warrant sufficiently justifies its analysis. But there is another project at the back of my argument, insinuated above—the continued reintegration of rhetorical figures into grammar that characterizes much contemporary linguistics—and that project calls for a brief account of figuration before proceeding.

Rhetorical Figures

Do I know what "rhetorical" means?

—Homer Simpson (Appel 1995: 17:45)

Linguists have made considerable progress over the last three decades by attending to a very narrow slice of rhetorical figures. Sometimes their insights have derived from the work of earlier scholars who were directly familiar with figures in the rhetorical tradition (or with preEnlightenment grammatical traditions that also embraced figures)—scholars such as Roman Jakobson and Karl Reisig—but most often the insights have come from linguists with vanishingly little knowledge of these traditions, and have come at the expense of a fuller understanding. In particular, much of this work has pitched itself against a putatively traditional view that saw figures as "a matter of extraordinary rather than ordinary language" (Lakoff and Johnson 1980:3), and this view (the argument continues) "is empirically false, because [as the chief, sometimes sole example] metaphor is conceptual and everyday thought is largely metaphorical" (Lakoff and Johnson 1999: 118). But such an alleged view was empirically falsified a very long time ago. One cannot get more traditional than Marcus Fabius Quintilianus, for instance, who, in the first century of the Common Era, calls metaphor, synecdoche and allegory "so natural [that they are] often employed unconsciously" (8.6.4), illustrating this claim with a set of examples from ordinary speech that should have a very familiar cast to contemporary cognitivists. "[T]o fight firm; to aim at the throat, and, to draw blood" were common phrases in the Roman period that manifest the analogic frame, ARGUMENT:WAR. Further, Quintilianus uses this kind of analogic framing to demonstrate that tropes structure "[our] most common understandings, and our daily conversation" (8.6.51).[4]

This two-millennial scholarly amnesia aside, however, contemporary research into the tropological character of daily thought and language is increasingly robust,[5] so robust that I hereby take it as given that the human mind has natural affinities which express themselves not only in 'artful' tropes, but in wider patterns of talk and thought that are in synch with such tropes, and I seek to expand these insights to recognize the centrality of another class of rhetorical figures in everyday talk and thought, schemes.

Firstly, I need to bring a little more precision to the terminology of rhetorical figures, which will both sharpen the implications of my argument overall and clear away some brush for others interested in working on the figurative dimensions of language in a broader way than is customary in current linguistics. One of the difficulties in utilizing the millennia of figuration research is the terminological agglomerate it has delivered to the twenty-first century. The devices and manoeuvres that have accreted under the term *rhetorical figures* are many and mixed, and the labelling reveals multiplex theoretical commitments, but a four-way classification puts them into reasonable order: schemes, tropes, chroma, and moves.[6] This classification sets the table for the arguments and analyses that follow, especially arguments for the mutual relevance of research already pursued by linguists, into figures like metaphor and metonymy, and the lines of research I am advocating, into figures like antimetabole.

The scheme and trope categories are among the oldest in figuration, and, construed according to a simple *signans/signatum* division, the most basic and the easiest to see. Schemes are formal deviations, shifts away from conventional expectations in the usage of *signantid*. Tropes are conceptual deviations, shifts away from conventional expectations in the usage of *signata*.[7]

Here are some prototypical schemes:

4. Georgie Porgie pudding and pie,
   Kissed the girls and made them cry.

The schemes in 4 include rhyme (repetition of one or more concluding syllabic nuclei and codas—*Georgie*/*Porgie*, *pie*/*cry*) and alliteration (repetition of word- or syllable-initial consonants—*Porgie*/*pudding*/*pie; kissed*/*cry*). Ordinary language has words and phrases that exhibit rhyme (*hot pot*, *nit-wit*, *willy-nilly*, *red sky in morning, sailors take warning*) and alliteration (*dodo*, *mish-mash*, *cuckoo*, *look before you leap*), but they stand out against a backdrop of words and expressions in which syllablic nuclei+codas and initial consonants don't

regularly match each other in proximal syllables or words. When rhyme or alliteration show up in flurries, or in strategically isolated expressions, we know we are in the presence of special sorts of language events, like poetry, oratory, or county music. But that does not mean either (1) that rhyme and alliteration depend on resources or dispositions not present in ordinary language or (2) that rhyme and alliteration are themselves absent from ordinary language. Nor is there a 'traditional view' of rhyme and alliteration that makes such claims.

Here is a prototypical trope, personification (non-human, usually inanimate or abstract, entities represented as exhibiting human emotions, thoughts, or actions):

5. Only the champion daisy trees were serene. After all, they were part of a rain forest already two thousand years old and scheduled for eternity, so they ignored the men and continued to rock the diamondbacks that slept in their arms. It took the river to persuade them that indeed the world was altered. (Morrison 1981: 9)

Ordinary language exhibits personification (*Mr. Clean*, *I'm a mac / I'm a PC*, *the weather is mocking me*). Indeed, most languages have very basic tools for personification (a writ*er* is a person who writes, a sail*or* is a person who sails; the agentive morpheme takes the word for an activity and converts it to the word for a person who habitually or professionally performs that activity), and, as with all tropes, the salience of a given personification can recede with the passage of time and the growth of familiarity until it goes largely unnoticed, so that our daily expressions are littered with inconspicuous-unto-invisible personifications (*the camera loves her*, *opportunity knocks*, *time waits for no one*—see Lakoff and Johnson 1980: 33-34). When personification occurs in novel and striking ways, it is noticed and usually taken as evidence of design, of deviation away from a basic things-are-things level of signification. Tropes are the sole figurative concern of Cognitive Linguistics, and only a few of those: metaphor, metonymy, synecdoche.

The two other two categories beyond schemes and tropes are less established, and the rhetorical instruments they cover are often mixed with tropes in other taxonomies, or show up in a separate (though frequently unsystematic) classification altogether, such as 'figures of thought.' But those categories, chroma and moves, provide useful ways to understand the range of rhetorical devices and manoeuvres that have traditionally been called figures despite not sorting neatly onto either side of the *signans*/*signatum* boundary. Chroma are deviations of

intention. Moves are specific discourse strategies. They are deviations of presumed default discourse patterns.

Here is a prototypical chroma, erotema, known colloquially as a 'rhetorical question' (see, also, the epigram for this section):

6. If you prick us, do we not bleed? (Shakespeare, *Merchant* 3.1)

The default function of a question is to elicit information. But erotema deploy with different intentions. Shylock is not looking for an answer. He is making an assertion: we are just like you. You bleed. We bleed. His intention is not to solicit information, but to assert it. Erotema show up regularly in daily language (*What am I, stupid?! Is the Pope Catholic? Do I look like I care?*), and their usage makes clear that chroma rely more broadly on the context of utterance in a way that schemes and tropes do not. In Group μ's terms, chroma are "in principle circumstantial" (1981: 131). They are understood, that is, as deviations not with reference to signs *per se*, but to the context in which signs are situated. We need to know the circumstances of Shylock's utterance are such that he is not seeking information about Jewish anatomy, and that the circumstances of the ordinary language examples are such that the speaker would not request an assessment of her intelligence, or information about the Pope's religious affiliations, or an affect diagnosis.

Rhetorical moves are strategic manoeuvres, often at the discourse level, outside the familiar linguistic domains of form or meaning, and the pragmatic domain of intention. They are quite different from schemes, tropes and chroma—not figures at all, properly understood. But they have historically been lumped in with figures, so it is useful to discriminate them from figures of more direct linguistic interest. Here is a prototypical move, paralipsis (assertion in the guise of avoiding assertion):

7. And lately, when, by procuring the death of your former wife, you had made room in your house for another, did you not add to the enormity of that crime, by a new and unparalleled measure of guilt? But I pass over this, and choose to let it remain in silence, that the memory of so monstrous a piece of wickedness, or at least of its having been committed with impunity, may not descend to posterity. I pass over, too, the entire ruin … (Cicero 1833 [63 BCE]: 1.159)

Cicero feigns a wish to preserve delicate posterity from corruption by a record of monstrous wickedness, while making sure the magistrates get to hear a catalogue of that wickedness.[8]

Moves, again, are not really figures, but they have this in common with figures: they also permeate ordinary language. Paralipsis, for instance, is effectively the same tactic we call *innuendo* when it occurs in gossip.[9]

Before leaving this incredibly brief account of figuration, let's be clear that this taxonomy does not imply that only schemes have form, only tropes have conceptual content, only chroma embody intention, only moves evince strategy. Every semiotic event evinces form and meaning (*signans* and *signatum*), and every communicative event evinces intention. None of these figural factors can be isolated in some elemental purity. They are features of symbolic interaction, not of matter. The taxonomy merely notes that sometimes the form or the concept or the intention has additional salience, understood as a divergence from default expectations (perhaps even an ideally bland set of expectations of the sort imagined by Chomsky's "completely homogeneous speech-community"—1965: 3). Those salient departures are rhetorical figures (among which some strategies of argumentation—moves—have historically been classed).

Nor is there any need to pretend that these classifications are resolutely discrete. Linguistic categorization, even for such long established and methodologically fruitful notions as noun, is replete with squishes and fuzziness (Lakoff 1973, Ross 1973, Aarts et al. 2004, Taylor 2004), and the categories of figuration are no more recalcitrant than those of morphology or syntax. Indeed, as I will later argue, the antimetabole construction serves as a kind of nexus for schemes and tropes. But there are clear, central representatives of each category, prototypes, by which we can understand their essential functions. Rhyme is a prototypical scheme, metaphor a prototypical trope, and erotema a prototypical chroma (and paralipsis is a prototypical move).

Figures, further, reflect the cognitive affinities of language users; that is, of humans. Analogy is the most useful example on this front because it has been so well explored. Metaphor activates an analogic affinity, the natural disposition we have for cross-domain mapping or blending. Metonymy activates an associative affinity. Synecdoche activates a meronymic affinity. Rhyme and alliteration capitalize on our affinity for repetition, antithesis for opposition, and so on. These general affinities operate at all levels of linguistic representation, shaping the 'ordinary' uses as well as the more saliently figurative uses of language, which brings us now to the antimetabole construction.

Antimetabole

Suit the action to the word, the word to the action.

—William Shakespeare (*Hamlet* 3. 2)

The lexical scheme, antimetabole, is best described as reversed proximal word repetition, in practice usually restricted to two words and easily schematized in the abstract as ABBA.[10] It is frequently—and somewhat understandably, given the breathtakingly perfect form/function coupling it can achieve—regarded as a "rhetorical circus trick" (Poole 2006), a fancified and extravagant device only for the rhetorically gifted, after years of specialty training and practice. You need to be a Kennedy to try it without a net. Let's put that to the lie before going any further:

8. A lot of guys know more about hockey than me, but nobody knows hockey more than me. (Don Cherry, qtd in Baines 2012)

Don Cherry is a hockey commentator on Canadian television, a high-school drop-out with a tough-guy, beat-'em-in-the-alley view of the sport, more famous for gruff colloquialisms than classical magniloquence. A not ill-fitting description of Mr. Cherry pronounces him "loud, anti-intellectual, unrefined, xenophobic" (Darian 2012). Not a Kennedy, not a Sorensen, not eloquent; but from his lips, an antimetabole. It is not a particularly *good* antimetabole—the flipping of *hockey* and *more* involves two different lexical categories and two different stress patterns—but 8 is a clear antimetabole. It is certainly not an accidental repetition of two words, coincidentally being reversed the second time.[11] Mr. Cherry has a specific point here, and his lexical reversal serves that point: asserting his authority in matters of hockey while confessing that other commentators might seem (on the basis of knowledge) to have more authority about hockey. The point is somewhat mangled, it is true, but the reversed terms signal a reverse ranking in Cherry's utterance. The superficial ranking (on a quantifiable product metric, knowledge of hockey) puts others ahead of him, but the authentic ranking (on an experiential process metric, knowing hockey) puts him ahead of all others, raising street-smarts, or rink-smarts, above book-smarts, which is fully in keeping with Mr. Cherry's well-known populism. Like the Kennedy-Sorenson antimetabole, this one offers a correction. The true order of things is not AB. It is BA.

A few more examples on this front:[12]

9. You only need two tools in life — WD-40 and duct tape. If it doesn't move and should, use the WD-40. If it shouldn't move and does, use the duct tape. (Stafford 2013)
10. Keep your church out of my sex life and I won't have sex in your church. (Melissa of Craftgasm 2012)

11. I don't understand a transgender. I don't understand. Is it a guy dressed up like a girl, or a girl dressed up like a guy? (Rob Ford, qtd in Spurr 2012)
12. We need to know if Rob Ford is a mayor and a part-time football coach or a football coach and a part-time mayor. (MaGuire 2012)

Example 9 is a familiar Facebook meme; 10 is from Pinterest. Social media is a hive of overt figuration, prominently including antimetaboles. The other two are from a more traditional medium, the newspaper, albeit from a rather loutish tabloid. The speaker of 11 is, if anything, more famously uncultured than Mr. Cherry, and certainly less articulate (Rob Ford, mayor of Toronto at the time of this utterance); the cultural or educational provenance of the author of 12 is unknown. While some of these authors may have been trying to be clever (especially for examples 9 and 10), it is a good bet that they were not particularly conscious of 'being rhetorical,' and a near surety that none of the speakers had ever studied the figure or could name it. But notice again, that the reversals are not accidental. None of them are 'merely' figurative expressions, used solely for aesthetic or emotional impact. Mr. Ford and Mr. Maguire, in particular, are using the reversal to strategically epitomize a conflict of 'priority.' Mr. Ford is expressing confusion over the 'real' gender of a transgender individual (along with some factual confusions that are not relevant to the antimetabole). Mr. Maguire, who is writing about Mr. Ford, is expressing concern that Mr. Ford has his coaching/mayoral priorities upside down. [13] In the social-media examples, 9 uses the reversal to set up a comprehensiveness of coverage (all mechanical problems are problems of movement, and all solutions are either to facilitate or hinder that movement), while 10 makes a sort of threat based on reciprocity (use your religion to interfere with my sexual practices, and I will use my sexuality to interfere with your religious practices).

But, yes, the antimetabole construction does have a long history before Messrs Cherry, Ford, and Maguire, and before the advent of social media. And, yes, that history, as most histories do, charts illustrious examples, in illustrious discourses. Mundane examples attract only passing attention. There is every reason to believe, however, that numberless antimetaboles, in numberless corners of numberless languages, have come and gone without being recorded anywhere. But all this loss is not a problem. More than enough examples remain to support my argument. In among the illustrious, many unexpected antimetaboles show up—unexpected, that is, if your expectations favour the rhetorical-circus-trick tradition of grand oratory and ornate

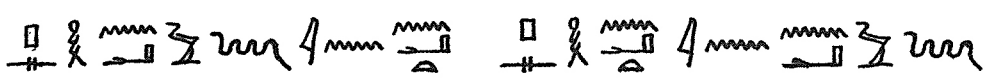
poetry. Still, let us start with the grander historical footprints of the antimetabole construction, because the illustrious examples are importantly elucidative too.

Inscribed almost 5,000 years ago, in the Sumero-Akkadian story of Gilgameš and Enkidu, we find the lines:

13. … when the heavens had been separated from the earth, when the earth had been delimited from the heavens …
[an ki-ta ba-da-ba$_9$-ra$_2$-a-ba / ki an-ta ba-da-sur-ra-a-ba] (*Gilgameš* c.1.8.1.4; Faculty of Oriental Studies 2006)

The antimetabole construction is in fact a regular feature of Sumero-Akkadian texts, [14] but not just Sumero-Akkadian texts, ancient oral and emergent literary texts generally:

14. The male serpent is bitten by the female serpent, the female serpent is bitten by the male serpent.
[psh n'w een n't, psh n't een n'w]



(Egyptian Pyramid Text § 233, c2200 BCE; Faulkner 1969: 1.55; Sethe 1960: 1.131)[15]

15. One who knows does not speak. One who speaks does not know.

(Archaic Chinese, c600 BCE; *Tao Te Ching* 56; Laozi 2005, 124; translation by D.C. Lau, Laozi 1989, 81)

16. And God created man in His own image, in the image of God created He him; male and female created He them.
[א֣וֹתוֹ בָּרָ֣א אֱלֹהִ֔ים בְּצֶ֖לֶם, בְּצַלְמ֣וֹ הָאָדָ֑ם-אֶת אֱלֹהִ֖ים וַיִּבְרָ֥א. זָכָ֥ר וּנְקֵבָ֖ה, א֥וֹתָם בָּרָ֣א] (Hebrew, c500 BCE; Genesis 1.27)

17. Immortals become mortal, mortals become immortal. They live in each other's death and die in each other's life.
[ἀθάνατοι θνητοί, θνητοὶ ἀθάνατοι, ζῶντες τὸν ἐκείνων θάνατον, τὸν δὲ ἐκείνων βίον τεθνεῶτες] (Greek, c 500 BCE; Heraclitus Fragment 67; Patrick 1889: 100, 128)

18. For a mother does not injure (her) son, nor (does) a son injure his mother.
[na hi mātā putram hinasti, na putro mātaram] (Vedic Sanskrit, c300 BCE; Gonda 1959: 80)

The role of the antimetabole construction in oral texts is noteworthy for the obvious implication that it must serve basic mnemonic and bardic-composition functions. It provides a scheme into which words can be inserted, and (often in concert with other figures) creates sticky expressions that can be recycled in other specialized texts, like poetry and oratory, as well as in ordinary language, as maxims and proverbs. Among the general functions served by figures in an oral culture is to focalize portions of an oral 'text' in roughly the way that italics, bolding, blank space, and so on, focalize portions of a text in print culture, calling them out for extra attention and easier retrieval. As a class, schemes are constructions of salience.

I will now assert without demonstration, in the interest of space and efficiency, that the antimetabole construction shows up widely in literature and oratory, and related discourses (politics, religion, stand-up comedy, popular music, marketing, social media memes[16]), and provide evidence only for its appearance in some discourse genres not particularly known for rhetorical flourish, where it is perhaps less expected. (I will, however, return to literature, song lyrics, and the like somewhat later, to illustrate the small range of functions expressed through the antimetabole construction.)

Philosophy

19. [W]e are no less ignorant of that power on which depends the operation of mind on body, or of body on mind. (Hume 1758: 323)
20. [W]hen you look into the abyss, the abyss also looks into you.
[[W]enn du lange in einen Abgrund blickst, blickt der Abgrund auch in dich hinein.] (Nietzsche 1899: 105 [Aphorismus 146]).
21. It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness.
[Nicht das Bewußtsein bestimmt das Leben, sondern das Leben bestimmt das Bewußtsein] Marx 1977 [1859]: 211)
22. The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. (Dewey 1997 [1938]: 25)

23. 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.' (Žižek 2005: 158)

Proverbs, maxims, clichés, ritual utterances

24. When the going gets tough, the tough get going. (traditional; often attributed to Joseph Kennedy or Knute Rockney)
25. A place for everything and everything in its place. (traditional)
26. Do unto others as you would have others do unto you. (traditional; the "Golden Rule")
27. Football is a gentleman's game played by hooligans. Rugby is a hooligan's game played by gentlemen. (traditional, especially at prep schools and elite universities)[17]
28. God, grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference. (traditional; the "Serenity Prayer" adopted by Alcoholics Anonymous)

Science

29. If you press a stone with your finger, the finger is also pressed by the stone. If a horse draws a stone tied to a rope, the horse (if I may so say) will be equally drawn back towards the stone: for the distended rope, by the same endeavour to relax or unbend itself, will draw the horse as much towards the stone as it does the stone towards the horse.

    [Siquis lapidem digito premit, premitur & hujus digitus a lapide. Si equus lapidem funi allegatum trahit, retrahetur etiam & equus aequaliter in lapidem: nam funis utrinq; distentus eodem relaxandi se conatu urgebit Equum versus lapidem, ac lapidem versus equum]. (Newton, 1803 [1687]: 1.15; 1687: 13)
30. Life is the germ and the germ is life.

    [La vie, c'est le germe et le germe, c'est la vie] (Pasteur 1886 [1883]: 33; see F. Faraday 1883: 97)
31. Take the extreme case in which all organisms with T also have T*, and all with T* have T. ... So properties T and T* are co-extensive if everything with T also has T*, and everything with T* also has T. (Godfrey-Smith 2010: 30)

32. Hence the wire moves in opposite circles round each pole and/or the poles move in opposite circles around the wire. (M. Faraday 1932 [1821], qtd in Fahnestock 1999: 145)

Linguistics

33. Constructed language systems are judged by the linguist according to the degree to which they approximate a natural language; natural languages are judged by the logician according to the degree to which they approximate efficient, well-constructed language systems. (Bar-Hillel 1954: 235)
34. In poetry, where similarity is superinduced onto contiguity, every metonymy is slightly metaphoric, every metaphor has a metonymic edge. (Jakobson 1960: 370)
35. Some transformationalists argue that all conjoined structures are the result of derived conjunction. They affirm that sentences such as "Mary and Bob are similar" derive from sentence pairs such as the following:

    Mary is similar to Bob.

    Bob is similar to Mary.

    The above sentences are examples of symmetric predicates (predicates in which if NP_1 — X — NP_2 is true, then NP_2 — X — NP_1 is true, where X represents the verb phrase). (Bornstein 1977: 203)
36. I maintain that *X resembles Y* and *Y resembles X* are semantically distinct (even granting their truth value equivalence): The former characterizes X with reference to Y, and the latter describes Y with reference to X. We can similarly employ either *X is above Y* or *Y is below X* to describe precisely the same conceived situation, but they differ in how they construe this situation; in the former, Y functions as a point of reference—a kind of landmark—for locating X, whereas the latter reverses these roles. (Langacker 1986: 10)
37. Unlike the typical problems of semantic composition discussed in the formal semantic literature, where the meaning of the whole is at least in part determined by the meanings of the parts, the meaning of the parts seems to be determined in part by the meaning of the whole. (Croft 1993: 335)

Mathematics and logic

38. m + n = n + m (any textbook)

39. mn = nm; m x n = n x m (any textbook)
40. m - n ≠ n - m (any textbook)
41. m/n ≠ n/m; m ÷ n ≠ n ÷ m (any textbook)
42. (p & q) ↔ (q & p) (any textbook)
43. (p v q) ↔ (q v p) (any textbook)

There's more. A full account of English constructions would have to include not just the antimetabole construction, but such antimetabolic sub-constructions as the familiar easier-to-take-the-A-out-of-B-than-to-take-the-B-out-of-A idiomatic template:

44. After twenty-five years in the field. I've traded the front seat of a 4 x 4 for a swivel chair and a desk. The change did not come easily for me. As the old saying goes — it's a lot easier to take the man out of the field than to take the field out of the man. (Oklahoma DWC 1995: 61)
45. It was found easier to take the evacuee out of the slum than to take the slum out of the evacuee. (Waller 1940: 30)
46. [I]t was easier to take the girl out of the brothel than to take the brothel out of the girl. (Walker 2011: 72)
47. It was much easier to take Kuhn out of Harvard than Harvard out of Kuhn. (Fuller 2001: 387)
48. I could take Tarzan out of the jungle. *Could I take the jungle out of Tarzan?* (Maxwell 2012: 254)

Indeed, antimetabolic expressions are so common and predictable that they can be activated by allusion: [18]

49. The Wrath of Grapes (Egan 2012)[19]
50. Time's fun when you're having flies. (Kermit the Frog; Grothe 1999: 117)
51. A hard man is good to find. (Mae West; see Sherrin 2008: 209)
52. Britannia waives the rules. (Douglas and LeCocq 1934)
53. Time wounds all heels. (Groucho Marx, in Cummings and Buzzell 1940)

These expressions only work as witticisms if the hearer or reader applies a kind of antimetabole transform to get the familiar phrase ("The Grapes of Wrath," etc.). Then there's this example, the answer Dorothy Parker gave to Harold Ross, her editor at the *New Yorker*, when he asked why she hadn't submitted her overdue column:

54. Aw Harold, I've been too fucking busy. Or vice versa, if you prefer. (Kunkel 1995: 156)

Check that second 'sentence' again: antimetaboles are so natural and prevalent that we have a commonplace, epitomizing Latin shorthand, *vice versa*, that issues an instruction to carry out an antimetabole transform (Fahnestock 1999: 125). One might even turn to basic syntax and note phenomena like these:

55. a) Tommy kissed Dorthea
    b) Dorthea was kissed by Tommy.
56. a) Tommy kissed Dorthea
    b) It was Dorthea Tommy kissed.
57. a) Tommy has kissed Dorthea
    b) Has Tommy kissed Dorthea?
58. a) Tommy gave Dorthea a kiss.
    b) Tommy gave a kiss to Dorthea

I appreciate that many readers, at this point, may well be thinking we have got a long way from rhetorical figures. Nor would I want to claim that 55 – 58 are figures in anywhere near the traditional sense, which would completely collapse the distinction between construction and those particular constructions known for their heightened aesthetic and salience effects. But 55 – 58 do illustrate the ubiquity of symmetrical reversal in language and thereby point to the cognitive dispositions that underlie antimetabole in much the way that analogic thought underlies metaphor (simile, conceit, reification, …). Other of our examples above illustrate the interaction of form and function that make antimetaboles practically inevitable for certain significations, even when aesthetic effects are of a different order (in particular, mathematical elegance), or virtually non-existent. There may, for instance, be other ways to demonstrate the irrelevance of order to some mathematical and Boolean operations than 38 – 43, but is there a more elegant and intuitive way to do so? Or notice Bornstein's (35) and Langacker's (36) claims above. Bornstein is summarizing a line of argument in Transformational Grammar that attempts to accommodate the symmetrical relations of predicate calculus, the situation in which the truth value of a proposition and its converse are mutually entailed (see, in particular, Lakoff and Peters, 1967: 124-125, for the originary antimetaboles in this line). Symmetrical relations practically demand antimetabolic expression, at least in languages whose syntax rests markedly on word order.

Whitehead and Russell, as the quintessential example, define a symmetrical relation thus: "a relation is called *symmetrical* if, whenever it holds between *x* and *y*, it also holds between *y* and *x*." (1963 [1910-1913]: 1.22-23). Again, there are other ways to express symmetrical relations. In fact, Whitehead and Russell offer such an alternate expression themselves. After introducing the relation, *converse*, along with the notation, $\breve{R}$, they promptly define symmetrical relation: "[a] relation is called *symmetrical* if $R = \breve{R}$." But, inexorably, they follow that definition with "i.e. if it holds between *y* and *x* whenever it holds between *x* and *y* (and therefore vice versa)" (1963 [1910-1913]: 1.32). Indeed, if we look at how they define the relation *converse*, we get "the *converse* of *R* is the relation which holds between *y* and *x* whenever *R* holds between *x* and *y*" (1963 [1910-1913]: 1.32). Langacker, for his part, is attenuating the role of truth value in natural language semantics, so he zeroes in on symmetrical predicates to argue that order *is* relevant, so that sentences falling into patterns like "X resembles Y" and "Y resembles X" are in fact semantically asymmetrical.

There are, in sum, cognitive dispositions (as in 55 – 57) and functional pressures (as in 35 and 36) that conspire to produce antimetabolic utterances.

The Antimetabolic suite of constructions

> *[L]anguage enters life through concrete utterances (which manifest language) and life enters language through concrete utterances as well.*
>
> — Mikhail Bakhtin (1986: 63)

Astute readers have surely noticed by this point that there is something more going on with many of my examples than just proximal lexical reversal, and have perhaps noticed in the bargain my slippery moves back and forth between *the antimetabole construction* and locutions like *antimetabolic utterances*. In 38 - 43 the reversed elements are closer to indices than to words. In 49 and 50 we have puns (the trope, paronomasia), so we aren't dealing with (implied) repetition of the same word, just the same signans; and in 51 the two signata evoked by *hard* are far enough apart that we might not want to call them the same word either. With 34, we have nouns and adjectives swapping places; with 52, nouns and verbs. And, of course, none of 49 – 54 involve 'literal' reversals at all. No doubt, too, some readers have fallen into the swing of the exercise, as linguists are wont to do, and have generated examples of related phenomena that

push on my definition in one way or another, such as palindromes and similar letter, phoneme, syllable, or morpheme reversals, as in the following:

59. A man, a plan, a canal: Panama. (Mercer 1948)
60. *Golf* is *flog* spelled backwards. (Collier 2009)
61. Old English *axian* —> Standard Modern English *ask*
62. Champagne for my real friends, real pain for my sham friends. (unknown; sometimes attributed to Francis Bacon, sometimes to Tom Waits)
63. You marketise our education, we educate your market. (Neicho 2010)

Antimetabole, in short, is at the nexus of multiplex reversal constructions which could spin off into a quite elaborate taxonomy, depending on how finely one wishes to cut the distinctions. Even phonological feature-values can swap places:

64. … glear plue sky … (against the target of "clear blue sky"; Fromkin 1971: 36)

Such 'spoonerisms' align in some way with metathesis phenomena—perhaps with mirror reduplication and other sorts of symmetrical reversal phenomena in language, as well. Douglas

In the other direction, toward larger textual patterns, there are elaborate nests of reversely ordered story episodes—*narrative chiasmus* and *ring composition* are most frequent labels for this arrangement. Take this striking example from the Old English epic, *Beowulf* (excerpted from Diagram 6—Niles 1979: 930)[20]:

65. A Panegyric for Scyld
    B Scyld's funeral
    C History of Danes before Hrothgar
    D Hrothgar's order to build Heorot
    …
    D Beowulf's order to build his barrow
    C History of Geats after Beowulf
    B Beowulf's funeral
    A Eulogy for Beowulf

Such patterns are common in oral epic poetry, where they serve as organizational and mnemonic frameworks for plotting out narrative units, but they are also features of other narrative and imagistic arrangements in literature (Nänny 1987). These are not antimetaboles, in any stretch of

that term, but they point, with our other examples, to cognitive dispositions that are also at work in that construction.[21]

Returning to the sentential and phrasal level, then, we find three basic kinds of reverse-repetition constructions, along a signans/signatum continuum (Figure 1). One could certainly cut the distinctions finer, along orthographic (60), phonetic (64), phonological (62), or morphological (63) lines, for instance, or in more expressly figurative terms, such as whether allusion (49), paronomasia (52, 53), or polyptoton (63), are implicated, and no doubt such classifications would prove useful in some circumstances. But all of these other distinctions would still fall within the three-way categorization among the antimetabole construction and two other cardinal reverse-repetition constructions, both of which have frequently commingled with antimetabole in description, example, and terminology in the literature on figures—though I offer more precise distinctions than are characteristic of that work. One of these figures has long been studied but only sporadically discriminated from antimetabole, chiasmus, conceptual reversal, the figure in which *signata* repeat in reverse order. The other has never been studied independently as far as I am aware, but examples of this form are often mixed indiscriminately into discussions of antimetabole (or 'chiasmus')—constituent reversal, when *signantid* repeat in reverse order. I call this figure *commutatio*, to evoke the algebraic commutative principle of asemantic formal reversal.[22] Figure 1 plots these three figures on an idealized continuum between 'pure form' and 'pure concept.'

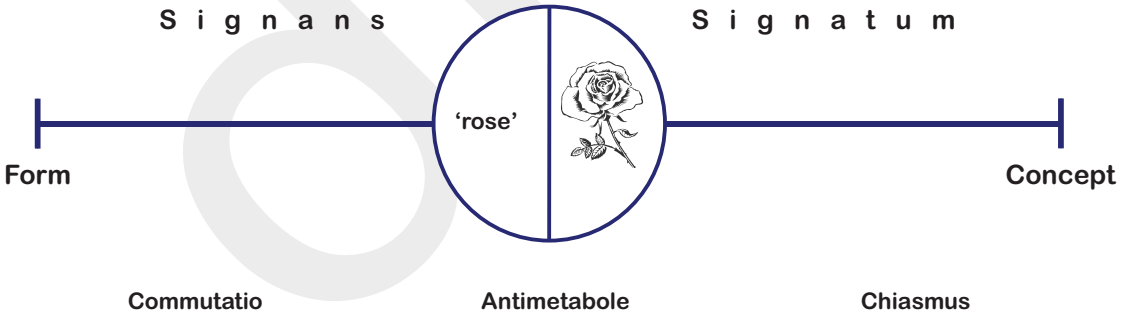


Figure 1: Commutatio, antimetabole, and chiasmus as a function of signans and signatum

Chiasmus—in which the order of two concepts is reversed, but not necessarily the specific words[23]—is considerably more widespread in daily conversation than the antimetabole construction, predominantly in routine reciprocal expressions like these:

66. I helped my neighbours and my neighbours helped me. I made bread for my neighbours and my neighbours made bread for me (Pinker 2013: 32:55-33:02)

These two sentences are translated from the comments of an elderly, rural Sardinian woman explaining how her village made it through difficult times; her education was highly informal, and she is making no attempt to be 'rhetorical'. The referents are the same, but it is not strictly an antimetabole, because the words for the speaker are different (*I* & *me*; I had no access to the Sardinian original, but Italian pronouns also mark case). Other examples of chiasmus, from a variety of sources, include:

67. Old King Cole was a merry old soul / And a merry old soul was he. (traditional)

68. 

(CBC News 2012)

69. Friendly Americans win American friends. (Official Airline Guide 1963:197)

70. [T]he new metaphor — the brain as a calculating machine — is … fraught with the danger of anthropomorphizing the machine and mechanizing the man (Baym 1961: 216)

71. The picturesque saying that 'Language is a book of faded metaphors' is exactly the reverse of reality, where poetry is rather a blazoned book of language. (Bloomfield 1914: 247)

These are not antimetaboles. The repetition is not fully lexical, and the conceptual 'reversal' is loose in places. They are tropes, and like most tropes, the sharpness of the figure can fade away as the semantic relations become less precise. In 66 and 67, identity of referents is high, accomplished with pronouns tightly bound to their antecedents, and the predications are fully reverse (pivoting on *be* and on *tell to go away*). In 68, a Twitter tag line, the identity of referents is still strong, but now one pair is made up of a pronoun and a pronominal clitic bound to a verb (*you* & *'s*; *Vic* & *Vic*); again the predication is fully reverse (pivoting on *know*).[24] In 69, a United States Travel Service slogan from the early 1960s, we have the rough concept 'acting like a friend' modifying the state of 'being American' as the subject flipped in the predicate to the concept of 'with Americans' modifying 'being friends.' The reversed concepts are unquestionably but diffusely related to each other. With 70, the chiasmic character only comes

out clearly under componential analysis (*anthropomorphizing* = CAUSING-TO-APPEAR-LIKE-A-MAN, *machine*; *mechanizing* = CAUSING-TO-BE-LIKE-A-MACHINE, *man*).[25] In the last example, 71, the pivot is the same (*be*), but the referential 'identity' of the members of one pair is looser still (*metaphors* & *poetry*; *language* & *language*).

Farther off yet, at the fuzzy outer limits on the conceptual side of the signans/signatum division, we get examples like this one:

72. What we are left with, as the political scientist Peter Russell has put it, is a presidential system, without the Congress. (The Americans, perhaps, have a parliamentary system without a prime minister.) (Coyne 2013)

Andrew Coyne is clearly offering a reciprocal specification in 72 (compounded by a subtraction routine and blurred in the second sentence with the hedge, *perhaps*). His very next construction— "Two systems, both dysfunctional, in opposing ways"—makes the point that there is one criterion here (dysfunctionality), which the different systems (the Canadian and the American) realize inversely ("in opposing ways"). But the symmetry of 72 is certainly not at the surface. It may even be wholly invisible to anyone not familiar with the respective political systems, because the lexicalization is indistinct, relying on chains of association for two of the elements. Charting out the reverse conceptual repetition, we get something like this:

AB'BA'

Where A = we (= Canadians ≈ Parliamentary system = Prime Minister + Parliament)

B = The Americans (≈ Presidential System = President + Congress)

B' = a presidential system without a Congress

A' = a parliamentary system without a Prime Minister

This example, 72, may be too diffuse to qualify as a chiasmus. But it bears a strong enough family resemblance to the trope that we can see how the functional pressures of reciprocal specification lean toward reverse conceptual repetition.

Commutatios, in which the order of two constituents (features, phonemes, onsets, syllables, …) is reversed, also occur in the daily traffic of language, but not with the spontaneity of antimetaboles or chiasmi (except in the limited sense of spoonerisms). Their 'deviance' quotient is high, and they almost always occur in situations of deliberate wittiness or whimsy. Here are a few examples:[26]

73. She sells sea shells by the seashore. (traditional)

74. I'd rather have a bottle in front of me than a frontal lobotomy. (unknown)
75. Don't sweat the petty things and don't pet the sweaty things. (unknown)
76. Blanche: You're not as gallant as when you were a boy.
    John: You're not as buoyant as when you were a gal.
    (*The Bickersons*, qtd in Grothe 2009: 215-216.)
77. I'll never forget my first corn-silk corona. I was weak for days and in a daze for weeks. (Leroy 1941: 23:25)

Example 77 represents one noteworthy strain of commutatio, the hybridization of antimetabole and paronomasia (the reverse 'repetition' of homonyms).[27] A few more:

78. The odds are good the goods are odd. (Stevenson 1993)
79. Women don't want dates on their condoms; they want condoms on their dates. (Jay Leno, qtd in Hauptman 1994: 45)
80. Our purpose in this life is not to see through one another as much as it is to see one another through. (Facebook meme; Happiness.org)
81. It is not enough to stare up the steps; we must step up the stairs.[28]

Commutatios, as schemes, are naturally more discrete and easier to track than chiasmi.

These three figures—commutatio, antimetabole, and chiasmus—form an obvious grouping, but their interrelations are not uniform. It is easy enough to find relatively pure cases of each category, prototypes, but the divisions among them are blurry and permeable. A pure-case commutatio is a case of reversely repeated constituents, largely disengaged from signata (e.g., 73). A pure-case chiasmus is a case of reversely repeated meanings, largely disengaged from signatid (e.g., 70). A pure-case antimetabole is a case of reversely repeated words, necessarily engaging both signatid and signata (e.g., 1), putting the antimetabole at the nexus of reverse repetition constructions, a kind of pivot between commutatio and chiasmus. But the interrelations are a bit more complicated yet.

Just as personification is a special case of conceit (what is usually called *metaphor* in the linguistic literature), the case in which the cross-domain mapping is idea-to-human, so antimetabole can be seen as a special case of commutatio, the case in which the reversed constituents are words. And many antimetaboles are simultaneously chiasmi as well, the cases in which the conceptual reversal is lexically explicit. If we could stop there, a Venn diagram in which antimetabole is the intersection of commutatio and chiasmus would sum things up nicely.

But not all antimetaboles are are chiasmi—only those where the syntax is identical or highly parallel. Consider this antimetabole, for instance:

82. The saying that beauty is but skin-deep, is but a skin-deep saying. (Spencer 1858: 424)

In 82, the lexical reversal is not accompanied by syntactic reversal (*skin-deep* modifies *beauty* in the first sequence, *saying* in the second; the two words are in separate clauses in the first sequence, abutting each other in the same phrase in the second), so there is no conceptual 'crossing' to match the lexical crossing.[29]

When the exact words repeat in reverse order, in the same syntactic arrangement, the signata repeat in reverse order while the Logical Form remains stable, and one has a chiasmus. These examples, cheek-by-jowl Latin and English versions of effectively the same proposition, make these entailment relations as clear as possible:

83. *Novum Testamentum in Vetere latet, Vetus in Novo patet*. How to translate it exactly?

"The NT was latent in the OT. The OT becomes patent in the NT." (Burke 1979: 163)

Both the Latin maxim and its English translation are chiasmi. The conceptual relationship between the two testaments is reverse (latency/patency) and the 'direction' of that relationship is 'crossed' syntactically.[30] But only in English do we see the antimetabole. Lexical reversal is not the only strategy available to convey this conceptual 'crossing' (the second clause in the English version, for instance, might be rendered "In the NT, the OT becomes patent"), but Burke maintains the formal reversal (while simultaneously opting for a different reduction strategy than the Latin original, abbreviation rather than ellipsis) in his translation, rendering an antimetabole. He also, of course, renders a commutatio, since *OT* and *NT* are constituents that repeat in reverse.[31]

In sum, repetition and reversal manifest in many ways linguistically, both formally and conceptually, and even narratively, reflecting cognitive affinities and functional pressures. The intertwining of factors across this spectrum is too elaborate to pursue here. But we can chart out the functional alignments of the central reverse-repetition construction, the antimetabole construction.

Antimetabole functional alignments

> *[A]n utterance relating a catastrophe or a passion may be evocative without the utterance act being so. Inversely, when social or professional jargons are used, the utterance act can be evocative without the utterance being so. Only in figural speech are both types of evocation necessary.*

—Dan Sperber (2007: 400n3)

In accounting for a linguistic construction, we seek "to explain why it is at least possible and at best natural that this particular form-[function] correspondence should exist" (Goldberg 2006: 217). For the antimetabole construction, the motivations are rich and deep. The very form itself, to start with, is motivated by the cognitive affinities we have for repetition, contrast, and symmetry, which give the construction aesthetic, mnemonic, and saliency effects that promote and propagate it on the level of abstract structure. But the functional alignments of that form are equally basic and interconnected. The antimetabole construction cues three elemental iconicity dimensions—quantity, order or sequence, and proximity—coordinating them in productive ways to foreground its basic functions. The antimetabole construction (ABBA) cues, as do all repetitions, the principle of quantity (A+A, B+B; Givón 2001: 35), it cues the sequentiality principle (A < B, B < A; Givón 2001: 35), and, since the repetitions and reverse orderings are tightly proximal in the purest antimetabole constructions (AB|BA; Givón 2001: 35), it also cues the proximity principle. Since all of the relevant properties (repetition, sequentiality, and proximity) are necessarily present in any given instance of the antimetabole construction, all three iconicity principles are simultaneously in play. But their respective roles are somewhat different in different lexical and syntactic arrangements, licensing four basic functions: comprehensiveness, denial of priority, conceptual reversal, and reciprocality.

As one would expect, since iconicities compound in the antimetabole construction, these basic four basic functions are not mutually exclusive. They are not even discrete. While one function is foregrounded in particular lexical strings, in a manner analogous to what Langacker terms, *profiling* (e.g., 1987, 6-7), all of the functions operate against a backdrop enmeshed of the other functions. This situation, we know, is not unusual. Linguists are used to the same utterance functioning in multiple ways—"Would you like to come to my party?" as both question and invitation, for example, with invitation usually taking the foreground by default. With rhetorical figures, functional amalgamation is the natural condition, and antimetaboles are functional amalgams *par excellence*. There is, firstly, an aesthetic function and therefore a focalizing function, in the familiar marriage of aesthetics and attention, with virtually every scheme (less so with tropes, less yet with chroma). Even unintentionally schemic constructions stand out; when rhymes occur in everyday speech, for instance, a standard comment (among my relatives at least) is "you're a poet but don't know it." Certainly, antimetaboles are rarely missed in speech or print.

They catch the ear or the eye, as special utterances, even if there is no direct sense of what is special about them. Since they involve repetition, there is always a noise-resisting redundancy function. They have a natural contrapuntal feel, sometimes feeding a sense of balance, sometimes a sense of replacement or repudiation. There is frequently a sense of order or ranking. In sketching out the chief functions of the antimetabole construction, that is, I am not arguing that these functions are independent; quite the opposite. There is a functional polysemy, with particular functions having primacy in particular formulations, but with none of them wholly absent.

The principle of quantity applies when a perceivable quantity of signantid (number of words, syllables, phones, graphemes; duration of articulation; scope of gesture; and so on) codes a corresponding 'quantity' of signata (number, scale, urgency); roughly, more form ≈ more meaning. Quantity is implicated in the antimetabole construction by way of lexical repetition (two repeated words), but the reverse sequence of that repetition can ratchet up the quantitative implications by way of increased salience. The principle of sequentiality applies when the relative order of signantid (words, phrases, gestures) codes a corresponding order of signata; roughly, prior epression of form ≈ prior occurrence or priority of importance (Haiman 1985: 92). Sequentiality is implicated in the antimetabole construction by way of two contrasting sequences of the same signantid, which inevitably 'comment' on each other in some way, with one sometimes privileged at the expense of the other. The principle of proximity applies when the relative nearness of signantid corresponds to a relative cohesion of signata; roughly, more proximal signantid ≈ more conceptually bonded signata. Proximity is implicated in the antimetabole construction by way of salient signantid (made salient via repetition and contrast) showing up as close neighbours. The four basic functions—comprehensiveness, denial of priority, reciprocality, and conceptual reversal—emerge from the interplay of these iconicity principles.

In the comprehensiveness function, sequentiality and proximity combine such that the two opposing sequences reinforce each other. With only two significant elements there are only two relative arrangements (A<B or B<A). By foregrounding both orders (A<B + B<A), the antimetabole construction can generate a sense of totality. As Lanham notes, antimetabole ('chiasmus' for him) in many instances naturally "seems to exhaust the possibilities" (1991: 33). Reversed repetition in this function adds a double-down, backwards-and-forwards, coming-and-

going intensification to quantitative iconicity. Here is a classic example, Groucho Marx (as Quincy Adams Wagstaff) opening his address to members of Huxley College:

84. Members of the faculty and faculty members, students of Huxley and Huxley students, ... well, I guess that covers everything. (Mankiewicz and McLeod 1932)

Brute repetition would certainly achieve a quantitative emphasis ('Members of the faculty, members of the faculty, students of Huxley, students of Huxley'). Groucho, however, not only utilizes but hyper-activates an alpha-to-omega-and-omega-to-alpha comprehensiveness function with the double antimetabole, capped with the phrase, "that covers everything." He is guaranteed not to miss anyone. Other examples licensing this function include:

85. I meant what I said and I said what I meant
An elephant's faithful—one hundred per cent. (Seuss 1940, *passim*)

86. Nor should we omit that judgment, or rather divination, which was given concerning the Greeks by the Egyptian priest — that "they were always boys, without antiquity of knowledge or knowledge of antiquity." (Bacon [1620] 1999: 112)

87. And so on, alternating day by day with giving and taking, until the whole ode was learned from beginning to end, from end to beginning, inside out and outside in, up-side down and down-side up, through and through, word by word, and phrase by phrase, and, finally, committed to memory, and written off, *punctatim et literatim*, by each fair nymph with a white hand on the black-board! ("Table Talk" 1869: 261)

88. Whether we bring our enemies to justice or bring justice to our enemies, justice will be done. (Bush [and Frum] 2001).

89. $\frac{A}{A} + \frac{A}{a} + \frac{a}{A} + \frac{a}{a}$ (Mendel 1866: 30)

Horton the elephant, in the Seuss example (85), is fully and completely sincere. The Greeks are fully and completely immature (as a culture) in the Bacon example (86). The fair nymphs are utterly committed to memorizing the ode in 87. George W. Bush's antimetabole (88) implies that all avenues of justice, coming and going, will be exhausted in the US response to 911. The Mendel example is perhaps the most revealing of this function, because it is the most discursively strategic. His quasi-mathematical formula (89) represents the experimental conditions of Mendel's hybridization trials, through which he demonstrated the dominant/recessive inheritance ratios. The magiscule *A* represents dominant traits; the miniscule,

recessive. The 'numerator' position represents pollen; the 'denominator,' seed. And each 'ratio' represents the resulting combination. What is particularly noteworthy about the formula is that Mendel highlights it as the dramatic epitome of his experimental design. He builds toward it via other formulae representing the combinatorial distribution of inherited traits (for instance, A + 2Aa + a), formulae that similarly use the iconicity principle of quantity, but without the reverse-sequence twist. Mendel works through those other formulae as stages in his argument about the comprehensive character of his experimental conditions, to culminate in 89. He even diagrams the antimetabolic 'crossing' of the two center 'ratios' (1866: 30; see Harris 2013: 592-594). Farnsworth notes how the antimetabole construction ('chiasmus' for him) "creates a closed loop" (2010, 98; see also Lausberg 1998: 322, on "the period-like" character of the construction). While Farnsworth is actually focussing on another function of the antimetabole construction (conceptual reversal), this 'closed loop' sense is also what gives the antimetabole construction its seal-the-deal comprehensive in utterances like 84 - 89.

In the comprehensiveness examples, 84 - 89, the principle of quantity leads, reinforced by the principle of sequentiality—both sequences are important, coming and going—but in the denial-of-priority function, quantity recedes and sequentiality comes to the fore in a kind of mutual cancelation. Neither sequence is important, relative to the other. Sequentiality usually operates unilinearly: A precedes B (A<B) because the signatum evoked by signans-A precedes the signatum evoked by signans-B in time or in value, as with these examples:

90. She slipped and fell.
91. Don't drink and drive.
92. God and country.
93. King and queen.

Slip precedes *fell* because slipping precedes falling in 90. *Drink* precedes *drive* because the prohibition is against drinking before driving in 91. *God* precedes *country* in 92, *king* precedes *queen* in 93, because of presumed greater value of the former over the latter.

Because two sequences are in play with the antimetabole construction, however, two counterbalanced and opposite sequences, we can get the opposite functional result: not the assertion of priority, A< B, but the denial of priority, neither A< B nor B<A. The purest version of the denial of priority function shows up in standard-issue illustrations of the commutative property in mathematics and logic (Fahnestock 1999:131-133). It doesn't matter which order you

add (multiply, conjoin, or disjoin) two values (predications), the sum (result, truth value) will be the same. Indeed, George Boole makes precisely this point in his *Laws of Thought* with two antimetabole constructions, one in natural language, the other in algebra:

94. Thus the expression "men and women" is, conventional meanings set aside, equivalent with the expression "women and men." Let x represent "men," y, "women;" and let + stand for "and" and "or," then we have

$$x + y = y + x, \qquad (3)$$

an equation which would equally hold true if x and y represented numbers, and + were the sign of arithmetical addition. (Boole 1854: 23)

Other denial-of-priority examples include:

95. Imagine you and me, me and you. ("Happy Together," Bonner and Gordon 1967)
96. Imagine shrimp and steak or steak and shrimp. (Applebee's restaurant jingle, to the tune of "Happy Together;" Melillo 2004)
97. Gretzky and McNall, McNall and Gretzky, joined at the hip, joined at the wallet. (Brunt 2009: 196)
98. Let me get one thing straight. I am Rob Ford. I like football and trains. Trains and football. (Tavendall 2012; not a quotation from Rob Ford, a deliberate parody)

In all of these examples, 94 - 98, denial of priority is signalled by reversal around a conjunction. As Boole points out (94), conjunctions have a built-in irrelevance-of-priority implication (a set of men and women is biconditional with a set of women and men). We know, however, that irrelevancy-of-conjunctive-order is routinely over-ridden by 'first-spoken-first-occurred' sequential-order iconicity, apparent in sentences like 90 and 91, and that there is a weaker, more conventional evaluative order, apparent in sentences like 92and 93. By including both possible orders, the antimetabole construction in this function eliminates that expectation, temporally and/or evaluatively. If you see Gretzky first, expect McNall, 97 tells us; McNall first, Gretzky is close to hand. Rob Ford likes trains just exactly as much as he likes football, 98 says, football exactly as much as trains; neither can be ranked ahead of the other.[32] "Since one term so depends on the other," Fahnestock notes, "it does not matter which comes first, an indifference displayed iconically in the syntax of the [antimetabole]" (1999: 141).

The difference between comprehensiveness and denial of priority can be slight; again, both functions are present. For instance, the Bush and Frum example (88) certainly has an

irrelevancy of priority implication. It doesn't matter in this utterance what order temporally "enemies" are brought to "justice" or "justice" is visited upon "enemies;" nor is one of these actions more important than the other. But the point of the utterance is that both will and should happen—"justice will be done"—so that the perpetrators of 9-11 will be fully and utterly punished. Similarly, the Tavendall example has a comprehensiveness implication. It's not just that Ford likes football and trains, trains and football, in this utterance. There is a concomitant insinuation that is all Ford likes. But the point of the utterance is to express the equality of his affection for both phenomena, not the comprehensive sweep of his interests.

The comprehensiveness and denial-of-priority functions foreground relative order—the former suggests the endpoints a range, the latter suggests immediate neighbours in a sequence or a ranking (often, only a sequence or ranking of two). Reciprocality, on the other hand, foregrounds the balanced flow of energy. The sequentiality principle is important in this function, by giving 'directionality' to the flow of energy, while quantity recedes almost to coincidence, and the proximity principle takes the biggest role. All schemes rely on proximity to a cardinal degree, of course; one only notices alliteration or rhyme or isocolon because the consonants or the syllabic nuclei or the syntactic/prosodic patterns recur close to each other. Antimetaboles are no exception They are not just reverse lexical repetitions. They are proximal reverse lexical repetitions. But proximity does not have a directly semiotic function in most rhetorical figures. It works like the solid rocket booster on a shuttle launch. It does its basic salience and redundancy job and then falls away. It affords notice of other, more salient modes of cohesion, ensuring that structural (primarily aural) links among words, phrases, and clauses are attended to; those other modes then carry the cohesive (and often conceptual) payload. This background role is the one proximity plays in the comprehensiveness and denial of priority functions of the antimetabole construction.

But proximity plays a more instrumental role in the reciprocality function. If we think of the v-bar in my AB|BA formula for proximity as the center line in a fully symmetrical image—the human face or body, a Rorschach inkblot, any object placed directly against a mirror and viewed along that mirror—we see clearly what the elimination of distance or interference does for the antimetabole construction in the reciprocality function. By tightly juxtaposing the two cola, a sense of reciprocally balanced energy emerges, of two complementary forces perfectly positioned against one another. Wertheimer characterized symmetry as a qualitative shift beyond

the "mere similarity" of one part relative to another. "[I]t refers rather to the logical correctness of a part," he said, "considered relative to the whole in which that part occurs" (1999 [1923], 83n1), and the most distinctive aesthetic dimension of the antimetabole construction is its symmetry. Turner, in fact, glosses the construction as "two elements [AB and BA]… standing in symmetric relationship" (1998: 45). This symmetry maps very directly into the reciprocality function. This function has two realizations, reciprocal force and reciprocal specification. The former is best epitomized by Newton's third law of motion, the latter by symmetrical predication.

Newton's third law of motion is often expressed by the same-stem-different-affix morphological figure rhetoricians call *polyptoton* (e.g., 'for every action there is an equal and opposite reaction'), but textbooks quite relentlessly include a schematized version of Newton's antimetaboles (29) as well, abstracting away from stones and fingers and horses and ropes. Here is a typical textbook account of the third law, with the familiar polyptoton and a profusion of antimetaboles:[33]

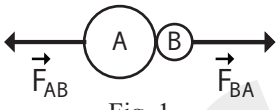


Fig. 1

Let us consider interaction (action and reaction) between two bodies A and B. Let $\vec{F}_{BA}$ be the force exerted by A on B and $\vec{F}_{AB}$ the force exerted by B on A (Fig. 1). Then, according to Newton's third law of motion,

99. $$\vec{F}_{AB} = -\vec{F}_{BA}$$

(Kumar and Juneja, 2006: 275)

Other reciprocal force antimetaboles include:

100. Our dreams feed the movies. The movies feed our dreams. (Scott 2010)
101. Either mankind will stop Monsanto or Monsanto will stop mankind. (Anonymous; see Lewis 2013; cf. Kennedy [and Sorensen] 1961b)
102. Women are changing the universities and the universities are changing women. (Greer 1988: 629).
103. If black men have no rights in the eyes of the white men, of course the whites can have none in the eyes of the blacks. (Douglass 2004 [1867]: 191)

Antimetabole constructions 100-34 manifest the same kind of third-law mutuality between its two members (AB and BA) as 29 and 99, framing a situation as the alignment of two precisely matched energies, an equilibrium or a stasis.

But the reciprocality function can equally engage specification, in which AB and BA both occur in identity predicates, A specifying something about the identity of B, B reciprocating. In fullest realization, this function serves to fuse A and B, asserting a melded, mutual identity for the two terms, what Fahnestock calls an "underlying interchangeability of … terms" (1999: 134). One of Aristotle's antimetaboles in *The Topics* (102[a]), on the convertibility of predication for properties, is virtually axiomatic on this function:

104. A property is something which does not indicate the essence of a thing, but yet belongs to that thing alone, and is predicated convertibly of it. Thus it is a property of man to be capable of learning grammar; for if he is a man, then he is capable of learning grammar, and if he is capable of learning grammar, he is a man [εἰ γὰρ ἄνθρωπός ἐστι, γρμματικῆς δεκτικός ἐστι, καὶ εἰ γρμματικῆς δεκτικός ἐστιν, ἄνθρωπός ἐστιν]. (Aristotle 1960 [c 350 B.C.E]: 282-283]

'Capable of learning a grammar' and 'being (hu)man' reciprocally specify each other, Aristotle tells us. The capacity to learn a grammar specifies some critical aspect of what it means to be human; what it means to be human reciprocates. Much of mathematics and symbolic logic involve matters of identity via the specification and the distribution of properties. So we would expect to find antimetaboles here. As we do. Consider in particular this typical account of *iff*-expressions and their notations:

105. In mathematics it often happens that we combine together an implication statement along with its converse. For example take the well-known theorem, 'The sum of opposite angles in a cyclic quadrilateral is 180 degrees and conversely' If we let p be the statement '$ABCD$ is a cyclic quadrilateral' and q the statement '$\angle A + \angle C = 180$ degrees' then the statement of the theorem is the conjunction of $p \rightarrow q$ and $q \rightarrow p$, that is the statement $(p \rightarrow q) \wedge (q \rightarrow p)$ or $(p \Rightarrow q) \wedge (q \Rightarrow p)$. These types of statements come up so frequently that it is convenient to have a shorter notation for them. The most natural choice is to use arrows in both directions, that is, to use $p \leftrightarrow q$ or $p \Leftrightarrow q$. … Of course many other formulations are possible in view of the symmetry of p and q. Such statements are called 'if and only if statements'. (Joshi 1983, 12)

Unpacking the p's and q's: what it means to be a cyclic quadrilateral is that opposite angles sum to 180°; if opposite angles of a quadrilateral sum to 180°, your quadrilateral is cyclic. But this passage is not about opposite angles and cyclic quadrilaterals. They are just a convenient example. This passage is about how logical relationships should be represented when p's and q's reciprocally specify each other: primitively, in the antimetabole construction; derivatively, in a short hand that compresses the antimetabole into a mutual entailment symbol (↔ or ⇔).[34]

Outside of mathematics and logic, we have examples like these:

106. Beauty is truth, truth beauty. (Keats 1994, 222)
107. For Y am sorwe, and sorwe ys Y. (Chaucer, *Book of Duchess* 597)
108. Plato is philosophy, and philosophy, Plato. (Emerson 1983 [1883]: 633)
109. [T]he enemy is Henry, Henry is the enemy. (Wilder 2007: 272; see Friedman 2007)
110. Gay rights are human rights, and human rights are gay rights. (Clinton 2013: 0:08-0:12)

Since it concerns identity, the reciprocal specification function occurs overwhelmingly with copulas, but even brute juxtaposition (the ne plus ultra of the principle of proximity) has this effect:

111. Church, cult, cult, church—so we get bored somewhere else every Sunday. (O'Donnell, and Moore 1998)

Translated into symbolic logic, any of 106 – 111 would comfortably wear a bi-implicational operator.

Antimetaboles like 106 – 111 seem to fuse the two relevant elements emphatically. It is not enough to identify truth with beauty for Keats, sorrow with "I" for Chaucer. The reverse identification is added to definitionally merge the identities into one. But antimetaboles like 112 show that there can be a somewhat lower melding quotient for other reciprocally specifying antimetaboles, particularly when qualifications are added:

112. Paul McCartney is Eddie Vedder, Eddie Vedder is Paul McCartney. (Fontana 2014)
113. Anger and depression, the pop-psych books tell us, are two sides of the same coin: depression is anger suppressed, anger is depression liberated. (Hertzberg 2008)

Rather than the fully alloyed identifications of 106 – 111, 112 has a deliberate synecdochic implication (McCartney and Vedder equally exemplify the category, classic rock), and 113 has a two-faces-of-the-same-phenomenon signification.

The antimetabole construction in its reciprocality function presents a precisely balanced energy flow that meets in the middle to form the very picture of equilibrium, a symmetrical gestalt. But: throw the balance off by putting a thumb on one side of the antimetabolic scale, and the function switches to an absolute conceptual reversal—in prototypical instances, a virtual obliteration of one colon by the other. This function amplifies a specific directional flow of energy order by privileging it in some way against its opposite order (usually just through specific negation of that order), which can then be utterly rejected. One specific order is denied, cancelled out, while the other order is promoted as the only one that counts. Here are a few:

114. He is 6-foot-5 hitting like he's 5-foot-6. (J.P. Ricciardi, qtd by Simmons 2009)
115. If guns are outlawed, only outlaws will have guns. (National Rifle Association; see Sinnott-Armstrong and Fogelin. 200: 9393)
116. It is better to trust in the Rock of Ages, than to know the age of the rocks. (Bryan 1922: 22)
117. *Droll Stories* are designed rather to impart the morality of pleasure than to preach the pleasure of morality. [[*L*]*es Contes drolatiques* sont plus faicts pour apprendre la morale du plaisir que pour procurer le plaisir de faire de la morale.] (Balzac 1900: 170; 1855: 177)
118. By an application of the theory of relativity to the taste of readers, today in Germany I am called a German man of science and in England I am represented as a Swiss Jew. If I come to be regarded as a bete noire, the description will be reversed, and I shall be become a Swiss Jew for the Germans and a German man of science for the English. (Einstein 1920: 43)

Ricciardi is asserting that Alex Rios is hitting exactly the opposite of what one would expect from him; 'hitting big' is denied, replaced not just by 'hitting small,' but by 'hitting small against all reasons to expect hitting big.' The NRA is attempting to reverse the implication of banning guns with 115; things get worse, not better (Jasinski 2001: 546). William Jenning Bryan's declaration (**Error! Reference source not found.**), often reproduced in abbreviated form ("The Rock of Ages is more important than the age of rocks"), was a famous trump card used to utterly dismiss the menace of evolution. Balzac is claiming his stories run exactly counter to prevailing critical expectations; smuggling morality in under the guise of pleasure is denied, replaced by

pleasure as an end (a moral end) in itself. Einstein spells the conceptual reversal out for himself in his prescient antimetabole.

Like other constructions, figures regularly travel in packs, with some figures serving as particularly strong attractors for others. In its conceptual-opposition function, antimetabole draws antithesis (juxtaposed semantic oppositions) very consistently into mutual orbit, often clearly flagged with *not* (or a variant).[35] Reverse repetition already suggests contrariety—so much so that antimetabole has historically often been classed as a subtype of antithesis[36]—and the law of contraries suggests that only one alternative (if any), can emerge as true. Adding negation makes inescapable which member that is. Examples of this type are very easy to come by, starting with the famous Kennedy-Sorenson example (1). A few others:

119. It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness. [Es ist nicht das Bewußtsein der Menschen, das ihr Sein, sondern umgekehrt ihr gesellschaftliches Sein, das ihr Bewußtsein bestimmt.] (Marx 1977 [1859]: 389)
120. We don't build services to make money; we make money to build better services. (Mark Zuckerberg, qtd in Magid 2012)
121. We didn't land on Plymouth Rock. Plymouth Rock landed on us. (Malcolm X 1999 [1966]: 205; cf. Porter 1983 [1922]:171)
122. Cladistics is concerned with the pattern produced by the evolutionary process; it is not concerned with the process that created the pattern. (Gee 1999: 151)
123. Don't fill your life with days. Fill your days with life. (see Nasser 2013)

The iconicity of this form/function alignment is so direct that antimetabole with one negated colon is a natural consequence, as Peacham puts it, of seeking "to confute [an opponent] by the reversal of [their] sentence" (1954 [1593]: 164; see Fahnestock 1999: 150-155).[37] The closed-loop quotation from Farnsworth above is partial. More fully, stressing the tenor of total refutation this usage can have, the observation reads "[Antimetabole] creates a closed loop that appears to leave no opening for dispute" (2010, 98). Lanham, for his part, calls this application of the antimetabole construction a kind of "verbal judo," which turns someone else's words back against them (2003: 122). With the use of antithesis especially, pairing the denial of AB with the assertion of BA (~AB, BA) routinely carries implications of utter replacement, either ontologically or deontologically of one colon by the other. Ernest Hemingway provides the

quintessential example of this usage—conceptual reversal raised to explicit confutation—when he has Pablo answer Anselmo antimetabolically in *For Whom the Bell Tolls*:

124. "Coward," Pablo said bitterly. "You treat a man as coward because he has a tactical sense. Because he can see the results of an idiocy in advance. It is not cowardly to know what is foolish."

"Neither is it foolish to know what is cowardly," said Anselmo, unable to resist making the phrase. (Hemingway 1968: 54; the underscoring is mine, to illustrate how even the obsessively plain-style Hemingway recognizes the cognitive pull that symmetrical opposition exerts[38])

Even the jokey commutatio rejoinder from the *Bickersons* (76) has this confutative feel to it, though the signata do not correspond very closely to each other at all (*gallant … boy* / *bouyant … gal*).

Adding negation to reciprocal specification, however, sometimes falls quite short of conceptual reversal, the cancelling out of one alternative by the other. Rather, we can get a qualification of the directionality of identity:

125. [E]very sign is also a thing, … but not every thing is also a sign. [Quam ob rem omne signum etiam res aliqua est. ... Non autem omnis res etiam signum est.] (Augustine, *De Doctrina* 1.2.2)[39]

The four basic antimetabole functions are motivated by related implications of their shared form (that form itself being additionally motivated by its cognitive resonances), with different potentialities of that form being profiled by the lexical elements, the syntactic structure, and the context, interacting with three fundamental iconicity principles. The ABBA structure implicates quantity (hence emphasis), sequentiality (hence order or flow and, in reverse, opposition), and proximity (hence, fusion of the two cola into a gestalt).

The form suggests rather immediately the central importance of reciprocality, with a symmetrical architecture of two highly similar but centrally reversed cola facing each other. When the cola are copular, that reciprocality concerns specification, a kind of mutual definition;[40] When the cola are transitive or otherwise suggestive of movement or energy flow, the reciprocality concerns force, a kind of closely balanced opposition. In both cases, proximity is central (the cola abut each other) and sequentiality is engaged (the cola realized opposite 'directions'). In effect, the reciprocal functions equipoise both directions against one another.

Reciprocal specification thereby suggests a comprehensiveness of utterly assimilated mutual identity. Reciprocal force thereby suggests a total equilibrium. With the conceptual reversal function, the balance of the cola is thrown over by the privileging of one order, profiling reversal rather than symmetry. The two cola are taken in tandem, one commenting on the other, almost always rejecting and completely replacing the other, figuratively obliterating it (hence, the close association with antithesis, where the negation or other elements of opposition implicate rejection). Denial of priority, on the other hand, rejects the directionality of both cola, cancelling out the possibility of one privileged order. Comprehensiveness again relies on both orders in a symmetrical, almost circular architecture, but rather than balancing each other, or cancelling each other out, it connotes a backwards-and-forwards, forwards-and-backwards sense of total coverage and closure.

These four functions clearly interpenetrate in various ways. They form a natural polysemy of reversal and symmetry, order and denial of order. But this is a rough survey only. These characteristics and functions interact, subdivide, and overlap with each other and with the characteristics and functions served more specifically by commutatio and/or chiasmus more subtly than this paper can map out. For now, I claim only that these four basic functions need to be represented on the functional side of the ledger in a full specification of the antimetabole construction.

Cognitive affinities and universal constructions

> *[W]e will be downright rapturous if we can convince ourselves that the formal frameworks that we rely on for doing linguistic descriptions have a reality of their own, i.e., that they can themselves be interpreted as reflecting universals of human experience, or as providing insights into the nature of innate human cognitive capacities.*
>
> —Charles Fillmore and Paul Kay (1996: 1.7-1.8)

In addition to a form/function communicative motivation, figurative constructions have another layer of motivation, an aesthetic and mnemonic layer specific to the form itself. Attention to the form qua form reveals the way in which we respond to patterning in the abstract, what Burke calls an "appetite in the mind of the auditor" (1925: 35). The mind prefers patterns over buzz, and prefers certain patterns over other patterns. It has affinities. Semiotically, these affinities manifest on both signans and signatum. It is easy to chart the analogic affinity, for

instance, which highlights or engenders similarities, at the prosodic level with various rhythmic similarities (pentameter, hexameter, limericks); at the phonological level with similarities of sound (assonance, consonance, rhyme); at the morphological level with similarities of affixing (polyptoton, homeoteleuton); at the lexical level with sound or meaning similarities (paronomasia, synonymy); at the syntactic level with phrasal similarities (isocolon); at the semantic level with the analogic tropes (simile, reification, anthropomorphism); and at the discourse level with genres (analogic argumentation, allegory, parable). The situation with antimetabole is somewhat different. Metaphor, rhythmic patterning, assonance, isocolon, and related phenomena, show how one affinity manifests linguistically on multiple levels, with multiple realizations. The antimetabole construction, however, manifests multiple affinities simultaneously: repetition, opposition, and symmetry.[41]

It is not clear if the inventory of cognitive affinities is relatively small or large, or even if it makes sense to talk of such inventory. But we can say with confidence that some structures are more welcome to our minds than other structures. Certain perceptual arrangements dock more easily in the mind. They are stored and retrieved more efficiently. They circulate more widely. Associational psychology, back to Plato and Aristotle, has explored this extensively. The Gestaltists explored this, and demonstrated it experimentally. Neuroscientists, like Vilayanur Ramachandran, make similar claims. And the work of cognitive linguists on 'metaphor' and 'metonymy' has established that certain structures powerfully shape our use of language.

Our minds respond instinctively to repetition, to contrast, and to symmetry. Rhetorical figures, especially schemes and tropes, are effective diagnostics of these affinities. Figures developed in a pre-literate world when catching attention and linguistically colonizing multiple minds depended on accentuating properties of utterances that those minds responded to instinctively. They continue to thrive in the extra-literate oral domain of speech genres like proverbs, maxims, jokes, and other memes. And they have gained renewed circulation in the linguistic realm Walter Ong called "secondary orality" (1982: 2, *et passim*), in the sound-bites, promos, textual blurbs, and other utterances prevalent in electronic and digital genres such as radio ads, TV skits, Facebook updates, and Twitter posts (anecdotally, both Facebook shares and re-tweets reveal a high proportion of rhetorical figures). Rhetorical figures are the archetypal motivated constructions.

Certainly there is little doubt that the three properties most apparent in the antimetabole construction are cognitively resonant. All three are recognized widely as perceptual and aesthetic orientations of the human mind, for their role in the way we perceive, remember, and judge phenomena. They feature prominently in the Gestalt principles of perception, for instance, and number among Ramachandran's ten universal laws of art.

Starting from the whole, the Gestaltists' defining concern, the most striking architectural feature of the antimetabole construction is its symmetry. In its most concise form (for instance, 111—"church, cult; cult, church") we get a fairly tight mirror image, and all antimetaboles exhibit this structure to some degree.[42] The Gestaltists noted a perceptual bias for symmetry early in their research programme, and incorporated it as a key element in their fundamental Law of Prägnanz (Wertheimer (1999 [1923]: 83n1). Our physical attraction to each other is grounded in symmetry (Grammer and Thornhill 1994; Rhodes et al. 1998). Our cultural artifacts, from massive cathedrals to kaleidoscopes to woven blankets, are rife with symmetry (Weyl 1952; Washburn 2004); whole catalogues of abstract symbols (yin/yang, swastika, Mobius strip, the Pepsi logo) are symmetrical in ways that might easily be characterized as visual antimetaboles. "[T]he eye," as Charles Darwin observed in *Descent of Man*, "prefers symmetry" (93). So does the ear (Cohen and Cohen 1999). Symmetry is as fully embodied in our nature as imaginable. Our bodies are symmetrical, one side to the other; our brains are symmetrical, one hemisphere to the other; our brain-motor interface is symmetrical, one side to the other hemisphere, and vice versa; it even 'crosses' in the corpus callosum. Ramachandran and Hirstein speculate that heightened symmetry responses were evolutionarily advantageous, because "biologically important objects," like predators, prey, and kin, are symmetrical, so that sensitivity to symmetry "may serve as an early-warning system to grab our attention to facilitate further processing of the symmetrical entity until it is fully recognised" (1999: 27; see also Enquist and Arak 1994).

"[T]he law of contrast," Koffka says in *Principles of Gestalt Psychology*, is "one of the oldest laws of association" (1999 [1935]: 607). It goes back at least to Aristotle and his tripod of mental processes (the other two being similarity, which aligns closely with metaphor, and contiguity, which aligns closely with metonymy and with the principle of proximity). *Contrast* is perhaps too mild a word here. *Antithetos* is Aristotle's term (*On Memory* 451b18), "placed in opposition." It is the same word that anchors the label for the trope, *antithesis*. It carries the sense

of pushing in opposite directions, precisely what is suggested in the reverse repetitions of the antimetabole construction.

Repetition is the opposite of contrast, just more of the same thing over and over, and gets tedious quickly, which may be one of the reasons that antimetabole is such a salient arrangement—it is repetition plus a reversal that adds contrast (and symmetry). But there is no escaping how basal repetition is as a cognitive affinity. It is so fully enmeshed in moment-to-moment cognition that its importance is virtually self-evident. Want to develop a great wrist shot, or inside fastball, or jeté? Repeat the moves over and over and over. Want to remember a phone number or an address? Repeat it over and over to yourself. Want to learn the times tables? The alphabet? The sequence of months? Repeat them over and over to yourself. Better yet, repeat them in a sing-song pattern (that is, in prosodic repetition), or combine them with rhymes (repetitions of syllabic nuclei and codas) or alliteration (word-initial consonant repetition), or any other repetitive heuristic strategy (assonance, allusion, synonymia, …). Indeed, while it is notoriously difficult to link most cognitive processes or inclinations to the wetware that instantiates them—some cognitive scientists even talk of an "incommensurability between the languages of neuroscience and psychology" (Kagan and Baird 2004: 100)—repetition is one phenomenon that is common to both areas, to both 'languages.' We know, for instance, that neurons fire repetitively. We know that neural pathways build up by repetitions of the same firing patterns. We know that the most elemental stuff of cognition is brain rhythms; that is, highly repetitive neuronal firing patterns. Should we seek experimental verification, however, it is easy enough to come by. Bornstein (1989), for instance, is a meta-analysis of over two hundred experiments demonstrating the robustness of the mere-exposure effect, also known as the familiarity effect—repeated encounters with any stimuli whatsoever biases people toward those stimuli.

Beyond lexical repetition, the particular type of structural repetition known in aesthetics as *parallelism* is frequently manifest in antimetabole constructions; another figure that antimetabole often finds itself in mutual orbit with is isocolon, parallel syntax. Again, the Kennedy-Sorenson chestnut (1) is prototypical. It is lexically symmetrical (*your country … you* / *you … your country*), but syntactically parallel (*what NP can do for NP … what NP can do for NP*). The prosody in this case reinforces the symmetry, since *your country* and *you* have different stress patterns. In other cases (85, for instance), the prosody reinforces the parallelism. In both

cases, it increases the cognitive stickiness. "One of the major advances of modern cognitive science," Holyoak has said, is the discovery and modelling "of how parallel processes are used in perception" (1995: 290).

In sum: the antimetabole construction and its relatives are not only motivated by a close form/function iconicity, they are motivated by a conspiracy of cognitive affinities. Metaphor (simile, conceit, allegory, analogy, …) is what one would predict if one took a mind which was fundamentally analogic and added language. Cognitive scientists, linguists, philosophers of mind, would be stunned to find a language without metaphor. It is universal. I believe the same situation holds for antimetabole constructions. They are precisely the linguistic configurations one would predict if one took a mind built on principles of symmetry, repetition, and opposition, then added language.

Conclusion

> *Let no man look for much progress in the sciences — especially in the practical part of them — unless natural philosophy be carried on and applied to particular sciences, and particular sciences be carried back again to natural philosophy.*
>
> —Francis Bacon, *New Organon* LXXX

In this paper, I have (1) argued that rhetorical figures are motivated constructions in the form/function alignment sense of Construction Grammar, (2) advocated the importance of the rhetorical figures known as schemes to linguistics and cognitive science; (3) illustrated the prevalence and pervasiveness of a specific scheme, antimetabole, along with its close relatives, commutatio and chiasmus; (4) outlined the four chief functional dimensions of the antimetabole construction, with their iconicity motivations; and (5) sketched the cognitive affinities that contribute to the salience and ubiquity of that construction, and provide a set of 'formal' motivations.

Since the antimetabole suite of constructions appears simply to be a natural consequence of adding language to a mindbrain that has affinities for repetition, contrast, and symmetry, and since it is widely distributed among registers, genres, and languages it is reasonable to suppose that the suite is universal. In a very unsystematized hunt for such constructions in non-European languages, in addition to the few above, I have turned up a few, including these:

I have collected a few scattered examples outside the western tradition, which suggests it is not a 'merely' cultural phenomenon, passed along like the "…not" construction.

126. The hyena, its son is a lion, the lion, its son is a hyena!
[Guderi, nasi kissa zobo, zobo, nasi kissa guderi!] (Hamar; Strecker 1988,146)

127. They feed the ridge. And the ridge feeds its owner.
[I ni rigi nduka. Nduka ki rigi ira ha.] (Zande; Evans-Pritchard 1964, 1)

128. The one who is offended never forgets. The one who forgets is the offender.
[Umenziw' akakhohlwa. Kukhohlw' umenzi.] (Zulu; Nyembezi 1954, 22)

129. Think before you act. Don't act before you think.
[Bhabia korio kaj. Koria bhabio na.] (Bangla; Sabrina Zaman, personal communication)

130. My ravishing mistress has bewitched my heart and soul. Has bewitched my heart and soul, my ravishing mistress.
[Delbar-e jānān-e man, borde del-o jān-e man. / Borde del-o jān-e man, delbar-e jānān-e man] (Old Persian; Hāfez 2002 [c1350]: 488, translation by Farzad Kolahjooei)

131. What to do don't ask us, don't ask us what to do
He has crushed us like shore crabs, like shore crabs he has crushed us
To be pack donkeys we refuse, we refuse to be pack donkeys
To be saddled in packs for work, that is what will not be achieved
[Lakutenda situuze situuze lakutenda
Metufunda wanamize wanamize metufunda
Kuwa punda tuizize tuizize kuwa punda
Kwandika tapo tutenda hilo halipatikani] (Swahili; al-Ghassaniy [c1810], quoted in Wamitila 1999:65; trans. by Harries 1962: 254)

But the hard data to test this hypothesis is scant indeed, requiring very heavy cross-linguistic research to achieve any real empirical foundation. There is considerable room here for computational linguists, or even computational rhetoricians, to explore proportions and correlations within and among languages and language families—not just to hunt for presence and scale, but to test my claims about functional alignment. In the interim, however, the evidence is certainly sufficient to claim, minimally, that the antimetabole construction has spontaneously arisen on numerous occasions, in numerous contexts, cultures, and languages, with individual instances then propagating for a time, and perhaps the construction template catching on and

propagating as well—which tells us something significant about both language and the organs of language, human minds.

Beyond the antimetabole suite of constructions, looking for schemes more broadly (schemes of repetition perhaps being the most immediately amenable), testing for functional alignments claimed in the rhetorical literature (chiefly, Fahnestock 1999), and generally pursuing the program of mutual enrichment between rhetorical figuration and construction grammar advocated by Turner (1998). In the meantime, I leave skeptics about the universality of antimetabole and the neglected relevance of schemes to a responsibly full linguistic theory with a familiar scientific maxim:

132. Absence of evidence is not evidence of absence. (traditional)

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Notes

[1] Katz's antimetabole works much the same, of course, arguing to reverse theoretical and methodological commitments, as Kennedy and Sorenson seek to reverse civic expectations and values.

[2] Contemporary linguists have paid very little attention to antimetabole. Turner (1998, 44-45) makes a few astute remarks in his general argument for wider linguistic incorporation of figures, and Nunberg (2009) has a brief article. Turner's remarks are helpful and I will draw on them below; Nunberg's, less so, but his is an informal, extracurricular discussion in his popular language column (for which he goes as *Geoff*, to distinguish the sorts of casual observations he offers there from his academic work, for which he goes as *Geoffrey* Nunberg, a good and serious linguist), in which the scholarly standards are very loose. Nunberg (2009) traces the antimetabole to "Shakespeare and Milton;" in fact, it can be found thousands of years earlier, in all the major pre-literate texts—the Homeric epics, Gilgameš, the Old Testament. (And, in any case, finding the beginnings of antimetabole would be akin to finding the beginnings of passive voice, perhaps even of metaphor.) He says that antimetabole remains "as catchy as ever, but it can't be the vessel for a deep idea anymore," as it presumably was for Kennedy, Shakespeare, and Milton (Farnsworth is even tougher on the construction, suggesting that in modern political discourse it "often will sound disagreeably slick and perhaps even repulsive"—2011: 98). Nunberg associates antimetabole with "rhetorical overreaching" and expresses relief that President Obama avoided it in his first inaugural address. In fact, he uses the absence of antimetabole as a diagnostic to pronounce Obama oratorically restrained in the first inaugural. The address, however, is highly eloquent and thick with rhetorical figures. Much more notable, as we will see when we consider the functional range of the antimetabole construction, the rhetorical trajectory of Obama's first inaugural address is one of continuity and renewed commitment to American ideals, very different from the sort of reversal that antimetabole most frequently serves. This trajectory is in marked contrast to the preceding electoral campaign, which was all about reversal, and which consequently featured antimetabole as the emblematic figure both for Obama and McCain in their various speeches and sound-bites, and even the decidedly ineloquent Sarah Palin sported the figure (Lapidos 2008). As for the second inaugural address, there were no

antimetabolic show-stoppers of the Kennedy-Sorenson variety, but it is not coincidental that in a speech which spends some time repudiating the agenda of his opponents we get this *make*/*take*(*rs*)//*take*/*make* reversal (specifically targeting Paul Ryan): "Medicare and Medicaid and Social Security … do not make us a nation of takers; they free us to take the risks that make this country great" (Obama [& Favreau] 2013)

[3] While the word *construction* has a long history in grammatical classification, dating at least to Cicero and Priscian (Cicero may have been the first to use it of phrasal arrangements; Priscian may have been the first to use it as a technical term), I enlist it here in direct association with the comparatively recent Construction Grammar framework growing out of the work of Charles Fillmore and his colleagues (Fillmore 1988, 1989; Fillmore and Kay 1987; Goldberg 1995, 1997; Fried and Östman 2004; Östman and Fried 2004a, 2004b). Please notice that these last two citations constitute an antimetabole—the authors' names are reversed—signalling one of that construction's primary functions, the irrelevance of order to importance or ranking (in this case, with respect to the intellectual contributions of the two authors).

[4] This example—except for some differences in the martial implements invoked—is isomorphic with the phenomenon Lakoff and Johnson label ARGUMENT IS WAR. Quintilian calls the relevant trope *allegory*. My own terminology favours *analogic frame*. It is a serious category error, however to call this phenomenon a *metaphor*, and a further confusion to call it a *conceptual metaphor*. All tropes (as outlined below), including all metaphors, are conceptual. That's what distinguishes them from other rhetorical figures. The confusion no doubt resulted from the fact that, like many analogies, this one can be (and frequently is) epitomized as a metaphor. "Argument is war" is a metaphor. But, as they've construed it, naming an array of lexicalisms and phrases (what Reddy labels *metaphorisms*—1979: 299) that express an analogic framing of argument in terms of war, ARGUMENT IS WAR is not a metaphor. "Time is money" is a metaphor; TIME IS MONEY is not a metaphor. Analogic frames are related to the 'proportional' analogy of Aristotle, continued by such thinkers as Kant, Whately, and Perelman & Olbrechts-Tyteca, expressed thusly by Aristotle: "A:B::C:D, and then permutando A:C::B:D … mathematicians call this kind of proportion geometrical: for in geometrical proportion the whole is to the whole as each part to each part" (*Nichomachean Ethics* 1131^{b}). In Aristotelian notation, we would chart the relevant proportions something like so:

to-argue(-firm):argument::to-fight(-firm):war

to-try-for-a-conclusive-point/objection:argument::to-aim-at-the-throat:war

to-make-a-telling-point/objection:argument::to-draw-blood:war

Analogic frames are the (B:D) "whole … to the whole" that license the (A:C) "each part to each part" mapping. Reddy's *metaphorism* names the part-terms that evoke the analogic frames of ordinary language (e.g., "*invest* a week," "*spend* an afternoon," "*bank* my sick-days" evoking TIME:MONEY). Perelman and Olbrechts-Tyteca quote Cazals De Fabel's definition of *analogy* as "a relationship of resemblance rather than a resemblance of relationship [c'est qu'au lieu d'être un rapport de ressemblance elle est une ressemblance de rapport]" (1969: 372; cf. de Solages 1946:15), which, aside from the antimetabole, gets nicely at the architectonic nature of analogy that structures thought in such frames, as well as giving rise to metaphors, similes, conceits, and so on.

[5] See especially Gibbs (1994, 1999, 2012), and the journal Gibbs founded and edits, *Metaphor & Symbol*.

[6] This taxonomy is mine, partially articulated in Chien and Harris (2010) and Harris (2013). It is heavily influenced by the taxonomic efforts of rhetoricians over the ages, from the anonymous *Rhetorica ad Herrenium* to Group μ's *General Rhetoric*, but it is equally influenced by twentieth century ordinary language philosophy.

[7] *Deviation* may strike some readers as a misguided defining concept for figuration, because ordinary language shows such an inescapable penetration of figurative processes, but I mean the term in an ideal sense, against a hypothetical utter blandness of language (Group μ's "degree zero"— Dubois *et al*. 1981), and I mean it (as *deviation* always implies) in a graded sense, not in a binary present/absent sense. They are deviations when they first enter the linguistic stock, but they can quickly become the new normal. Figures are routinely noticed, but they often recede into literality, blandness, invisibility, if they enter common trade, such that our daily speech is mostly an exchange of "coins with their images effaced and now no longer of account as coins but merely as metal" (Nietzsche 1995 [1873]:92).

[8] The passage also includes erotema, of course, since Cicero is not looking for his 'addressee,' Cataline, to answer his question about unparalleled guilt, as well as another chroma,

apostrophe, in which the apparent addressee is only a false front. The remarks to Cataline are fully intended to be 'overheard' by the real addressees, the magistrates.

[9] One can certainly see why rhetorical moves have often been grouped with figures. Schemes, tropes, and chroma are understood against a hypothetical "degree zero" literality or blandness (Dubois *et al*. 1981), where the form draws no attention to itself, where flat and direct denotative semantics provide the only meaning there is, and where the speaker's intention matches up identically with those semantics and the default syntactic functions of any utilized structure. Design and context are nowhere to be seen. Similarly, moves are understood against some hypothetical degree-zero form of discourse (usually some form of argumentation), which proceeds in a bland and narrow building-block style, with no presumption or prophylaxis or deviation from a rigid, syllogistic premise-conclusion blueprint.

[10] The word is also spelled/pronounced *antimetavole*, and has (as many figures do) a number of other labels in the rhetorical tradition, including *commutatio* (*Rhetorica ad Herennium* [(Pseudo-)Cicero]), *the counterchange* (Puttenham 2007 [1593]: 293), and *réversion* (Fontanier 1977 [1827]: 381). Calvin Trillin called it, specifically of Kennedy and Sorensen's famous use, "the reversible raincoat" (Waldman 2003: 161), a term that has caught on among speech writers (Nunberg 2009). Another term heavily implicated in this construction is *chiasmus*, which is sometimes used of antimetaboles, but more often used of a conceptual reversal, rather than strictly lexical reversals. Chiasmi are, in my terms, part of the antimetabolic suite of constructions, which I disentangle later in the essay.

[11] Accidents do indeed sometimes happen with these constructions, as in this 'chiastic' example, "Johnson and I (Lakoff and Johnson 1980) …" (Lakoff 1993: 207).

[12] There is also this unsavoury example, attested by Clark Cooley "I was at the grocery store. Where I just shit my pants. I SHIT MY PANTS! At the grocery store." (n.d.) Aside from its pungency, the reversal here does not really 'feel' antimetabolic, in that both repeated clauses seem more like brute repetition (for emphasis) with the reversal of order contributing nothing further.

[13] Mr. Ford was a high-school football coach at the time he was mayor, and ran a charitable football foundation. He missed various meetings because of coaching obligations, and

allegedly used city resources and political influence with lobbyists in connection with the foundation. See, e.g., Gray *et al*. (2012).

[14] See Smith (1981) on "chiasm" in extant Sumero-Akkadian texts.

[15] Andrew Bednarski has provided the following glyph-by-glyph transliteration (stool; door bolt; wick) = is bitten + (water; arm; quail chick; serpent determinative) = male serpent + (flowering reed; water) = by + (water; arm; loaf) = female serpent + (stool; door bolt; wick) = is bitten + (water; arm; loaf) = female serpent + (flowering reed; water) = by + (water; arm; quail chick; serpent determinative) = male serpent.

[16] But see Grothe (1999), Farnsworth (2011: 97-114), and drMardy.com for a wealth of examples in these fields, where the terminology is somewhat different.

[17] This British maxim (*football* = *soccer* for North Americans) is sometimes rendered with *thug* in the place of *hooligan*; the latter makes for greater overall symmetry (hooligan and gentleman have the same syllable count and stress pattern), which makes it cognitively stickier, and consequently more prevalent.

[18] Mardy Grothe, author of *Never let a fool kiss you or a kiss fool you* (Grothe 1999) and architect of a website on figurative language (drmardy.com), promininently featuring the antimetabole suite (collapsed as "chiasmus"), calls this locution *implied chiasmus*. See drmardy.com/chiasmus/types/implied.shtml for some discussion and many examples. Lederer (2006: 137-148) has another cornucopia of antimetabolic allusions, which he treats as a species of Spoonerisms.

[19] I have heard this phrase used colloquially of hangovers, but the citation here is to an article on the wine industry. There is at least one more relevant use of the phrase, as the title of a TV movie on the life of the hockey coach and commentator mentioned above, Don Cherry (Barna and others, 2012). Cherry's nickname is *Grapes*.

[20] Ring composition is a subset of chiastic narrative structure, the difference being that ring composition features a center, chiastic structure is simply concentric parallel narrative events (with or without a distinct event at the centre). That is, ring compositions observe the pattern abxcxba, while chiastic narrative structures observe the pattern abx…xba. For a treatment of these narrative patterns that stresses their cognitive dimensions, see Douglas (2007).

[21] While I will stick with my simple dual ABBA reversals in charting out the antimetabole construction, it is worth noting that the concentric parallelism which characterizes chiastic narrative patterns occasionally shows up at the clause level as well:

1. A most beastly place. Mudbank, mist, swamp, and work; work, swamp, mist, and mudbank. (Dickens 1884: 216)
2. First came the big black engine, puffing and chuffing. Then came the boxcars, then the oil cars, then the coal cars, then the flat cars. … The little red caboose always came last. … "Oh, smoke!" said the little red caboose. "I wish I were a flat car or a coal car or an oil car or a boxcar, so boys and girls would wave at me. How I wish I were a big black engine, puffing and chuffing way up at the front of the train!" (Potter 1953, np)

I have not done a study of concentric repetition sentences, but these two examples seem typical of such patterns, reflecting a direct egocentric sequential-order iconicity. The first follows the worker down the mudbank into the mist and swamp to his work, and back out again. The second contrasts the perceptions of children, as the train passes them by, with the perceptions of the little red caboose of the cars nearest-to-furthest from him.

[22] So far as I know, rhetoricians and grammarians have not commented on these purely formal reversals, but we need a way to distinguish them from the restricted set of lexical reversals (i.e., antimetaboles), and this word from the rhetorical tradition is evocative. *Commutatio* is synonymous with *antimetabole* in that tradition, showing up first in the *Rhetorica ad Herennium*, where it is defined as "two discrepant thoughts … so expressed by transposition that the latter follows from the former although contradictory to it" (Pseudo-Cicero, 1954 [c95 BCE]: 325), which actually comes closer to defining *chiasmus* (but only antithetical chiasmi), as used in this essay. The examples adduced in the *ad Herrenium*, however, are mostly pure lexical reversals, with a few morphological variations. Nor are all of them antithetical (e.g., "A poem ought to be a painting that speaks; a painting ought to be a silent poem" [poema loquens pictura, pictura tacitum poema debet esse] (326-327).

[23] Some rhetoricians have a grammatical rather than a conceptual understanding of chiasmus, which involves the "reversal of grammatical structures in successive phrases or clauses," as in these examples:

1. By day the frolic, and the dance by night. (Johnson 1800 [1749]: 51)

2. Exalts his enemies, his friends destroys. (Dryden 1760 [1681]:184)
   (Corbett 1971: 478)

Corbett clearly has some conceptual criteria in play, given the (loose) synonymy of *frolic* and *dance* and the antonymy of *day* and *night*, *enemies* and *friends*, *exalts* and *destroys*. But it is the lexical and phrasal category 'criss-crossing' that the definition references (for 1, A=PP, B=NP; for 2, A=V, B=NP). Notice that 1 is technically an antimetabole (A=*by*, B=*the*), which surely contributes to the chiastic impression of the sentence for Corbett, but the relevant words have very little semantic weight.

[24] *Vic* here is Vic Toews, Public Safety Minister in the 2012 Canadian Federal Cabinet, who had recently introduced an online surveillance bill, and vikileaks30 was started to reveal messy details about Toews' own private life.

[25] Figuratively, 70 also features homoeoteleuton, the repetition of an affix with different stems.

[26] More precisely, I would want to call these examples "sublexical commutatios," as I will shortly be classing the antimetabole as a subset of the commutatio.

[27] See also 49 - 53. Another genre of paronomasic commutatios is a set of question-and-answer jokes, most common in schoolyards, in which the humour hinges on the reversal of one or more phonemes along with a repetition of others:

1. What's the difference between a fisherman and a lazy schoolboy? … One baits his hook, while the other hates his book.
2. What's the difference between a heroic soldier and an evil baker? … One darts in to his foe, the other farts into his dough.
3. What's the difference between a photocopier and the flu? … One makes facsimiles; the other makes sick families.
4. What's the difference between a boxer and someone who has a cold? … A boxer knows his blows, and someone with a cold blows his nose.

[28] There seem an equal number of attributions of this quotation to Vaclav Havel and Vince Havner (startlingly similar names), and I have been unable at this point to uncover the original source.

[29] There is also a higher tropological quotient in the second clause, since, while it is metonymic of surfaces and superficiality in both clauses, *skin* is literally implicated in beauty, metaphorically implicated in sayings.

[30] In the first Latin clause, *Novum Testamentum* is nominative and *Vetere* ablative, reversed in the second clause to *Vetus* nominative and *Novo* ablative; in the first English clause, NT is subject and OT copular-complement, reversed to OT subject and NT copular-complement.

[31] Fahnestock (1999: 123) apparently has a notion something like entailment in mind for the relation between antimetabole and chiasmus. She regards the latter as a "variant" of the former which "abandons the constraint of repeating the same words in the second colon yet retains a pattern of reversal." Corbett (1971: 478), for his part, says that antimetabole and chiasmus are "similar" but that the latter involves a reversal of grammatical structures …[but] does not involve a repetition of words." Fahnestock's phrase, "abandoning the constraint," suggests that antimetabole is a subset of chiamus for her, while Corbett's phrasing does not attempt to formalize the relation in any way beyond similarity on one dimension (grammatical structure), dissimilarity on the other (lexical repetition), a treatment that suggests they are mutually exclusive. For my part, I see a substantial overlap captured by the entailment relation. Antimetaboles, that is, are also commutatios and often chiasmi as well. While linguists might find this kind of overlap uncomfortably messy, there is nothing shocking about this to scholars of figuration. Any constituent repetition at the syllable level or greater, for instance, entails rhyme. Any rhyme entails assonance. Alliteration entails consonance. Oxymoron entails antithesis.

[32] Again, these are the foregrounded functions, but other functions are often in play as well. Tavendall, for instance, is suggesting that football and trains are all that Rob Ford likes, that his forwards and backwards list exhausts Rob Ford's interests.

[33] While the negation in the second 'predication' of the formula does render it antithetical to the first 'predication,' we do not have the 'denial of AB' function here. The negative in this formula does not code subtraction or elimination, but complementarity.

[34] Zellig Harris's transformational grammar, we might recall here, is an equivalency grammar, in which sentences are seen as symmetrical transforms of each other, many of them involving a swap of element positions, such as topicalization and passives, and Harris came to formalize these relations with the double-headed arrow.

[35] Antimetaboles frequently include isocolon as well—while the word pairs are symmetrical to each other, the cola are usually closely parallel—and always include ploche (lexical repetition), since reverse lexical repetition entails lexical repetition. Variations on antimetabole, commutatio, and chiasmus can be found travelling with such other figures as polyptoton (repeated lexical stems with different morphology), homeoteleuton (repeated affixes with different lexical stems), paronomasia (homonyms).

[36] Brandt (1970: 162), for instance, defines it ("commutatio" for him) as "an antithetical figure, with the key words so reversed that one sentence or (more often) one clause is put in opposition to the other." Such a position is implicit in the *Ad Herennium* definition, with its focus on contradiction ([Pseudo-]Cicero. 1954 [c95 BCE]: 325), and explicit in Quintilian, who regards antimetabole as an order of antithesis ("Antithesis … may also be effected" by antimetabole, he says; *Institutio* III.497). See Fahnestock (1999: 128-131) for a historical sketch of such treatments. The term *antimetathesis*, sometimes just a synonym for *antimetabole* (*chiasmus*, *commutatio*) is also used more precisely for exactly this compounding of antithesis and antimetabole (Boag 1848.1:66; Maunder 1880:37).

[37] Farnsworth (2011: 104) calls these usages "dialogical applications," but he appears to mean "dialectical applications, " since all of his examples are oppositional, not conversational.

[38] In the context of the obsessively anti-florid style of Hemingway, it is hard to resist one more example, from another opponent of rhetoric (narrowly construed), Noam Chomsky, who has declared "the best rhetoric is the least rhetoric" (1991, 38): "Sure, you can communicate with your pet dog, and your pet dog can communicate with you Noam Chomsky" (2013).

[39] See Fahnestock 1999: 151-152 on correcting set relationships.

[40] See Aristotle on reciprocal definition in the *Categories*, with a clutch of antimetaboles: "All relatives are spoken of in relation to correlatives that reciprocate. For example, the slave is called slave of a master and the master is called master of a slave; the double double of a half, and the half half of a double; the larger larger than a smaller, and a smaller smaller than a larger; and so for the rest too" ($6^{b}28$; Fahnestock 1999:125, 206n2).

[41] In cases where identity slides into similarity, so that repetition is not exact (in, for instance, chiasmi of the *anthropomorphising* & *man*, *machine* & *mechanizing* sort), what I am calling the analogic affinity seems to kick in—though, indeed, it is an open question whether

there is one graded affinity or two distinct affinities at work. Is there an affinity for identity and another for similarity, or is identity 'total similarity,' similarity 'partial identity'? This question also bears on repetition, since full repetition is a matter of identity, while many repetitions (such as rhyme, repetition of syllablic nuclei) work by building a formal similarity between non-identical words (*horse* and *force* are phonologically similar because they have 'identical' nuclei and codas, but different onsets).

[41] While I am referring to a material sort of symmetry here—principally auditory and visual, though perhaps tactile as well—it is worth noting that Burke (1950: 58) sees a conceptual symmetry at work in antithesis, with antonyms balancing each semantically (his examples are *up* and *down*, *here* and *there*, *this* and *that*, all contrasted in isocolons). Given the harmony between antithesis and antimetabole noted above, this suggests another layer of symmetry in antimetaboles of the Kennedy-Sorenson type. See Turner (1998: 51-52) for some discussion of this conceptual symmetry, which he calls "*oppositional*, *bilateral*, or *heraldic* symmetry."