Prosody as iconicity: isocolon's semantic and rhetorical homogeneity effects

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1. Introduction

1.1 Isocolon

Isocolon is a figure of parallelism which puts two or more proximal phrases or clauses into prosodic alignment. Like most rhetorical figures, isocolon goes by many names, with varying degrees of precision, including *rhythmic parallelism*, *equality*, *cadence*, *compar*, *syzygia*, *tricolon* and *parison* (Dupriez and Halsall 1991: 146; Christiansen 2013; Peacham 1971 [1577]). As Harris (2018) argues, the history of rhetorical figures is rife with "idiosyncrasy, intellectual gallimaufry, and academic ideologies". So, for purposes of this paper, I stipulate a definition of *isocolon*, drawn from the wisdom of the tradition, but not attempting to accommodate all variations: isocolon is two or more multiword sequences with the same or similar prosodic contours, which entails the same syllable count and the same suprasegmental stress patterns. It will be helpful to distinguish isocolon from another figure, its frequent travelling companion, parison, which I define as two or more multiword sequences with identical syntactic structure. Isocolon effects prosodic parallelism. Parison effects syntactic parallelism.

Isocola are clearly used in abundance in poetry, since equivalence in metre between lines exactly satisfies the definitional criteria of isocolon, but it shows up in prose, as in example (1).

1. Two thousand years ago the proudest boast was "Civis Romanus sum." Today in the world of freedom, the proudest boast is "Ich bin ein Berliner." (Kennedy 1963)

(1) involves both parison and isocolon, but we are mostly interested in the isocolon between "Civis Romanus sum" and "Ich bin ein Berliner".[1] The parison brings together the two sentences comparing the Roman Empire to Berlin (or Germany), and the isocolon brings together the sayings or "boasts". It is worth noting that, when translated, the sayings are a parison—"I am a Roman citizen" and "I am a Berliner"—but certain efforts were made to ensure that they were also an isocolon. For example, Kennedy could have said "Ich bin ein *Deutscher*" instead of *Berliner*, but this would have resulted in different syllable counts, a prerequisite to equal prosodies. Lastly, Kennedy's speech is meant to be heard, rather than read, so the sayings are short and direct, and as a result have a certain mnemonic effects.

For clarity, we include an example of parison in (2).

2. ["]She believes that if the Pirahãs reject the gospel it's because it hasn't been communicated clearly. I believe it has been communicated clearly and they reject it because it's utterly irrelevant." [spoken by Dan Everett about Keren Everett] It's almost tragic: Keren's beliefs impugn Everett's competence; Everett's findings attack her entire belief system. (Barkham 2008)

(2) involves parison as well as some figures of repetition for the sentences in quotation (in particular, epanaphora and mesodiplosis, clausal-initial and clausal-medial lexical repetition, respectively), and isolated parison in the second section. Both sections bring together two sentences with the use of parison; the first compares two beliefs, and the second compares two actions implied as a consequence of these beliefs. Again, these sentences could have been worded in any number of ways, but the writers chose to use the same syntactic pattern to bring the sentences into alignment. Unlike with the isocolon from (1), however, these

[1] I make no claim that the original Latin and German prosodies are the same—which is outside my expertise—but in Kennedy's version they both get the same English (indeed, New England) prosodies.

statements were meant to be read, not heard, which allows for them to be longer and more complicated than the temporally-reliant spoken word.[2]

1.2 Iconicity

Rhetorical repetitions leverage what has been called *syntagmatic iconicity*, which is "iconicity within the linearity of text or discourse" (Nöth 2000: 23). They can further be classified as *endophoric* (or *intralinguistic* or *second-order*) *iconicity*, the resemblance not of signans and signatum, but of two or more signantia. We can see this with a prototypical example of iconicity, "Veni, vidi, vici". According to Johansen (1996), it is semantically, syntactically, and morphologically equivalent to "perrexi, circumspexi, superavi"; both have exophoric iconicity, where the order of words indicates the order of actions. However, only "veni, vidi, vici" combines exophoric with full endophoric iconicity with the rhyme and alliteration for all three bi-syllabic words. This sort of resemblance—"form miming form"—has semantic and rhetorical effects (Nöth 2000: 22). A resemblance between forms implies a resemblance of the evoked meanings. This claim is uncontroversial for full lexical repetitions. Special cases (like punning) aside, two instances of the same lexical signantia evoke two instances of the same lexical signata. But homogenization effects are both sub- and supra-lexical as well. On the sub-lexical level, repetition evokes not only similar signata but similar firing patterns in the brain. This will be described in more detail in Section 2. On the supra-lexical level, the repetition of meter (isocolon) or syntax (parison) also evoke similarity between the phrases repeating in structure.

Much of our discussion on isocolon will involve what Noth describes as "geometrical symmetry", which acts as a general model of iconicity, and names three different types of symmetry: translative symmetry, mirror symmetry, and antisymmetry. In syntagmatic iconicity, "we find parallelisms, reduplicative word formations and mere repetitions as genuine instances of translative symmetry", exemplified by the word strings *ask*, *what*, *your country*, *you*, and *can do for* in (3), the famous John F.

[2] As we note later in Section 4, according to Fahnestock (2005: 170), people "rehears[e] the speaking of those words without being aware of doing so" but parison has other resources than 'merely' auditory language as well because of visual persistence.

Kennedy example, or *sees*, *opportunity, difficulty,* and *in every* in (4), a common saying (2000: 23). Note that (4) contains both parison and isocolon, whereas (3) only contains parison. Figure 1 shows a visual example of translative symmetry about a point. Mirror symmetries are reflections such as in instances of antimetabole or other chiastic figures, as in the reverse-repetition of *you* and *your country* in (3) or *difficulty* and *opportunity* in (4). Figures 1 and 2 are both mirror symmetries. In the case of Figure 1, the translative symmetry and mirror symmetry about the median are identical. Antisymmetry is best characterised by pairs of opposites, such as *ask* and *ask not* in (3) or *optimist* and *pessimist* (and perhaps *difficulty* and *opportunity*) in (4). Figure 3 depicts an example of antisymmetry. Antisymmetry is not to be confused with *asymmetry* or the absence of symmetry, represented in Figure 4; antisymmetrical or antonymic objects are still highly similar. Two words that are very different—say, *optimist* and *behind*—are not antonyms. They must share most semantic attributes, and differ only on one salient attribute (*optimist* and *pessimist* are both nouns describing a person's outlook on the world, differing only in the valence of that outlook; *before* and *behind* are both deictics of direction, differing only, and inversely, in the horizontal orientation of that direction). That is the sense we can say antitheses are 'antisymmetrical' in ways that make them natural travelling companions of figures of parallelism. Johansen describes a similar kind of relation in the "intralinguistic play between similarity and dissimilarity", which are present in all three symmetries (1996: 50). Graves (1984) outlines a study by Attneave in which symmetrical patterns are shown to be easier to remember. We discuss cognitive effects of symmetry in more depth in Section 2.

3. And so, my fellow Americans: ask not what your country can do for you—ask what you can do for your country. (Kennedy [& Sorensen] 1961)
4. A pessimist sees difficulty in every opportunity. An optimist sees opportunity in every difficulty. (Doxa; often attributed to Winston Churchill)

Fig. 1. A curve with translative or mirror symmetry about the median.

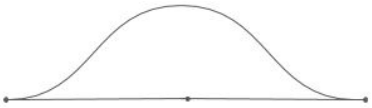

Fig. 2. A curve with mirror symmetry about the median.

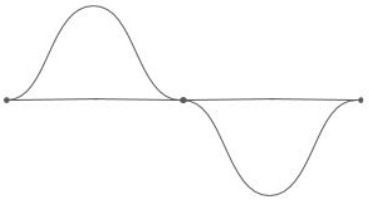

Fig 3. A curve antisymmetric about the median.

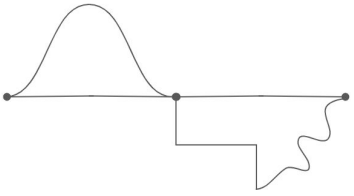

Fig 4. A curve asymmetric about the median.

Isocolon, however, involves *exophoric iconicity* as well as endophoric iconicity. According to Brinton, rhetorical figures are "used naturally by people in states of extreme emotion" (Brinton 1988: 163 qtd. in Müller 308). They could be used to evoke emotions and thereby invoke actions. Johansen describes the aesthetic and intellectual force of rhetorical figures. In his chapter bridging the gap between iconicity and rhetoric, Müller argues that exophoric and endophoric iconicity are not always clearly delineated, and that rhetorical figures as have both affective and logical inducements. Although most of our discussion will involve endophoric iconicity, we discuss possible exophoric effects in Section 4.

2. Repetition

According to Peirce, all cognition is semiotic and involves iconicity in some manner. Nöth argues that, according to Peirce, every sign "presupposes a prior acquaintance with [an] object", and, in viewing them, we evoke this prior acquaintance or memory of this object (2000: 25). Similarly, in *Symbolic inducement and knowing*, Richard Gregg describes all mind-brain activity as symbolic, from simple neural

firing patterns to all aspects of cognition. He argues that "all human experiencing is the result of brain processing which creates the structures we call 'meaning'" (Gregg 1984: 17). Neurocognitive functioning is therefore not only semiotic because of its role in the "bigger picture" of cognition, but in and of itself.

With that in mind, we look at the neurocognitive functions associated with repetition. Our ability to distinguish different events or to update information is dependent on the repetition or reuse of a brain's input signals. In fact, a particular neural firing pattern will potentially be reused under "sufficiently similar circumstances" (Gregg 1984: 46). Hence, the repetition of words, word strings, or some linguistic attribute can activate a repetition of neural firing patterns, which invokes not a geometrical symmetry but a kind of temporal one. Fahnestock (2005: 169) reports that "psychologists have recorded quicker recognition time[s] for highly constrained, predictable sentences". What makes a text predictable? Familiarity with its conventional form is fundamental to predictability. We can predict the ending of a story if we have encountered similar ones; in other words, if we have received repeated exposure to a genre of story. This is the kind of iconicity referred to by Nöth, wherein one text (in this case, a story) evokes our memory of past texts. We can predict that what comes at the end of the saying, "Readers don't need to write but writers do need to..." is *read* because of the repetition of the root words *read* and *write*, the suggestiveness of its overall chiastic form (a type of mirror symmetry), and the rhyme of *need* and *read* (a repetition of the final syllable in a word, so a translative symmetry). But it is not just linguistic predictions or expectations that repetitions can influence. They can also have semantic and rhetorical effects—for instance, with the so-called Rhyme as Reason effect, which tilts perceptions of credibility and veridicality. There is clear empirical evidence that people routinely judge rhyming statements to be more accurate, more trustworthy, and truer than non-rhyming paraphrases (e.g., McGlone & Tofighbakhsh 2000). The phonological sameness of words with identical final syllables increases (semantic) judgements of truth and (rhetorical) judgements of credibility; that is, rhyming brings a kind of homogeneity to words which transfers to associated predications (Haiman 1980: 517). This may be what Raimo Anttila has in mind when he notes that "language has a general iconic tendency whereby semantic sameness is reflected also by formal sameness" (1972 :89). Familiarity is therefore "a close relative of repetition" (Chien and Harris 2010: 166). Familiarity and its relative repetition

accomplish several things, both cognitively and functionally, allied with Kenneth Burke's notion of formal assent. In a classic passage from *Rhetoric of motives*, Burke gives an example of a series of semantically vacant antitheses (a type of antisymmetry), built on proforms and deictics: "we do this, but they on the other hand do that; we stay here; but they go there; we look up, but they look down". He states that "you will find yourself swinging along with the succession of antitheses" and that:

> a yielding to the form prepares for assent to the matter identified with it. You might have no interest in that associated matter. You may even reject it. But on the level of purely formal assent you would collaborate to round out its symmetry by spontaneously willing its completion and perfection as an utterance....assent on the formal level invites assent to the proposition as doctrine (Burke 1969 [1950]: 58).

And there is a lot of form to assent with in Burke's we-do-this, they-do-that passage. Burke only names antithesis, but there are several figures in his example, including alliteration, assonance, epanaphora, mesodiplosis, parison, and—of course—isocolon, which implicate not only antisymmetry but translative symmetry as well (Harris 2013:4). Tsur (1996) argues that the repetition of metre, which is prerequisite to our rhetorical figure isocolon, gives readers a sense of security because of its predictability—and Burke argues that predictability is key to a reader's primitive need for play and participation. Take another example that makes use of repetitive structure, including isocolon and parison.

5. Who is here so base, that he would be a bondman?

   If any, speak; for him I have offended.

   Who is here so rude, that would not be a Roman?

   If any, speak; for him I have offended.

   Who is here so vile, that will not love his country?

   If any, speak; for him I have offended. (Shakespeare, *Julius Caesar* 3.2)

We can see examples of translative symmetry in the repetitions of the word strings, "Who here is so..." and, "If any, speak; for him I have offended". If we assign these word strings the values *x* and *y* respectively, we have the structure

5*. x a_1, a_2

y

x b_1, b_2

y

x c_1, c_2

y

where x = "Who here is so", y = "If any, speak; for him I have offended",

a_1 = "base", a_2 = "that he would be a bondman?"

b_1 = "rude", b_2 = "that would not be a Roman?"

c_1 = "vile", c_2 = "that will not love his country?"

This pattern emphasises the antisymmetry between units a_1, a_2, b_1, b_2, c_1, c_2, which will be discussed in more depth in Section 3. However, there are still similarities between these units; in the case of (5*), certain units share the same subscripts, and in (5), the phrases following "Who would be so..." have the same syntactic structure. Furthermore, by the third question-conditional pair, readers are familiar enough with the structure that upon hearing, "Who is here so...", they will expect to hear shortly, "If any, speak; for him I have offended". The repetition also acts as a "piling on" of accusations and perhaps even of anger, that to disagree would be to be a bondman, not a Roman, or not a patriot (one who does "not love his country"). The ease of processing from repetition, therefore, makes us yield to the form and to want to agree that speaking out would be "base", "rude" and "vile".

3. Parallelism

The parison, partial isocolon, and copious amounts of repetition in (5) from Section 2 bring together the terms "base", "rude", "vile", and the concepts "bondman", not "a Roman", and someone who "will not love his country". The first list of terms are essentially synonyms (i.e., an instance of the trope, synonymia, a

repetition of meaning), whereas the second list of concepts is not, but the form of the passage makes it clear that Antony predicates the same essential quality of them (the lowness signalled by *base*, *rude*, and *vile*). Hence, the meanings of these concepts are brought together by nature of the passage's form. Likewise, the isocolon realized by, and the parison framing, the "proud boasts" in (1) brings together "Civis Romanus sum" and "Ich bin ein Berliner", and makes us compare the Roman Empire to Germany. We can say that the concept of being a Roman citizen and a German citizen are brought together again by the passage's form. Parallelism thus involves both translative symmetry and antisymmetry, and the translative symmetries bring together or at least force us to compare the a- or anti-symmetrical units, giving rise to what we call *semantic homogeneity*, which occurs both in (1) and (3).

The second phrase in a figure of parallelism "acts as a model with regard to the first: It is not identical to but also not isolated from the first" (Lotman 1972 qtd. in Christiansen 2013: 200). Because of its non-isolation, "the first member of a balanced pair suggests, or leads the memory on, to something parallel...in the second member" (Robb qtd. in Gregg 1984: 75). This is similar to Peirce's description of iconicity in cognition, wherein all signs leads the memory on to a prior acquaintance with an object. In his description of isocolon and parison, Peacham states that the first phrase is answered by the second phrase, like an echo. Fahnestock (2014: 226) argues that parallel phrases "can epitomize a comparison", a type of logical and exophoric iconicity.

As the Burke swinging-along example illustrates, antithesis is highly compatible with parallelism. Indeed it has often been defined as depending parallelism, to the point where it has been categorized as a scheme despite its obvious semantic core.[3] Antithesis is also conceptually 'symmetrical,' in the sense that the two predications are 'mirror opposites,' especially if the antithesis is expressed in antonyms (rather than syntactic negation). Consider this instance from Tennyson:

6. As love, if love be perfect, casts out fear,

   So hate, if hate be perfect, casts out fear. (Tennyson, 1855)

[3] See Harris (2019) for some discussion, in which he defines antithesis in exclusively semantic terms and reanalyzes typically parallel examples of antithesis from the tradition as collocations of antithesis and isocolon and/or parison.

In (6), much of the first part of the sentence is repeated in the second half as mere repetition or translative symmetry ("if....be perfect, casts out fear"). The intonations and the syntactic structures are the same, hence it instances both isocolon and parison together. Because "love" and "hate" are the only differing elements between the two parts of the sentence—in other words, a- or anti-symmetrical elements—readers and hearers are forced to compare the two words. The similarity between the two word groupings suggest that love and hate are not so different, not only because "if perfect, they cast out fear", but because the word groupings are structurally similar, again showcasing semantic homogeneity.

Fahnestock (2014: 169) argues that "similarity in at least one dimension...can impose a connectedness on consecutive sentences, even when their content is different" like the antithetical terms of *love* and *hate* in (5). The similarity in one dimension creates "more redundancy, and presumably efficiency, in their consecutive construal or processing in the brain" (Fahnestock 2014: 168). Hence, parallelism, like repetition, not only makes it easier for the brain to process utterances, but on the cognitive level gives us the homogeneity of consecutive clauses or phrases.

While it can make two concepts similar by embedding them in similar habitats, semantic homogeneity can also highlight the differences between two concepts. Returning again to (2), by using parison, Dan highlights the differences between his and Keren's beliefs on why the Pirahãs reject the gospel ("utter" irrelevance and unclear communication, respectively), whereas Barkham highlights the implications of these beliefs (Keren questioning Dan's competence on the one hand, compared to Dan "attack[ing] her entire belief system" on the other). By putting these concepts side-by-side, one of them is highlighted to be, in one case, supposedly intellectually superior, and in the other, harsher and more offensive.

Let's consider two more examples:

6. In prosperity our friends know us; in adversity we know our friends. (Doxa, often attributed to John Church Collins)
7. As Caesar loved me, I weep for him; as he was fortunate, I rejoice at it; as he was valiant, I honour him; but as he was ambitious, I slew him. (Shakespeare, *Julius Caesar*, 3.2)

Again, in (6), we see a semantic homogeneity established by the parallel framing of the isocolon and parison, along with the homoioptoton of the suffixes, which makes us take *prosperity* and *adversity*, near antonyms, and fully antithetical or antisymmetrical terms. All of these factors serve, further, to highlight the antimetabole (*our friends*/*us*, a mirror symmetry) in the passage. The semantic homogeneity therefore makes us compare two concepts, *prosperity* and *adversity*, and situations in which *our friends know us* and *we know our friends*.

The Shakespearean example (7) highlights both similarities and differences. The first part highlights how the Brutus treats Caesar well, weeping, rejoicing, and honouring him for his love, fortune, and valor, all positive states and traits. The last part surprises us with a negative trait, making us compare it to the aforementioned love, fortune, and valor. However, the overall form suggests that for every trait, Brutus gave a rational response: for a positive trait, Brutus gave Caesar a positive reaction, but for a negative trait, Brutus gave him a negative one. The semantic homogeneity allows us to draw parallels between each of Caesar's characteristics, highlighting both similarities and differences, and the parallels between each of Brutus's reactions, suggesting mostly similarity.

4. Rhythm

Up until this point, many of the points we have made about the cognitive effects of isocolon also apply to its cousin, parison. Furthermore, we have only described the endophoric iconicity of these rhetorical figures. In this section, we argue that isocolon, by virtue of being a rhythm-based figure, can evoke exophoric iconicity in a way that parison, a grammatical figure, cannot.

At the mind-brain level, just as Gregg (1984: 50) argues that repetition is fundamental to many neurocognitive functions, he states at *all* neurocognitive functions are dependent on the special kind of repetition known as *rhythm*. Rhythmic activity is fundamental to the vertebrate brain, as demonstrated by Waller's 2007 study of rhythmic productions by dolphins and coyotes. In humans, it was found that if auditory rhythm is impaired, "the stability of other sensory and allied systems may suffer as well" (Gregg

1984: 106). In an experiment by Nygaard et al. (2009), participants learned novel words more easily when introduced with words of similar prosody than when the prosodies were mismatched. Hence, speakers "use prosody to process word meaning" (ibid.). Our brain takes in, processes, and transmits data rhythmically. Gregg claims that rhythm is rhetorical, and Waller (2007: 109) claims that "rhythm is a precedent to language and symbolic meaning" altogether. Symbolic meaning, in turn, creates abstract thinking. A lullaby-like poem could inspire a reader to imagine "a lulling woman, a rocking-horse, or garden swing", and in general rhythmic patterns provoke an "aural image of bombardment"—all examples of exophoric iconicity (Bernhart 1999: 163; Gregg 1984: 143). For some readers, Bernhart (1999: 163) argues, the rocking of a lullaby could be an "intrinsically coded act", in that a reader could "feel" the corporeal reenactment of the lullaby's rocking, suggesting an embodied dimension to formal assent. For Bernhart, speech itself is a "movement system", and an essential expressive feature of rhythm is its "energy expenditure". Rhythm is, after all, not only neurocognitive, but neurophysiological. Furthermore, both Bernhart and Gregg agree that music, like language, can be influence one's brain, body and mood.

Vuust and Roepstorff (2008) summarise some of the literature comparing music and language. There are some clear differences, like the "temporal periodicity" in music that is not frequent in language, except as uncommon figures. There are, however, many similarities: music and language share some neuronal resources, especially under particular circumstances; music and language both group together phrases; musical rhythm has a syntax "analogous to language"; and musical metre "establishes predictive patterns that are similar to those of language" (Vuust & Roepstorff 2008: 149). As Burke points out, "music…is by its nature" heavily reliant on "the psychology of form" (1968 [1931]), setting up recurrent patterns of collaborative expectancy. As a part of these predictive patterns, music enables the constant creation of tension and relief, much in the same way that Burke (ibid.) describes narratives doing in the creation, rejection (tension), and satisfaction (relief) of appetites. Rhythm also encourages play and participation, another Burkean concept. Because rhythm is neurophysiological, "even parts of the body could feel the invitation to participate in the rhythmical pattern" (Gregg 1984: 75). Because it is so fundamental to our cognition, repetition, especially acoustic repetition, can make things more memorable.

According to (Gregg 1984: 73), "[c]oncrete events and acts are vivified and remembered by means of stylized verbal forms".[4] Furthermore, just as language can leave an imprint on one's perception of the world (such as with "conceptual metaphors" or analogic frames), spoken prosody can have a lasting impression on the music of a culture. In a study, Patel and Daniele (2003) compare the nPVI (normalized Pairwise Variability Index, measuring durational variability) values of French and English with the nPVI values of French and English classical music. They found that "English and French classical music have significantly different nPVI values, and that this difference is in the same direction as that observed for language" (Patel & Daniele 2003: B42). In another study, Vuust and Roepstorff (2008) describe jazz as having similar communicative practices as in verbal language.

Rhythm, music, and aurality are fundamental to language. According to Fahnestock (2005: 170), research shows that when reading words, people "rehears[e] the speaking of those words without being aware of doing so". Hence, language always has an aural side, in cognitive terms, even when being read silently. Human children do not develop speech until they have developed the frequency of their rhythmic motor to about 7 clicks per second or faster, which occurs around age two (Gregg 1984: 102). In Waller (2007: 104), Brandt explains that prosody plays a role in language: conversations and speech acts consist of "dialogical rhythms of turn-taking" and "[i]n all known languages, regular intonation patterns connect lexical items and syntactic constructions". According to Perlman et al. (2015), prosody is "constrained by a multitude of factors, including the syntax and phonology of the utterance, as well as paralinguistic factors like the speaker's attention, emotion, and attitude", and that, "taken together, [this shows] that people have a tendency to modulate their prosody in iconic correspondence with certain meanings." Language and rhythm are closely related and interdependent.

Music, or rhythm in general, and language share many common characteristics, capable of producing meaning; encouraging play, participation, and turn-taking; creating tension and relief; and imprinting on

[4] Writing in the 1980s when the study of figures was at a low point—to the extent that it was stigmatized and could hinder publication—Gregg ignores them altogether, but 'stylized verbal forms' is clearly euphemistic for rhetorical schemes like isocolon, parison, rhyme, and so on.

culture and perception. This is because rhythm is prerequisite not only to neurophysiological functions, but to neurocognitive functions like speech and language as a whole.

5. Conclusion

Isocolon takes advantage of the overlapping notions of repetition, parallelism, and rhythm and their key role in human (and vertebrate) neurocognitive and neurophysiological functions, combining both exophoric and endophoric iconicities. Rhythm is prerequisite to and fundamental to language, and repetition to our understanding of concepts like narratives and forms. Repetition of rhythm, among other things, invokes a sense of parallelism so that the similarity in form invites readers to consider a similarity in matter; that is, rhetorical homogeneity. All rhetorical figures are cognitive in some way, and when combined together, become much more effective.

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