COGNITIVE SEMIOTICS

Multidisciplinary Journal on Meaning and Mind
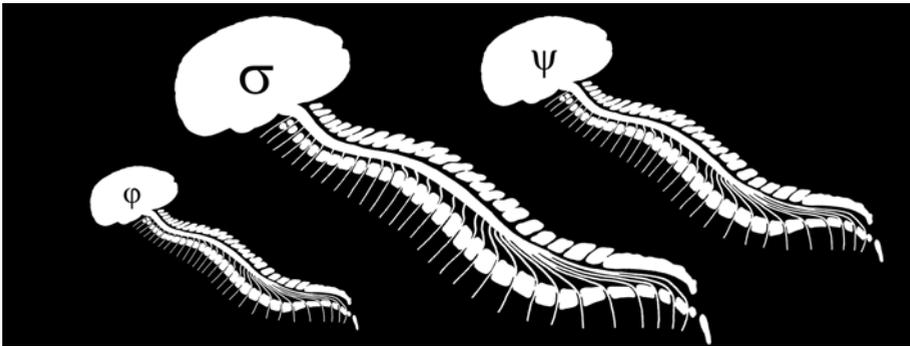
Issue 6 · Spring 2010

Lynn Chien & Randy Harris

Scheme Trope Chroma *Chengyu*:
Figuration in Chinese Four-character idioms

In this paper, we have three inter-related goals: to explore the cognitive interrelations among form, content, and intention among Chinese four-character idioms, or chengyu; to update the standard taxonomy of figures; and to criticize the self-imposed limitation of cognitive figuration studies to only one wing of that taxonomy. The standard taxonomy has two categories: schemes (deviation from form, like rhyme), and tropes (deviation from content, like metaphor). Cognitive studies of figuration are preoccupied with tropes alone, and with only a few of those, while the traditional taxonomy badly mishandles figures like interrogatio (rhetorical question), which are deviations of intention (that we call chroma). Our preliminary survey of chengyu reveals the interplay of these three categories; highlights the importance of schemes, largely neglected in cognitive studies of figuration; and crucially implicates chroma, largely neglected in all theories of figuration.

CORRESPONDENCE: Lynn Chien. Department of English, University of Waterloo, ON, Canada. EMAIL: lynn.chien@gmail.com | Randy Harris. Department of English, University of Waterloo, ON, Canada. raha@uwaterloo.ca

Rhetorical Figures, traditionally defined in terms of deviation from everyday, literal speech, come in three general categories—schemes, tropes, and what we call *chroma*. The first two categories are well known, schemes defined traditionally as deviations of form, tropes as deviations of content. A prototypical scheme is antimetabole, in which the order of words are inverse in proximity ("I meant what I said and I said what I meant"). A prototypical trope is simile, in which an out-domain comparison is made explicit ("Oriana is like a ninja-penguin"), in contrast to an in-domain comparison ("Oriana is like Irena"). The third category, chroma, is less well known, and the name is novel with us (we are filtering the medieval and early-modern term, *color* through the Greek naming conventions of *scheme* and *trope*). *Color* was something a grab-bag of figures that somehow didn't fit into the other two categories.[65] *Chroma*, in

---

[65] In his gloss of Thomas Wilson's *Art of Rhetoric*, Peter E. Medine gives them a typically kettle-of-fish definition, calling them "figures of thought and figures of diction not included in [tropes]" (Wilson 1994: 282), but even this is insufficient since many of Wilson's colors more clearly align with form than with content. Medine briefly notes the provenance of the term.

our usage, is more systematic, unified by a notion from twentieth-century philosophy of language. We define chroma, for the moment, as deviations of intention. A prototypical chroma, then, is erotema (rhetorical question—"Is the pope catholic?"). A conventionally deployed question seeks information. The intention is to induce a response. It is asked; a reply is awaited. A rhetorical question insinuates information (and/or an attitude). The intention is to provoke the audience's mental engagement along prescribed lines—evoking, but not actually initiating, a dialogue. An erotema is not really asked. It is stated; no reply is expected. The context specifies the answer (or the sort of answer) that harmonizes with the rhetor's argument.

Deviation, of course, is not exactly the right term here, however traditional, for chroma or for schemes and tropes, since linguistic maneuvers from all three categories are so pervasive in speech and writing that to call them deviant is to misunderstand the basic resources of language. Moreover, truly deviant language ("I are a beside") is best understood in terms of grammatical expectations, not in terms of calculated, purposeful linguistic moves. So we prefer to define all three of these categories in terms of salience. A scheme is a figure which evinces formal salience. Something about the form draws attention. A trope evinces conceptual salience, a chroma intentional salience. All language (indeed, all symbolism, and much semiosis) has formal, conceptual, and intentional dimensions. Figured language evinces salience on one or more of those dimensions.

We have two further points to make about this taxonomy, which we will then use in this paper without further defense or elaboration. Firstly, our flat tripartite framework has obvious relations to the nested bipartite classical framework of figures of speech (including schemes and tropes) and figures of thought (with no subspecies), as in Demetrius and Quintilian, adopted most prominently in contemporary times by Richard Lanham's (1991) wonderful *Handlist*. But the traditional nested categorization is inadequate for at least the following three reasons.

1. It is based on a binary language/thought distinction that is not tenable, being especially confused in its separation of tropes from the realm of thought.
2. It instantiates a hierarchy in which the three kinds of figures are not grouped equally. And
3. The figure-of-thought category is essentially a dumping ground for rhetorical maneuvers that are clearly figures but which challenge the scheme/trope (form/concept) categorization, rather than a rationalized category on its own.[66]

---

[66] Lanham (1991:116), for instance, defines figure of thought as a "large-scale trope or scheme or a combination of both," betraying its roots in the inadequacy of the scheme/trope division for many traditional figures, but "large-scale" is clearly ad hoc. There is nothing

Our flattened set of three rationalized categories has none of these failings.

Secondly, we feel that our taxonomy has considerable promise for helping to sharpen the perennially problematic boundary area between literal and figurative uses of language. While *deviation* is rightly a rejected word in recent studies of figuration, largely because of the pervasive presence of figurative processes in quotidian discourse, and even in specialized discourses that trumpet their own literality, like those of science and technology, there is a clear and definite sense in which people recognize figurative elements in language on the basis of some departure from presumption and convention, and on the perception of design. We believe that when form, content, and intention are all in close synch with each other, and with convention, language use can fairly be called literal. When there is an imbalance, when there is added salience to one of those dimensions, language use can be fairly described as figurative. If the weighting is more heavily on form, we get a prototypical scheme; on concept, a prototypical trope; on intention, a prototypical chroma.[67] Now, thinking of figures in prototypical terms of salience shifts allows us to suspend (as most literature on figuration does, often without comment) the design considerations of figuration that have been virtually definitional of rhetorical and literary work on figures. That is, we need make no distinction between Shakespeare's "If you prick us, do we not bleed?" (*Merchant of Venice* III.1.68) and any street corner's "Is the pope catholic?" The first one is a consciously designed expression, the second a commonplace, drawn from the storehouse of English catch-phrases rather automatically, but they are both erotema—questions that do not ask but insinuate (respectively, "we are just like you" and "that is so obvious as not to require comment")—whether carefully crafted by an author or conventionalized by a culture.

With these few remarks, we would like to explore Chinese four-character idioms, or *chengyu,* a widespread linguistic instrument in Chinese languages in which all three of these salience moves play various roles, but which depend most heavily on the dimensions of form and intention. We introduce our taxonomy here simply because we can't do justice to a rhetorical consideration of *chengyu* without a classification of figures that goes beyond schemes and tropes and because the figure-of-thought class is deeply inadequate. *Chengyu* are hybrid figures. Inescapably, they are schemes. They have an unmistakable and highly characteristic form—as characteristic as limericks or knock-knock jokes in English. Inescapably, they are also chroma. They are fundamentally ethotic—

---

large-scale about erotema, for instance, and schemes like ploche or tropes like metaphor can operate on quite large scales indeed.

67   Although this approach holds great promise, in our estimation, we recognize that it requires far more specificity and argumentative support than we can give it here. In particular, it requires considerable negotiation with the Gricean literature on figuration and with speech-act theory. We are aware, too, that notions like "close synch" need to be fixed on the basis of a robust speaker-hearer model. Still, we plow on.

as fundamentally ethotic as using a Latin phrase or a Shakespeare quotation in English, associating the speaker with a tradition of high literacy. And ethos in this technic mode is a product of intention. Additionally, they are figural bundles. Just as a quotation from Shakespeare is almost always tropic ("All the world's a stage"), schemic ("Tomorrow, and tomorrow, and tomorrow"), or chromatic ("What's in a name?"), so *chengyu* encapsulate other figures.

Chengyu exemplify the cognitive interrelations among form, content, and intention in figuration. In particular, we argue that figurative patterns commonly found in *chengyu*, such as isocolon, ploche, antithesis, and a loose synonymia, accord with cognitive affinities. As such, sidebar to our argument below concerns the importance of form to cognitive rhetoric, something that has been greatly overshadowed by a focus on conceptual relations. In particular, we also take issue below with the semantic chauvinism of idiom studies in the cognitive tradition.

What are Chengyu?

Chengyu (成語*),* which literally translates as "set phrase(s)" (recall that the Chinese languages are unmarked for number), are concise evocative idioms, each made up of four characters.[68]   *Chengyu* match up precisely with the defining criteria for idioms that Nunberg, Sag, and Waso (1994) identify. They are *conventional*, *inflexible*, *figurative, proverbial*, and *valenced*[69] A typical example is given in Figure 1.

Representing a tradition that dates back thousands of years, *chengyu* are conventionalized and range in usage from quotidian sayings to rare and highly erudite locutions, connoting intelligence, sophistication, and culture. There are between 5000 and 40 000 *chengyu*, depending on the strictness of the classification. The Academy of Chinese Studies and the Taiwanese Ministry of Education are currently conducting projects to place all *chengyu* in a database

---

[68]   We will not consider the very cognate Japanese four-character idioms, 四字熟語 (yoji-jukugo). We are confident that our observations would hold for the Japanese case as well, since yoji-yukugo derive from *chengyu*, both generally (the overall phenomenon) and specifically (a vast number of yoji-jukugo are directly borrowed *chengyu*). We simply have insufficient expertise in Japanese to include yoji-yokugo in this paper.

[69]   We have changed their terminology slightly. Nunberg, Sag and Waso. (1994:493) use *affective* to identify an important aspect of idioms, which is particularly crucial for *chengyu*: the fact that they convey "a certain evaluation or affective stance." However, *affective* in the fields of cognitive studies has come to denote emotional impact almost exclusively, without any notion of judgment or general attitude. So, we substitute *valenced* for the evaluative/attitudinal dimension of idioms here. We also eliminate one of their criteria altogether. They regard *informality* as criterial for idioms. As we note below, while it is true that many idioms are characteristic exclusively of informal registers, we see no reason not to regard many of the set phrases of high literacy (academic discourse, medical discourse, legal discourse, and so on) as equally idiomatic; certainly discourses of high literacy are full of *conventional*, *inflexible*, *figurative, proverbial*, and *valenced* phrases. In any case, *chengyu* operate in a range of registers, not just informal ones, and a significant number of *chengyu* are present *only* in formal discourse; indeed, they *are* markers of formal discourse.

and to classify them according to criteria such as their origins and their popularity in usage. This database assigns (suitably) four general origins for *chengyu*: significant historical events, myths and fables, classic literature, and conventionalized common phrases (Academy of Chinese Studies 2001).

Each *chengyu* consists of four characters assembled into a whole, self-contained, ~~markedly~~ ungrammatical expression; the diction and syntax have been set and closed. *Chengyu*, by their very nature, are unavoidably figurative, if not fully poetic, since they ~~never~~ form a grammatically correct sentence. They are all solecisms. They always lack conjunctions, subjects, and/or predicates. The idiom "*wen gu zhe xing*" (溫故知新), in Figure 1, for instance, transliterates as *review old know new*. It originates in the Confucian *Analects* (2.11)[70], and functions as an encapsulated unit of doxa, like an English proverb, counseling people to review previously learned material in order to gain new insights. The order of these characters, as with any *chengyu*, cannot be changed and the meaning is recognized from the sequence as a whole.

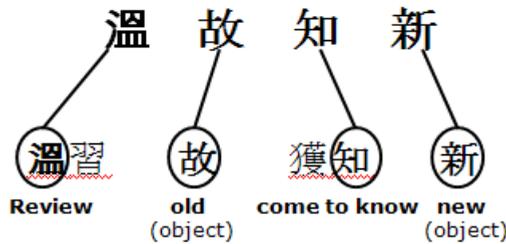*Figure 1*. A typical *chengyu*

Figure 2. Implied syntax in *chengyu*

The characters within a *chengyu* are highly conventionalized as well, chiefly to accommodate the four-character structure, and these conventions draw on the linguistic and cognitive strategies the Western rhetorical tradition identifies with figuration. For example, the first character *wen* (溫) means 'warm,' but when paired with the character *xi* (習), it becomes the term *wenxi* (溫習), which

---

70   溫故而知新，可以為師矣 "review old to know new, can become teacher"

means 'review.' *Wen* in this *chengyu,* that is, functions as a synecdoche for the two characters necessary for *wenxi*; in the context of this *chengyu, wen* (溫) means 'review,' not 'warm,' as it would in standard usage. The second character, *gu* (故) means 'old,' an adjective. The noun that *old* would normally modify has been left out, an ellipsis. The third character *zhe* (知) means 'know,' but when paired with *huo* (獲), meaning 'obtain,' becomes "*huozhe*" (獲知), which then signifies 'come to know;' another synecdoche. The fourth character, *xin* (新) is an adjective meaning 'new.' Again the expected noun is left out; another ellipsis.[71] The resulting *chengyu* takes shape in accord with two governing figures, the scheme isocolon (verb-adjective/verb-adjective) and the trope antithesis ('old' and 'new').

Chengyu appear in both colloquial and formal registers, in both speech and writing. There are a number of common *chengyu* that are used conversationally in everyday social interactions, most of which exhibit strong schemic patterns, such as isocolon and ploche, and involve truncations of various sorts, condensing more complicated structures to the requisite four characters that would best, in aesthetic and practical terms, abridge some doxic adage. In a sense, they are similar to English abbreviations, when they condense several words or phrases (akin, that is, to expressions like asap, condensed from "as soon as possible"—sometimes pronounced as the letter-names, sometimes acronymically), or to proverbial morals, when they condense entire fables (akin to expressions like "slow and steady wins the race"). As with familiar abbreviations and proverbial morals in English, the meaning of *chengyu* is often understood quickly without any consideration of the origin. One needn't know all the words corresponding to the letters of *fubar* or *radar*, or any of them, to use and understand those words in daily English—nor even the stories behind *sour grapes* or *birds of a feather*, to utilize those expressions. But this sort of autonomy is perhaps even more true of *chengyu*; people who can and do use them often know only what the expressions mean and their appropriate conditions of deployment, but do not know (or know only vaguely) what sponsored the characters in myths, fables, or other doxic traditions.

There are also large numbers of *chengyu* that are fairly obscure, even arcane, and therefore more difficult to use and understand. The teaching of *chengyu* is

---

71 Since both figures, synecdoche and ellipsis, might be regarded as omissions, the distinction here may not be entirely clear. The omission of xi (習), for instance, we regard as synecdoche because it is clearly recoverable, and because wen (溫) is clearly a part of the whole "wenxi" (溫習). On the other hand the nouns are not recoverable (except, in some cases, by context). Some unspecified old thing and some unspecified new thing are evoked by gu (故) and xin (新) but the *chengyu* is deliberately vague as to what those things are. Another possibility for what we are treating as ellipsis, of course, is a kind of polyptoton, a nominalization of the adjective. But that is probably an unnecessary complication, since the Chinese languages use particles to nominalize adjectives, which are not present here (hence, the structure would have to be treated again as ellipsis), and since there is no repetition of the stem, which polyptoton traditionally requires.

therefore an essential part of education in all places that speak any Chinese language or dialect. Still, only relatively few of them can be taught in school, due to their vast overall number, and to the intimate relationships so many of them have with thousands-of-years-old historical events or classical literature. One needs to be well-versed in history and literature to know and use the more uncommon *chengyu*. It is this dimension of *chengyu* usage that largely serves the ethotic function of signifying erudition and intelligence. Even the very form of *chengyu* suggests high culture. Although there are only a fixed number of *chengyu* that are recognized as proper conventional idioms, for instance, the truncation of phrases to four characters and the naming of objects using only four characters (such as the names of dishes in restaurants) is an established practice in Chinese. The four-character structure itself signifies culture and refinement.

The figural study of idioms has often concentrated on tropes (for instance, Gibbs 1994: 265-318), leaving out both schemes and chroma. In the following sections, we demonstrate the rhetorical importance of schemes (that is, of form) and chroma (intention) in the structure and operation of *chengyu*.

The schemic dimensions of chengyu

The most inflexible and identifiable—indeed, definitional—schemic pattern of *chengyu* is the four-character pattern. *Chengyu* scholar, 莫彭龄or Peng-ling Mo (2003: 54), in"'四字格'与成语修辞" or "'Four-character style' and the Rhetoric of *Chengyu*"[72] suggests that "*[c]hengyu*'s basic form, the four-character style… is not a coincidence, but [has] a deep cultural connotation." In specific, he argues that:

> The four-character style became the main form of *chengyu* because it is a form that best represents solemnity and elegance, characteristics that are a part of the Chinese language and culture. It is [also] the most in line with the *Han* Chinese culture's aesthetic demands of 'to pair be good' [and] 'four words be right'[73]…'To pair be good' stresses duality, symmetry and parallelism, [qualities which are] very important to the *Han* Chinese cultural consciousness. The four-character style can best embody the aesthetic demand of "to pair be good"…while a three-character style clearly shows an "uncouth" quality. (Mo 2003: 54)

At first blush, Mo's conviction that pairing, symmetry, and parallelism are aesthetic affinities especially resonant with the Chinese culture admittedly looks somewhat chauvinistic, but we think there is a reasonable cognitive explanation for the powerful consonance between the basic structure of *chengyu* and

---

[72] Unless otherwise noted, all translations in this paper are those of the first author, relying on various sources (existing translations, translation dictionaries, and so on) to help ensure accuracy.

[73] Both "to pair be better" (**以偶為佳**) and "four words be right" **四言為正**' are *chengyu*.

Chinese. Consider in the first place how odd this adamant four-character scheme is from a Western perspective—indeed, how odd any comparably adamant scheme would be. While English adages and proverbs are very heavily figured, suffused with rhymes and repetitions and personifications and similes, there are no instances of the same relentless formal patterning as *chengyu* show. A parallel situation in English would be if a significantly high proportion of its sayings were rendered in iambic couplets. In the second place, consider the fundamental difference in logographic and phonological literacies. A logographic signifier (colloquially, a character) represents a lexical (or, sometimes, phrasal) signified, with no indication of pronunciation. (This phonological independence has a strong culturally unifying effect, since communities who have mutually incomprehensible lexicons can still read the same texts; imagine, for instance, if there was one symbol that stood for *dog*, *chien*, *hund*, *perro*, *cane* (and so on), so that English, French, German, Spanish, Italian (and so on) speakers all used it, and thousands more such symbols, to communicate.) An alphabet does not represent words directly at all. It utilizes graphemes which represent sounds and which are assembled into the pronunciations of words. The signifier/signified linkage is more direct in a logographic system, then, whereas in alphabetic systems the signifier and the signified are mediated through another level of representation, sound. A rather dramatic consequence of this, of course, since there are far more words and phrases in a language than sounds, is that the visual memory demands are very high for a logographic system. There are approximately 50 000 Chinese characters in total, with approximately 7 000 in general daily use. English orthography, in contrast, only uses only twenty six letters.

There are also, in the third place, significant phonological differences between the two languages. In particular, the structure of Chinese—including its relatively low syllable inventory and its analytic morphology—gives it a very high homophone density. In consequence, many logographs are pronounced the same even though they correspond to completely different words with different meanings. With English, on the other hand, because of its phonological script, the sound of a word is determined by how it looks, by the way it is spelled, even though the spelling system is somewhat erratic; and, further, because of the long orthographic history of the language, the meaning of some words can be distinguished solely by orthography, even when the pronunciation is the same (as in *real* and *reel* or *for*, *fore*, and *four*), so that sound history plays a role in English literacy. And finally, the phonological diversity of English—with a relatively large syllable inventory, relatively synthetic morphology, and scandalously large number of borrowings—puts a high premium on sound distinctions, on the system of what Saussure called acoustic values.

It should not be surprising, therefore—as we return directly to Mo's observations—that several studies find a significant difference between people primarily literate in Chinese, who rely more on visuospatial memory, and

people primarily literate in English, who rely more on the phonological loop of short-term memory (Perfetti, Bell, & Delaney 1988; Perfetti & Zhang 1991; Huang & Hanley 1995). These findings, further, have a rhetorical dimension when considered in light of Schmitt, Pan and Tavassoli's (1994: 428) report that "Chinese consumers are more likely to recall information when the visual memory […] is accessed ... [while] English native speakers seem to be more likely to recall information when the phonological trace is accessed." While Schmitt and his colleagues were interested in consumer behavior, the important point for our purposes concerns the implications their findings have for the respective salience of the visual dimension for logographic literacy and the auditory dimension for phonological (that is, alphabetic) literacy. In particular, they implicate a difference in field-dependent cognitive styles that is intriguing with respect to Mo's claims that there is something uniquely Chinese (in the cultural sense) about *chengyu*. Now, we don't have a particular stake in whether the cognitive affinities of *chengyu* are field dependent or field independent; indeed, we feel both are involved. But cognition is unquestionably indicated in a phenomenon with such cultural resilience, such that generation after generation for millennia resonates to the structure of *chengyu*, while another culture is indifferent to comparable possibilities, and we believe that the most reasonable explanation for this phenomenon is to be found in logographic cognition.[74]

The cognitive aspects of visuospatial perception, in any case, suggest that the number of characters in *chengyu*—if not four exactly, then certainly the fact that the number is even—can be related to the cognitive importance of balance and symmetry. As Rudolph Arnheim (1954: 20) puts it:

> In a balanced composition, all such factors as shape, direction, and location are mutually determined by each other in such a way that no change seems possible, and the whole assumes the character of "necessity" in all its parts. An unbalanced composition looks accidental, transitory, and therefore invalid.

The balance of four characters is additionally reinforced through the pairing of the constituent characters, effectively resulting in a symmetry inside a symmetry. Each and every *chengyu* is two sets of two characters. In each pair, the characters are either semantically or grammatically related to each other. For example, in Figure 3, "self other spear shield" is a *chengyu* that describes two

---

[74] *Logographic cognition* is our coinage, implying the corollary *alphabetic cognition*. Seriously advancing these concepts would require far more research than we can conduct in the scope of this paper (though results like those of Schmitt *et al.* 1994, and Hardin *et al.* 1998, lean in the direction of such a distinction). We are simply working extrapolating from Ong's momentous work on the oral and literate cognition (1958, 2002), on the recognition that there are different literacies, and on the common-sense notion that the mind needs to cultivate somewhat different dispositions to process 7 000+ whole-word systems than to process combinatoric systems relying on 26 sound signifiers (i.e., the sort of system Ong associated exclusively with literate cognition).

things that conflict with each other. The characters "self other" are one semantically related set, "spear shield" the other. In the case of "one drum make morale," describing a need to perform an entire act without a break, "drum" is modified by "one" in the first pair, while "make morale" is a predicate comprising the second. In the case of "fox fake tiger prestige," describing someone who uses other people's power to gain benefits, "fake" is the action the "fox" makes, while the "prestige" is the possession of the "tiger." This balance gives *chengyu* much of their aesthetic power.

自 zi self　相 xian other　矛 mao spear　盾 duen shield

一 yi one　鼓 gu drum　作 zuo make　氣 chi morale

狐 hu fox　假 chia fake　虎 hu tiger　威 wei prestige

Figure 3. Character pairing

Visual fluency and Schemes: Symmetry, Contrast and Repetition

The way we process information shapes how we perceive the information, and the way we perceive something, in turn, affects the way we judge it: form is persuasive (Burke 1950, 58). Humans show a remarkable sensitivity to symmetry, and symmetrical structures require the least cognitive effort to detect and remember (Wageman 1997). In their study of visual perception, Winkielman, Schwarz, Reber and Fazendeiro (2004) found that human judgment, in terms of both appeal and veracity, is influenced by the ease with which we can process perceptual information, known as visual fluency. When a stimulus is easy to process, it is likelier to be judged more appealing and more true than a stimulus that is difficult to process. Moreover, Winkielman *et al.* demonstrate that symmetry is one of the chief features of an image which can facilitate perceptual processing, and, in turn, increase the appeal of the percept. Further, symmetry is often detected preattentively; that is, human attention gravitates toward symmetrical stimuli without being explicitly directed to find

such stimuli (Wageman 1997). *Chengyu* operate in the visual mode when deployed in writing, of course, but Winkielman *et al.*'s findings extrapolate to aural perception very naturally as well, so those findings are also explanatory for *chengyu* used in speech.

守 株 待 兔
sho zhu dai tu
guard tree wait rabbit

拔 苗 助 長
ba miao zhu chang
pull seedling help grow

畫 龍 點 睛
hua long dian jing
draw dragon dot eye

Figure 4. Chengyu involving isocolon

温　故　知　新
wen　gu　zhe　xin
review　old　know　new

七　上　八　下
qi　shang　ba　xia
seven　up　eight　down

東　奔　西　走
dong　ben　xi　zou
east　dash　west　go

Figure 5. Chengyu involving isocolon and antithesis

The basic scheme of aural symmetry is isocolon, the proximal deployment of parallel grammatical structures, frequently with the same number of words; in exceptionally tight parallelism, with the same number of syllables. Figure 4 includes a selection of *chengyu* that involve the figure isocolon using the pattern of A-B // A-B, where A is one part of speech, B another. Isocolon is especially effective with the solecistic style of *chengyu*, because its symmetrical character can "[tie] together features that can otherwise seem diffuse" (Loy and Elklundh 2006: 508). Antithesis (a trope), as in Figure 5, often reinforces isocolon in *chengyu*, while asserting a contrast.

Perceptual effectiveness is shaped by a large number of factors beyond symmetry and balance—including *figure-ground contrast*, *clarity*, *presentation duration*, and *familiarity* (Winkielman *et al.* 2004)—many, if not all, of which are implicated by *chengyu*. The fundamental solecistic nature of *chengyu*, for instance, by way of contrast, stands out as a figure against the ground of everyday grammatical language—as would mayhaps, an archaic word in English, or *inter alia*, a Latin phrase. Isocolon, in particular, improves the perceptual *clarity* of the idioms through its symmetrical salience. Moreover, there are also many other common schemes that can be identified in *chengyu* that cater to the principles of visual fluency.

Familiarity is a function of recurrent exposure. The more one hears or sees or otherwise experiences something, the more familiar one becomes with it (sometimes, of course, unto contempt, but in the right doses, unto comfort and security). That is, familiarity is a close relative of repetition. It has also been found that shallow repetition—i.e. repetition of variables that are not

conceptually deep to process, most obviously in music—increases pleasure.[75] *Chengyu* traffic incessantly in shallow, and immediate, repetition—chiefly through a kind of synonymia (a trope, conceptual repetition in different words; see Figure 6) and ploche (simple lexical repetition; Figure 7). Numerous studies demonstrate that repeated exposure to a stimulus without any reinforcement leads to a gradual increase in appeal (Winkelman *et al.* 2004).

In addition, Winkielman *et al.* find that perceptions of veracity are influenced by familiarity. They point out that "a given statement is more likely to be judged 'true' the more often it is repeated" (2004: 79). Using the findings of Reber and Schwarz (1999) that a given statement is more likely to be judged true if it is easy to read, Winkielman *et al.* (2004: 79) maintain that it is "presumably because perceptual fluency elicited a feeling of familiarity." While *chengyu* operate on too small a scale (four characters) for familiarity to play any role in the direct perception of an individual example, there are two ways in which the repetition Winkielman *et al.* chart plays a role. Firstly, there is the familiarity of the proverb: memorable expressions that get repeated in similar contexts within the culture achieve the doxic status of phronetic reliability, if not complete veracity. Secondly, immediate repetitions evoke a reinforcement that increases their effect, as in the intensifier repetition familiar in many registers of English (especially among children, who might complain that something is "really, really heavy," or praise something is "very, very good." Indeed, a repetition is tautologically accurate. If it weren't an extremely accurate echo of some preceding element (to the point where it is recognized as identical), it would not qualify as a repetition.

The *chengyu* in Figure 6 involves a loose synonymia, where the two sets in a single *chengyu* convey similar concepts in different words. For example, *big knife* and *wide axe* are both large weapons that suggest power and the conceptual repetition doubles up the suggestion, intensifying it. "Big knife wide axe" is used to describe a situation in which one side has great power. Similarly, Figure 7 shows a number of *chengyu* that involve ploche, in combination with either antithesis or a kind of tmesis (separating characters that generally are used together, the rough equivalent in English of interrupting a compound word). For example, *head* and *brain* are used together to denote *sense*, but in "dull head dull brain," they are broken up by a repetition of *dull*, emphasizing the lack of common sense. The principle operating here is one of the chief iconicity functions of reduplication in language: more instances of a signifier correspond to greater 'quantities' of the signified; in this case, greater dullness.

---

[75]   Repetition of information that *is* conceptually deep, however, or takes substantial cognitive work, decreases pleasure (Nordhielm 2004).

大 刀 闊 斧
da dao kuo fu
big knife broad axe

陳 詞 濫 調
chen ci lan diao
overused words overflowing rhythm

粗 製 濫 造
chu zhi lan zao
rough make overflowing produce

Figure 6. Chengyu involving synonymia

呆 頭 呆 腦
dai to dai nao
dull head dull brain

百 依 百 順
bai yi bai shuen
hundred accord hundred yield

知 己 知 彼
zhe ji zhe bi
know self know other

Figure 7. Chengyu involving ploche and tmesis or antithe**sis**

And, of course, there is a more immediate way in which repetition of the signifiers has cognitive effects. Visually, the repetition of characters increases

balance and symmetry; aurally, repetition of the words affects rhythm. Visual Fluency is, in short, a significant factor in the suasive successes of *chengyu*.

Memory

Visual fluency may not be the only factor in the rhetorical power of the four-character form of *chengyu*. Another cognitive factor that may contribute to the four-character style is that it aids in memory. Four is the average number of "chunks" that our short-term memory processes. George Miller (1956) found, in his seminal studies at the beginning of the cognitive revolution, that we naturally "chunk" items to optimize the processing capacities of short term memory. At the time, Miller argued that "seven, plus or minus two" was the magic mnemonic number. In 2000, however, decades downstream from Miller's work, Nelson Cowan pushed this number down somewhat, centering on four. He brought together a wide variety of data on capacity limits and concluded that "[t]he preponderance of evidence from procedures fitting these conditions strongly suggests a mean memory capacity in adults of three to five chunks, whereas individual scores appear to range more widely from about two up to about six chunks" (Cowan 2000: 114); that is, 4±1.[76] Since the characters in *chengyu* ~~never~~ form a grammatical sentence, they can seem random and dissociated: chunks *par excellence*.

Figuration and cognition

Figuration in language helps us communicate more efficiently and more effectively; it livens up discourse, it creates a bond between the orator and the audience, and it helps listeners or readers retain and recall important residues of the communicative event, if not the event *in toto*. Alexander Bain (1996: 20) emphasizes all of these factors in his psychology of rhetoric, which argues that figures are linguistic units with "a view to a greater effect." Bain identifies three associative modes of intellection and maps them to figurative elements of language. For him, *discrimination* comes from an inborn "Feeling of Difference, Contrast," *similarity* from a "Feeling of Agreement," and *retentiveness* from our ability "to retain successive impressions without confusion, and to bring them up afterwards," a capacity based on a cognitive affinity for contiguity. (Bain 1996: 21). We speak and write figures, Bain says, because we think along these channels, and we respond to figures when we hear or read them because we perceive along these channels; our minds are so structured that we take

---

[76] Cowan distinguishes between *pure STM capacity limit*, which is expressed in controlled identifiable chunks, and *compound STM limit*, when the number of separately held chunks is unclear. Specifically, pure STM capacity limit requires: that specific chunked items must be identified; that steps have been taken to ensure the items cannot be recoded into larger chunks; and that no other mechanisms have been used to affect the memory capacity, such as the use of mnemonic devices. Under these conditions, he reports that the pure short-term memory (STM) capacity limit is 4±1 (88).

aesthetic delight in figures and resonate to them communicatively. Bain is mostly concerned with tropes. For him, our similarity affinity, for instance, responds to the sorts of agreements highlighted by tropes such as simile, metaphor, and synonymia; discrimination to antithesis, paradox, and oxymoron; contiguity to metonymy, metalepsis, and synecdoche. But they are equally harmonious with schemes—similarity with the schemes of parallelism, for instance, like isocolon; discrimination with schemes like antimetabole, in which two word pairs occur in reverse order to each other, and palindrome, in which grapheme sequences are the reverse of each other; and contiguity to the host of schemes in which proximity contributes to salience, especially the schemes of repetition (though, as above, they clearly invoke similarity as well).

Chengyu operate so fully in Bain's cognitive terms that each and every *chengyu* is a kind of four-character Petri dish for the propagation of schemes and tropes. The formal and conceptual patterns of a *chengyu* help individuals retain and recall it, and those patterns in turn can help in the retention of associated cultural events; and, in appropriate contexts, the use of *chengyu*, especially the more difficult or obscure ones, consolidates a bond between the user and the receiver. This can be demonstrated by the tradeoff between the formal (schemic) figurativeness and the conceptual (tropic) figurativeness of an idiom. When mapping the figurativeness of a sample of idioms from their respectively identified origins, we found in a small, informal survey that the more likely a *chengyu* can be used as a trope, the less likely it will have multiple schemic patterns. We picked the first twenty *chengyu* from each source on the Academy of Chinese Studies *chengyu* website. Table 1 shows the number of four-character idioms out of twenty that incorporate tropes and the number of twenty that incorporate schemes (beyond the obvious schemic property of their rigid four-character structure, the attendant ellipses, and the requisite solecism). The count for tropes is based on whether the usage is literal or figural. If the usage is, on balance, literal (as, in English, expressions like "head of cabbage," "Galen flew out of the room," or "I see your point,") we did not count it as a trope.

Tropic and Schemic Dimensions of *Chengyu*				
	Historical Events	Myths and Fables	Common Phrases	Classical Literature
Number that include Schemes	7	10	13	10
Number that include Tropes	20	17	10	8

Table 1. Tropic and Schemic Dimensions of *Chengyu* (based on a sample of 80 *chengyu*, 20 from each source, on the Academy of Chinese Studies website)

There is an inversely proportional relationship between schemes and tropes in these results: as the number of tropes decreases, the number of schemes increases. An example of a non-schemic idiom would be "Mao Sui zi jian"(毛遂自薦), which transliterates as "Mao Sui self nominates," alluding to an episode from a historical war, in which the state, Zhao, was under attack. A man named Mao Sui volunteered to go persuade the leaders of another state to join an alliance with Zhao. The idiom is thus used to describe any person who volunteers him or herself to a task. This *chengyu* is more difficult to retain because, beyond the basic schemic features of all *chengyu,* it does not have other schemic patterns for ease of retention. It works entirely on the basis of historical allusion, as with an English expression like "storming the Bastille" (under the assumption that the meteorological metaphor is, if not dead, wholly eclipsed by the allusion).

In Table 1, an exception from the trope-scheme tradeoff occurs under the category "classical literature". Compared with the rest of the categories, there are both the least number of schemes and the least number of tropes under classical literature. The reason for this is because there are *chengyu* that neither involve tropes nor multiple schemic patterns. For example, "guo yo bu ji" (過猶不及) transliterates to "pass like not enough," which means that both exceeding and falling short of something are essentially the same: they both miss the mark. In this *chengyu*, the only scheme involved is the four-character structure (including the solecism and the requisite ellipses). Moreover, since no characters or events from the sponsoring literature are invoked, it works largely on a literal basis; not even a low-level trope like allusion is necessary for its effective comprehension (similarly to the *chengyu*-like English expression, "waste not, want not," though that one has several schemes to reinforce its retention—alliteration, assonance, ploche, epistrophe). Moreover, the comparison is effectively in-domain, so there is no simile in operation. To know, remember, and reuse these non-schemic, low-trope types of *chengyu* generally requires a higher education level and/or more conscious effort; most of these sorts of *chengyu* are less common and strongly connote erudition. They have a significant ethotic component, something like using Latin and Greek phrases in European languages of the 18th and 19th centuries, when those languages were still taught, but when facility with them correlated with both the level of education reached and the class-structure of the schools. Although there are some cases where *chengyu* from classical literature with neither tropes nor schemes are used commonly, often the users cannot take apart a given one of these *chengyu* to restructure it into a sentence, for reasons such that the characters it uses are archaic, no longer used colloquially, and because the users have no knowledge of the origin of the *chengyu.*

Proper usage of *chengyu* in speech and writing is a sign that the user is well-bred and intelligent and thus it is a way of gauging someone's astuteness and level of education, as well as of asserting your own. In the Aristotelian ethotic

trinity of arete, phronesis, and eunoia (*Rhetoric* 1378ª), *chengyu* directly reflect both arete, in the sense of excellence (of intellect and linguistic facility), and phronesis, in the sense of wisdom (particularly when they are deployed in situations of judgement). Looking at Table 1, we see that *chengyu* which originate from myths and fables or historical events, such as "Mao Sui self nominates," have fewer schemic patterns. This characteristic is probably because the narrative works as a launching pad, and users are more likely to remember it once they have heard the story. Thus, additional schemic patterns are less necessary for such *chengyu* to be used and recalled. Such *chengyu* are effectively epitomized morals, reducing a story or one of its prominent episodes to a crystalline judgment or attitude, of the sort familiar in the west from Aesop's tag lines. On the other hand, *chengyu* that originate from conventionalized common phrases have no such narrative anchors and require more schemic patterns for retention.

The chromatic dimension of chengyu

Idioms, for Nunberg Sag and Wasow (1992), are *informal* and associated exclusively with colloquial registers and oral culture. We regard this as an unfortunately narrow conception, ultimately class-based, that holds formal and professional registers to be somehow purer than the quotidian registers of the street and the locker room, but we will not pursue that argument here. We only want to make the point that *chengyu*, idiomatic in every other respect on Nunberg *et al.*'s criteria, are highly formal in many of their usages. Although oral culture is one of the ways in which *chengyu* propogate, and although they may occur in any linguistic context, *chengyu* prototypically operate at a more-than-informal register; indeed, the very use of most *chengyu* serves to formalize a conversation or a piece of writing, upping the register, while providing credibility to the speaker or writer. In traditional rhetorical terms, *chengyu* concern decorum, the sense in which certain forms of speech, modes of address, structures of appeals, and social relations between rhetor and recipient, shape the rhetorical event. And, for this reason, we argue that *chengyu* are a unique and compelling species of chroma, characteristic of Chinese discourse. To remind: chroma are figures in which the rhetorical balance falls most heavily on the rhetor's intentions. All utterances have an identifiable and isolatable form. All have an identifiable and isolatable meaning. All have an identifiable and isolatable intention. The former two dimensions are staples of semiotics, codified in the modern era most famously by Saussure's terms, *signifiant* and *signifié*, signifier and signified. The third dimension, intention, is most closely associated with ordinary-language philosophy and the study of pragmatics. To take a classic example, one of us might say to the other, "it's too cold in here," which seems like a straightforward, cat-on-the-mat statement about temperature, but if the speaker intends to convey an impression of her discomfort to the other, who is standing near an open window, the *force* of that utterance, in Austin's (1962: 100) terms, is to press the other to close the

window; it functions more or less as a request, above and beyond its role as a statement—not because of its form (it might have been phrased any number of ways), not because of its meaning (all manner of concepts might have been enlisted in service of the same force), but because of the speaker's intention and the hearer's ability to infer that intention.

Decorum reaches in multiple directions. It is in many ways, despite the somewhat effete contemporary connotations of the word, the single most defining notion of discourse—the clear, ineluctable premise that all we say, and every way we hear, depends on context, on where, and with whom, we are engaging in symbolic exchange. Decorum is founded on the welter of social factors that lead into, and away from, all utterances—most critically on the relationship between rhetor and audience: two friends, a doctor and a patient, a professor and a class, a priest and a congregation, and so on. This foundation of decorum, in other words, is profoundly ethic.

Take, for a moment, irony. While it has long been classed as a trope—indeed, one of the so-called four master tropes—it is a chroma *par excellence*, utterly dependent on intention for its operation. The great contemporary theorist of irony, Wayne Booth , as the premier example, speaks of "ironic intention" incessantly, and of the crucial step in "ironic reconstruction" as the recognition "that the author cannot have intended such and such," but must have intended something very different (Booth 1975: 19); the sort of critical question one asks, if ironic interpretation is at stake, for instance, is "does Browning intend ... the contrast between the puritanical attack and the lecherous reality?" (148). Ultimately, it comes down to understanding "the implied author's intention" (146). That is, to the perception of character, to ethos.[77] All chroma have this defining feature, since they are distinguished from schemes, which are defined as a salient weighting on form, and tropes, which are defined as a salient weighting on sense and reference, by their salient weighting on the rhetor's intention. The locus of schemes is the physical signal; the locus of tropes is the semantic system; the locus of chromas is the speaker. *Chengyu* are devices that significantly shape the perception of the speaker, ethos. They are essentially chromatic.

Equally, of course, *chengyu* are essentially schemic as well. Indeed, their ethotic force depends on the rigid four-character, elliptical, solecistic structure. *Chengyu* are unique schemic-chromatic hybrid rhetorical figures.

Semantic chauvinism and the importance of rhetorical form

Chengyu are classic examples of idioms—"a form of expression, grammatical construction, phrase, etc., peculiar to a language; a peculiarity of phraseology approved by the usage of a language, and often having a signification other than

---

[77]   Quintilian also cites "the character of the speaker" as one of the principal determinants in recognizing irony (8.6.54)

its grammatical or logical one" (OED2 1989). As such, they are necessarily ethotic in the communal sense of the term. "Groups of people become distinctive as groups," Edwin Black (1992: 112) has said, not necessarily "by the beliefs they hold, but by the manner in which they hold them and give them expression. Such people do not necessarily share ideas; they share rather stylistic proclivities and the qualities of mental life of which those proclivities are tokens." *Chengyu* are a signature proclivity of the Chinese, intimately enmeshed in their logographic writing system, and because of the strict formal characteristics, of *chengyu*, they are a clearer, more distinctive, signature than the rag-tag grab-bag of idioms of most other languages (and, of course, Chinese has such a bag as well; *chengyu* are not the only idioms in Chinese). Form, indeed, distinguishes *chengyu* from idioms as they tend to be studied in the West. Even in cognitive linguistics, *figure* largely means *trope* in the study of idioms, and only a few tropes at that. Raymond Gibbs's important study of idioms in *Poetics of Mind* (1994: 80), for instance, is chiefly confined to a small handful of tropes ("metaphor, metonymy, irony, and so on,").[78]

As we have seen, however, *chengyu* are highly schemic, in their basic, four-character, elided, solecistic structure, and also in their reliance on other schemes, like ploche, isocolon and tmesis. Subsidiary schemes of this sort, by the way, are also present in English idioms. Even leaving proverbs out of the equation one needn't look very long or hard to find schemes in familiar idiomatic expressions, like *dime a dozen* (alliteration), *give a shit* (assonance), *purely and simply* (homoeoteleuton), and the like; even the redoubtable example, *kick the bucket*, manifests the scheme consonance.

The preoccupation with tropes in the linguistic study of idioms follows from the preoccupation with non-literality in the linguistic study of idioms. Kövecses and Szabó (1996: 326), for instance, define idioms as "linguistic expressions whose overall meaning cannot be predicted from the meaning of the constituent parts," which they repeatedly gloss throughout the paper as "non-literal meaning" (e.g., 334, 335, 345), and Nunberg *et al.* (1992 :491) say that "there are compelling reasons to believe that ... the very phenomenon of idiomaticity is fundamentally semantic in nature" *Chengyu*, however, offer clear counter-data to this semantic/tropic monopoly, not only because of their rigid schemic nature, but because the overall meaning of many *chengyu* might easily be predicted from their constituent meanings, were it not for the compression to four characters. It is ellipsis, and the resulting solecisms— not some tropic twist of the meaning—that reduces the predictability of many *chengyu*'s meanings. Take, for instance, the *chengyu* in Figure 8, which transliterates as "know self know other." The first character *zhe* (知) is commonly paired with

---

[78] Nunberg *et al.* include "figurative" as one of their defining characteristics, but what they mean by the term is wholly semantic/tropic, and even here they have a remarkably shallow conception of figures: "Idioms typically involve metaphors (*take the bull by the horns*), metonymies (*lend a hand*, *count heads*), hyperboles (*not worth the paper it's printed on*), or other kinds of figuration." (1992: 492).

dao (道), to make the term *zhedao* (知道), which means *know*. The second character *ji* (己) is a part of a term that means *self,* and the last character *bi* (彼), means other. This idiom is an adage that advises people to understand themselves and the people around them in order for *something* to happen. While it is possible that this idiom alludes to a piece of literary work that was used to describe strategies to win wars, because most *chengyu* have been passed down for thousands of years and can often be traced back to a classical literary piece, it is impossible to fully verify whether the expression originated from the earliest piece of work in which it is found, or whether it was literal at the time it was formed. Nevertheless, whether a *chengyu* is literal or figurative in meaning, it is, and inescapably so, figurative in form.

Semantic dominance in rhetorical figures is not an exception in Chinese rhetoric and linguistics. In "Rhetorical Analysis of Idioms", the Chinese academic Xu-Hong Xu (2003:20) analysed "the rhetorical ways" of *chengyu*, dedicating each section of his paper to a rhetorical device, which include similes/metaphors, allusions, synecdoche/metonymy, hyperbole, mimic, antithesis, gradation, replacement, and periphrasis. With the slight exception of "mimic," a device similar to onomatopoeia, which Xu identifies as "providing realism by illustrating, or mimicking, the color, sound, and condition…most often done through repetition [of words that sound like the action]" (19), none of his other categories are devoted to formal, or chromatic, rhetorical figures. In fact, in 2005 Li-Wei Niu, in "Cognitive Linguistics in China", found that out of 252 theses that were published in the field of cognitive linguistics, almost half were on "cognition and semantics" (44.67%), and another 13% on "cognition and metaphors." (Niu 2005: 95). The rest of the cognitive linguistic theses were evenly divided among pragmatics, grammar, pedagogy, research review, and theories on the discipline itself.

知　　　己　　　知　　　彼
zhe　　　ji　　　zhe　　　bi
know　　self　　know　　other

Figure 8. Know self know other

Conclusion

We suggested at the outset that *chengyu* provided a particularly rich data set for exploring the three dimensions of language—form, concept, and intention—that figuration manipulates. We argued that schemes are specific rhetorical maneuvers that draw attention towards the form of an expression, that tropes are maneuvers that draw attention toward the denotation, and that chroma, our something-old/something-new category, are maneuvers that do the same for

intention. From that base, we claimed that *chengyu* illustrate all of these maneuvers in a unique and compelling way: that they are fundamentally a hybrid schemic/chromatic idiom which also encapsulates subordinate schemes and tropes. (They may encapsulate subordinate chroma as well; we have not explored this possibility yet.) Along the way, we have made other claims and observations, most directly on the failure of figurative idiom studies to acknowledge the importance of form. The study of *chengyu* provides especially strong arguments that this semantic chauvinism is highly limiting. It is the schemic properties of *chengyu* that generate the immediate rhetorical effects crucial for their function and their propagation. Ultimately, those effects are rooted in verbal and literate conceptions of a distinctively Chinese ethos, and inform a personal participation in that ethos in terms of decorum and cultural capital; that is, *chengyu* are immediately schemic, ultimately chromatic.

Acknowledgements

References

Abram, M.H. (1999). *A Glossary of Literary Terms, 7th Ed.* Orlando, FL: Harcourt Brace College.

Academy of Chinese Studies. (2001). Four-Character Chinese Idiom. *The Brilliant Chinese Civilization.* Retrieved July 18, 2008, from http://hk.chiculture.net/php/frame.php?id=/cnsweb/html/0610.

Arnheim, R. (1954). *Art and Visual Perception.* London: Faber and Faber Limited.

Austin , J. L. (1962). How to do Things with Words. Cambridge: Harvard University Press.

Bain, A. (1996). Figures of Speech. In *English Composition and Rhetoric* (pp. 20-65). New York: Scholars' Facsimiles and Reprints.

Black, E. (1992). *Rhetorical Questions: Studies in Public Discourse.* Chicago: University of Chicago Press.

Bredin, H. (1992). The Literal and the Figurative. *Philosophy* 67 (259), 69-80.

Booth, Wayne. (1975). *A Rhetoric of Irony.* Chicago: University of Chicago Press.

Burke, K. (1950). *A Rhetoric of Motives.* Berkeley, CA: University of California Press.

Cowan, N (2000). The magical number 4 in short-term memory: A reconsideration of mental storage capacity. *Behavioral and Brain Sciences.* 24, 87–185.

Fillmore, C.J., Kay, P. & O'Connor M.C. (1988). Regularity and Idiomaticity in Grammatical Constructions: The Case of Let Alone. *Language.* 64(3), 501-538.

Gibbs, R.W., Jr. (1994). *The Poetics of Mind: Figurative Thought, Language, and Understanding.* Cambridge: Cambridge University Press.

Hardin, E., O'Connell, D. & Kowal, S. (1998). Reading Aloud from Logographic and Alphabetic Texts: Comparisons Between Chinese and German. *Journal of Psycholinguistic Research*. 27(3), 413-420.

Kövecses, Z. & Szabó, P. (1996). Idioms: A view from cognitive semantics. *Applied Linguistics*. 17(3), 326-355.

Loy, G. & Eklundh, J. (2006). Detecting symmetry and symmetric constellations of features. *Lecture Notes in Computer Science*. 3952, 508-521.

Nordiehelm, C.L. (2003). A Levels-Of-Processing Model of Advertising Repetition Effects. In Scott, L.M & Batra, R. (Eds.), *Persuasive Imagery*. Mawah, NJ: Lawrence Erlbaum Associates.

Nunberg, G., Sag, I.A. & Wasow, T. (1994). Idioms. *Language*. 70(3), 491-538.

Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*. 63, 81–97.

Ministry of Education. (2003). Dictionary of Chinese Idioms. Retrieved July 23, 2008 from http://dict.moe.gov.tw/*chengyu*/sort_pho.htm.

Mo, P. or 莫彭龄. (2003). "Four Character Style" and Rhetoric of *Chengyu*. '四字格'与成语修辞. *Journal of Changzhou Institute of Technology*. 16(3), 54-58.

Mo, P. or 莫彭龄. (2007). Cultural Choice of *Chengyu* Rhetoric. 成语修辞的文化选择. *Journal of Pingdingshan University*. 22(6), 92-94.

Müller, W. G. S. (2001). Style. In. Sloane, T.O. (Ed.), *Encyclopedia of Rhetoric (E-reference Edition)*. Oxford: Oxford University Press. Retrieved October 25, 2008, from http://www.oxford-rhetoric.com/entry?entry=t223.e237

Niu, L. (2005). Cognitive Linguistics in China. *Journal of Sichuan International Studies University*. 21(3), 93-96.

Ong, W.J. (1958). *Ramus, Method, and the Decay of Dialogue: From the Art of Discourse to the Art of Reason*. Cambridge, MA: Harvard University Press.

Ong, W.J. (2002). *Orality and Literacy: The Technologizing of the Word*. 2nd ed. New York: Routledge.

OED2 (1989). Idiom. *The Oxford English Dictionary 2nd ed.* (*OED Online*). Oxford University Press. Retrieved April 29, 2009 from http://dictionary.oed.com.

Perfetti, C. A., Bell, L., & Delaney, S. (1988). Automatic phonetic activation in silent word reading: Evidence from backward masking. *Journal of Memory and Language*. 27, 59-70.

Perfetti, C. A., & Zhang, S. (1991). Phonological processes in reading Chinese characters. *Journal of Experimental Psychology: Learning, Memory and Cognition*. 17, 633-643

Pinna B. & Reeves, A. (2008). From perception to art: how vision creates meanings. In Pinna, B. (Ed.), *Art and Perception: Towards a Visual Science of Art Part 2*. Koninklijke Brill NV: Leiden, Netherlands.

Reber, R., & Schwarz, N. (1999). Effects of perceptual fluency on judgments of truth. *Consciousness and cognition*. 8, 338-342.

Schmitt, B. H., Pan, Y. & Tavassoli, N.T. (1994). Language and Consumer Memory: The Impact of Linguistic Differences Between Chinese and English. *Journal of Consumer Research*. 21 (12), 419-431.

Turner, M. (1998). Figures. In Kats, A.N., Cacciari, C. & Turner M (Eds.), *Figurative Language and Thought*. New York: Oxford University Press.

Wagemans, J. (1997). Characteristics and models of human symmetry detection. *Trends in Cognitive Sciences*. 1(9), 346-352.

Winkielman, P., Schwarz, N., Reber, R. & Fazendeiro, T.A. (2003). Cognitive and Affective Consequences of Visual Fluency: When Seeing is Easy on the Mind. In Scott, L.M & Batra, R. (Eds.), *Persuasive Imagery.* Mawah, NJ: Lawrence Erlbaum Associates.

Xu-Hong Xu . (2003.) Rhetorical Analysis of Idioms. *Training and Research Journal of Hubei University of Education*, 20.3, 18-20.