

Cicero's Metaphor Hypotheses Revisited: An Inter-disciplinary Approach to the Aesthetic Appeal of Novel Metaphors

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Abstract—Metaphor permeates almost everywhere, and novel metaphors in particular are supposed to be more aesthetically appealing. Given the lack of a systematic research on the aesthetics of linguistic forms, this paper aims at investigating the factors contributing to novel metaphors' aesthetic appeal. This study takes as a point of departure the great Roman rhetorician Marcus Tullius Cicero's four hypotheses about the contributing factors to metaphor's aesthetic appeal. These hypotheses prove to be reasonable based on our wide-ranging study on the relevant researches of inter-disciplinary interests in such fields as linguistics, psychology, neurology and aesthetics. Vivid images, pleasure in comprehension and meaning inexhaustibility are found to be the three potential contributing factors. Presumably, this inter-disciplinary endeavor will shed light on our investigation into the aesthetics of novel metaphors.

Index Terms—Aesthetic appeal, Cicero's hypotheses, images, novel metaphors, pleasure

I. INTRODUCTION

According to Indurkha [1], there exists a continuum from conventional metaphors, which are so commonly used in everyday communication that they barely seem metaphorical, to novel metaphors that are vibrant and creative. As noted by Gibbs [2], no single theory of metaphor presently available or in the future can account for all of the different kinds of metaphor. He thus recommended that scholars in pursuit of metaphor research recognize that their accounts of metaphor are limited to particular kinds [2]. Given this and the fact that novel metaphors tend to be more aesthetically attractive, we should restrict our attention to metaphors toward the novel end of the continuum. Therefore, novel metaphors shall engage us principally in this study. While the aesthetic quality of novel metaphors has generally been recognized, there is no such consensus as to what contributes to their beauty. Drawing upon the Roman rhetorician Cicero's understanding of the aesthetics of metaphor, we will explore the contributing factors to the aesthetic appeal of novel metaphors from an inter-disciplinary perspective.

II. VIVID IMAGES

Buck [3] cited four hypotheses raised by Cicero as to the reasons why metaphor is aesthetically pleasing. One of the hypotheses is "Because every metaphor...is directed immediately to our senses and principally to the sense of

sight". Based on this hypothesis, we are going to conduct our research from the following two aspects: the existence and vividness of the image

A. Image Existence

Do images appear when we read or hear a novel metaphor? Please compare the following novel metaphors and their literal counterparts:

Example (1):

- (a) The yellow fog that rubs its back upon the window-panes,
The yellow smoke that rubs its muzzle on the window-panes,
Licked its tongue into the corners of the evening,
Lingered upon the pools that stand in drains,
Let fall upon its back the soot that falls from chimneys,
Slipped by the terrace, made a sudden leap,
And seeing that it was a soft October night,
Curled once about the house and fell asleep.
(T.S. Eliot: *The Love Song of J. Alfred Prufrock*)
- (b) The yellow fog descends and permeates everywhere on an October night. It falls upon the pools, the window-panes, and the terrace. It also circles around the house [4].

Analysis: While reading (a), we are experiencing a sense of liveliness, which, however, is lost in its literal counterpart (b). Where does the sense of liveliness lie? Most likely, it lies in the image that the metaphor evokes. The novel metaphor "fog is a cat", which is presupposed by (a), is apt to enable us to "see" a cat rubbing its back and muzzle upon the window-panes, licking its tongue into the corners, lingering around the pools, and slipping by the terrace. This is one particular feature which Aristotle attributes to metaphor: metaphor "sets the scene before our eyes" [5].

Moreover, this subjective feeling is not without empirical support from psychological experiments. The experiment carried out by Verbrugge [6] suggests that images do appear while we are reading a metaphor. The subjects in the experiment were asked to write down a description of the kinds of experiences they had upon reading a metaphor. They were allowed four minutes to write a verbal description of what came to their minds. Each subject was given a total of ten metaphors. As what Verbrugge intended to find via the experiment went beyond our present concern and the design of his investigation was somewhat complicated, we would only introduce the part of our particular concern here. Let us now look into some typical reader responses to the three metaphors out of those ten.

Example (2): *Strawwrappers are snakeskins*

Reader response: I see someone tearing off the end of a

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strawwrapper and a little green snake jumps out.

Example (3): *Giraffes are skyscrapers*

Reader response: I see a giraffe with a body like a building, running out of a jungle, telling people how he's earthquake proof.

Example (4): *Leaves are fingers*

Reader response: I see a tree with thousands of fingers growing as leaves. They move and wave when the wind blows them. Birds fly into the tree and the fingers grab them, but they soon let them go. At night the fingers curl up into fists. Occasionally they "cup" together to hold bird nests [6].

What the subjects wrote down typically begins with "I see", showing that images truly occur as part of their experiences upon reading metaphors.

Another experiment chosen from a series of experiments collaboratively conducted by Harris and Lahey *et al.* [7] also supports our view. It involved a word-counting task in which novel metaphors, conventional metaphors and nonmetaphors were used. The final result showed that the mean number of errors in counting was 9.0, 7.8, and 7.4, out of a possible 16, for novel, conventional and nonmetaphors, respectively [7]. Evidently, it was more difficult to accurately count the number of words in novel metaphors. The greater number of counting errors for novel metaphors is assumed to be ascribed to the high degree of vividness. As the experimenters put it, novel metaphors were vivid and striking, while the other kinds were ordinary and unexciting. Hearing novel metaphors was thus more distracting and tended to interfere with the low-level processing required in word-counting [7]. Additionally, correlations between the number of errors in counting and the number of reported images were also found [7]. It can therefore be assumed that the high degree of interference in word counting stems from the images that novel metaphors are capable of calling forth. That images occur even under the adverse condition of counting words obliquely reveals that images do occur under normal circumstances.

Admittedly, whenever we make a generalization, there is a "leap in the dark". Thus, it is safer and more proper for us to arrive at such a conclusion as "novel metaphors stand a greater chance of possessing the image-evoking quality than their literal counterparts."

B. Image Vividness

Obviously, the above-mentioned image-evoking quality of the novel metaphor (a) "fog is a cat" is conducive to its vividness; while the literal counterpart (b) is merely a plain description with the vividness inevitably lost.

Images evoked by novel metaphors are vivid due not only to their pictorial concreteness but also to their dynamic and creative features. Here we touch the issue of the nature of the image produced by a metaphor. A pilot study of the nature of metaphor imagery was conducted again by Harris and Lahey *et al.* [7]. The subjects in the experiment were asked to describe, in either pictures or words, the images they constructed for different metaphors. While examining the images reported, one cannot help but be struck by their creativity. For example,

Example (5): *The strip miners tortured West Virginia*

One subject pictured the metaphor "by having an outline of

the state of West Virginia strung up on two poles with a man wearing a miner's cap lashing a whip at the stung-up map" [7]. What the subject pictures could not literally take place in our real life, but the constructed image is especially vivid in terms of its creative liveliness rather than its similitude to life.

The creative, and even fanciful, surrealistic fusion of metaphor imagery borne out by this experiment also finds support from the experiment by Verbrugge [6], which can be seen in the above Examples (2)–(4). From the typical reader responses, we can conclude that the images are aroused via a creative and fanciful fusion of the tenor "strawwrappers" and the vehicle "snakeskins" for the metaphor (1), the tenor "giraffes" and the vehicle "skyscrapers" for (2), and the tenor "leaves" and the vehicle "fingers" for (3). This idea of fusion reminds me of "double image" proposed by Shu [8]. According to Shu [8], the images of tenor and vehicle collaboratively constitute what he called "double image", generating a special imagic effect of metaphor. In his paper, Shu [9] further developed this point, arguing that "double image" conduced fundamentally to the vividness and beauty of metaphor. In this connection, the fusion of metaphor imagery we focus on also bears on the vividness property.

Kusumi [10] also found imageability to be a primary factor influencing metaphor's quality. Arnheim [11], Kusumi [10], and Mcquire *et al.* [12] found that metaphors with high imageability to be the most enjoyable. Yang *et al.* [13] emphasized imageability could increase vitally the perception of aesthetic attractiveness of metaphor. Ding [14] emphasized that novelty and image concreteness were generally considered to be an essential part of our aesthetic experience, which intensifies the validity of our judgment that the image vividness of novel metaphors is one of the important factors of the aesthetic appeal.

III. PLEASURE GENERATED IN METAPHOR COMPREHENSION

Among the four hypotheses about the sources of metaphor's aesthetic attractiveness concluded by Cicero, the other two of them are "Because it is some manifestation of wit to jump over such expressions as lie before you, and catch at others from a greater distance." and "Because he who listens is led another way in thought and yet does not wander from the subject" [3]. These two hypotheses, as we consider, touch the process of metaphor comprehension. In what follows, we will conduct our investigation by mainly looking at how pleasure is generated in the process of comprehension.

To answer this question, we need to study what takes place in the mind of the person who receives a novel metaphor. Our predecessor Richards [15] gave some thought to this question by considering closely what happened in the mind when people put together two things belonging to very different orders of experience in a sudden and striking fashion. He found the most important happenings were the mind's efforts to connect them in addition to a general confused reverberation and strain. "The mind is a connecting organ; it works only by connecting and it can connect any two things in an indefinitely large number of different ways". To see the validity of this statement, let us now turn to the following examples:

Example (6): *All their green-haired waters*
(Thomas Henry Kendall: *The Voyage of Telegonus*)

Analysis: On reading the metaphor, in our mind we tend first to have the image of “hair”. But no sooner has this darted into our consciousness than it is opposed by another image, the image of “grass” which the word “green” evokes. Our mind vibrates from one image to another, unable to rest in either or to resolve the two into one. This dissonance, however, is not for long. These two conflicting images join in a vague sensation of some fine long threads, thence differentiated into the hair and the green grass, and unified once more in the explicit perception of the hair and grass [3].

Example (7):

I drove West
in the season between seasons.
I left behind suburban gardens.
Lawnmowers. Small talk.

Under low skies, past splashes of coltsfoot,

I assumed
the hard shyness of Atlantic light
and the superstitious aura of hawthorn.

All I wanted then was to fill my arms with
sharp flowers,
to seem, from a distance, *to be a part of*
that ivory, downhill rush. But I knew, ...

I had always known,
the custom was
not to touch hawthorn.
Not to bring it indoors for the sake of

the luck
such constraints would forfeit—
a child might die, perhaps, or...

So I left it

stirring on those hills

with a fluency only
water has.

(Eavan Boland: *White Hawthorn in the West of Ireland*)

Analysis: “This beautiful poem by Boland [16] is filled with creative and vibrant metaphors, as indicated by the italicized lines. What is implied in these lines is one dominant and consistent metaphor, namely “wild flowers are water”. In the phrases “splashes of coltsfoot (a plant bearing yellow flowers)”, “downhill rush” and “stirring on those hills”, the words “splashes”, “rush” and “stir” are commonly associated with water or liquid. But in this poem, the poet connects these words with the flowers—the blossoms of coltsfoot and hawthorn. On reading these lines, we are apt to be struck by the juxtaposition of these two incongruous images, water and flower. Soon they unite in an obscure vision of something flowing and vibrating on the hills, this view becoming divided again into the separate images and then unified in a more definite perception of the flowers quivering and fluttering in the breeze in a flowing and fluid manner”.

We can derive from the analyses above that there is a strain in the mind of the reader/hearer due to the two irreconcilable

images evoked by that novel metaphor, and then this mental tension is eliminated by virtue of the resultant unified image. As Buck [3] put it, “It (metaphor comprehension) consists of a sudden tension in the mind between the two incompatible images introduced, a resolution of that tension in the perception of the single impression or sensation... the subsequent division of the original impression and its return to a distinct unity”.

Then how does our understanding of what takes place in the mind of the reader/hearer bear on the crucial question as to how pleasure is generated during the process of metaphor comprehension? According to Buck [3], what the mind undergoes agrees with a fundamental aesthetic principle—that of unity in variety. Metaphor provides pleasure for the reader/hearer by stimulating him/her to see a unity in apparent diversity. As noted above, the mind is stimulated to seek a unified image for the discordant variety of images aroused by the metaphor. The successful perception of the unity therefore gives pleasure to the reader/hearer.

Metaphor induces not only mental tension but physical tension as well. On the view of Buck [3], the sudden tension brought about by the conflicting images produces physically a sudden catching of the breath, and a sense as if the lungs were being forced wide apart. “The breath cannot be released until the unity has been reached. Then, with a sigh or a laugh, it is let go, the lungs fall together and one feels the pleasure that always accompanies a lifting tension, if it has not been unduly prolonged”.

Additionally, the empirical evidence for the existence of the tension and of the pleasure as a result of the release of tension was also adduced by Buck. In the psychology laboratory at the University of Michigan, Buck [3] read metaphors selected on purpose to several hundred students. In the process, Buck noticed the grave and expectant look on the face of the individuals while the first words were being read, break into a smile or even a sub-vocal laugh, when the unity of the two images dawned on them. Further, this physical experience also drew Dr. Dewey’s attention. To quote him, “all expectancy, waiting, suspended effort, etc., is accompanied... with taking in and holding a full breath, and the maintenance of the whole system in a state of considerable tension. Now let the end suddenly ‘break,’ ‘dawn,’ let one see the ‘point’, and the energy discharges. This sudden relaxation of strain, so far as occurring through the medium of the breathing and vocal apparatus is laughter” [3]. That metaphor renders pleasure to the reader/hearer as a result of relief also acts in accordance with Marshall’s principle by Marshall Henry in the realm of psychology and aesthetics that the outlet of energy repressed for a limited time is pleasure [3].

In brief, novel metaphors afford pleasure to the reader/hearer, because what the mind and the body experience accords with the fundamental aesthetic principle—unity-in-variety principle and another aesthetic principle—Marshall’s principle that relief from physical tension induces pleasure. Hence, the pleasure generated during comprehension process is found to be yet another source of novel metaphors’ aesthetic attractiveness.

Moreover, Reinsch [17] also discovered that the readers’ initial identification of the anomaly could lead to tension. The

resolution of the tension during the process of metaphor comprehension might produce 'pleasure' or 'relief' [18].

IV. MEANING INEXHAUSTIBILITY

The last of Cicero's hypotheses is "Because a subject and entire comparison is dispatched in a single word" [3]. This hypothesis, as I interpret it, concerns the pleasure resulting from a surprising contrast in metaphor between the compactness in form and the inexhaustibility in content. For Example (8):

大自然本身永远是一个疗养院。它即使不能治愈别的疾病，但至少能治愈人类的自大狂症。人类应被安置于适当的尺寸中，并须永远被安置在大自然做背景的地位上，这就是中国山水画中人物总被画得极渺小的理由。林语堂《生活的艺术》

What is worth mentioning concerning Example (8) is that the essential metaphor is "大自然是一个疗养院". As this example illustrates, we can never exhaust what metaphors convey to us, and sometimes we can hardly pin down what metaphors actually mean to us. The very feature of inexhaustibility and indeterminacy is what Sperber and Wilson label "poetic effect", with their explanation in the following words — "The surprise or beauty of a successful metaphor lies in this condensation, in the fact that a single expression which has itself been loosely used will determine a very wide range of acceptable weak implicatures" [19].

Stringaris *et al.* [20] used an Event-Related Functional Magnetic Resonance Imaging (ER-fMRI) to investigate the neural mechanism in processing metaphor. They discovered the left thalamus was specifically activated in deriving meaning from metaphoric sentences. They assigned this to the open-endedness of meaning interpretation of metaphor. This open-endedness, also understood as meaning inexhaustibility and indeterminacy in our context, is well represented in novel metaphors. In other words, their investigation in neurolinguistics presents some neural basis for the aesthetics of novel metaphors.

V. CONCLUSION

Based on Cicero's four hypotheses about the potential contributing factors to metaphor's aesthetic appeal, vivid images, pleasure in comprehension and meaning inexhaustibility prove to be three potential factors by resorting to researches in different fields such as linguistics, psychology, neurology and aesthetics. In the future, an inter-disciplinary endeavor in both neurology and aesthetics, known as neuroaesthetics, will possibly illuminate our understanding of the contributing factors and help us discover the neural mechanism of the aesthetics of novel metaphors. A deeper understanding of the aesthetic appeal of novel metaphors from this inter-disciplinary perspective will,

in turn, promote researches in such relevant disciplines as psychology and aesthetics.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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