## Beneath the Paint: A Visual Journey through Conceptual Metaphor Violation

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**Abstract.** Metaphors are an undeniable part of many forms of art and they hint at the underlying conceptualisation that takes place in the silent conversation between an art piece and its perceiver. Abstract art, in particular, requires the viewer not only to analyse the colour palette and the shapes of the strokes but to subconsciously react to the underlying structures that often define the metaphors. After introducing a few cognitive theories involved in perception and knowledge transfer the paper introduces the reader to the painting "Beneath the Paint". It is an abstract acrylic painting that plays on the two conceptual metaphor structures 'UP is GOOD' and 'DARK is BAD' and by presenting them in contradiction force the viewer to subconsciously choose its primary conceptualisation.

Keywords. Art, metaphor, pattern recognition, image schema

Human expression in music, literature and the arts often rely on the audience to fill in the blanks. The abstraction of music encourages the listener to allow tones and melodies to 'speak' to the audience. Writers use for instance metaphors, hyperbole and synecdoche to force the reader to absorb more information than what the words and expressions contain themselves. In the arts, in particular during and the time after the impressionistic era, expression took the character of unconventional and liberal use of colour, shape and even the subject itself was suddenly up for interpretation. Art was no longer a method to capture a scene, or to tell a narrative, but to more strongly impose the viewer with an impression.

Looking at these phenomena from a scientific point of view it has been made clear that the human brain is a skilled interpreter, that both searches and finds patterns in any situation, even where patterns are non-existent, a phenomena called apophenia. This imaginative 'hide and seek' game of pattern recognition has been suggested not only to manifest in visual interpretations such as that in the arts but also to translate into higher levels of cognition [13].

Pattern recognition connects the perceived external world with internal mental constructs so as to generate order in chaos. Gestalt psychology [7] points out that there exist certain cognitive laws by which visual information are interpreted. For example, objects moving in the same direction are interpreted as a group, likewise, 'broken' objects are interpreted as a whole. In Figure 1 a classic example of the gestalt principles is demon-

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strated. Despite there being no complete triangle in the picture the mind fills in the gaps and connects the fragmented parts to perceive a triangle.



Figure 1. Gestalt laws ensure that the viewer perceives a white triangle, despite no such figure existing.

While gestalt laws point out how visual information may be 'completed' in uncertain scenarios, how symbols (such as words, figures, paintings etc.) gain their meaning and can refer to a real-world concept is still a topic for debate. Sticking to the shape of triangles, in linguistics, this problem is often discussed in association to the semiotic triangle [15], illustrated in Figure 2. The corners of the triangle capture each one of the three components of any concept. However, how the connections between these corners manifest remains one of the fundamental problems in cognitive sciences.

In fact, while there are theories as to how human cognition forms and allows for conceptualisation, there exists no consensus on the view of cognition. Throughout the last century, the development of (modern) psychology research advanced the investigations on human cognition from the purely speculative in philosophy and theology, to more empirically founded theories. The perception of the human mind went through many paradigm shifts and several different theories as to how the components of concepts relate to each other were introduced [3]. The early view of cognition, that grew alongside the birth of what we today would call modern-day computers, was called Computationalism and built on the idea that 'thinking is computing'. Today the view has few completely devoted followers as it appears that the human mind is far too complex and irrational to satisfy the logical realm defined by computationalism. Instead, as cognitive psychology and neuroscience started to unfold the complexities of not only behaviour but also how the brain functions, the view of cognition shifted towards more embodied views of cognitive development and concept formation [11,16,12]. Neurolinguistic studies started to demonstrate how linguistic concepts and expressions were tied to sensorimotor cortices [18,2].

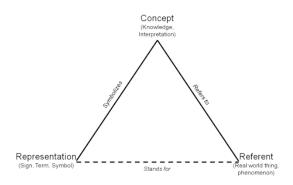


Figure 2. The semiotic triangle.

While embodied cognition is an umbrella term of different levels of devotion to the hypothesis, the general idea is that all human cognition can be traced, through the brain, back to the sensorimotor experiences. The *concept* (as denoted in the semiotic triangle) is the collected experiences that an individual has with the real world *referent*. The *representation* is the way in which this mental construct is communicated and remembered. For example, I could write the word 'banana' on a piece of paper to capture the meaning of it. However, in my mind, the 'meaning' of a banana is most likely the gathered attributes from my experiences with them, such as its particular visual appearance, its scent or its taste. All of which are increasingly difficult to represent and is therefore translated into symbols such as 'banana' that we can use to communicate with. For increasingly complicated concepts such as 'finance' or 'marriage', our experiences are less structured based on the concrete physical experiences. Despite this we often use spatial language to express increasingly abstract concepts<sup>2</sup>.

Indeed, one of the major reasons for the emergence of the modern view of embodied cognition was to provide means to explain why it is that human language to such a large degree is rooted in spatial language [10]. Many metaphors rely on spatial or embodied experiences such as: 'I am at a crossroad in my life', 'he is on the rise to power' and 'their marriage is falling apart'. Underlying these sentences are conceptual skeletons that can be traced back to the sensorimotor experiences acquired in early infancy. One such theory of conceptual skeletons is the theory of image schemas [9,6]. The image schemas are spatiotemporal relationships that have been suggested to be conceptual building blocks upon which metaphors and novel conceptual domains [5] can be built as well as event conceptualisations [14,1,17]. This means that image schemas play the role of the 'invisible' part in many metaphors. In particular, in more abstract domains, image schemas can be the crucial information transfer that the metaphor makes [8].

While image schemas are relationships such as VERTICALITY, SCALE and SOURCE\_PATH\_GOAL, these skeletons can be fleshed out to metaphoric structures such as: "UP is GOOD/DOWN is BAD", 'BIG is STRONG' and 'PROGRESS is MOVE-MENT FORWARD' [8]. In natural language, these kinds of statements are not usually directly used. Instead, it is a three level hierarchy in which the embodied experience transforms itself into human language and interpretation, see Figure 3. For instance, in the metaphor "*She's so high, high above me, she's so lovely*" made famous by Tal Bachman in the late 90's, clearly, denotes that she is 'out of reach' and that the singer will never be on 'her level'. All these metaphors point the reader to the metaphor that UP is GOOD, which in turn builds on the image schema VERTICALITY.

Another common metaphor is 'LIGHT is GOOD/DARK is BAD' which is highly grounded in the visual domain of embodied experience. As in the words by The Rolling Stones where the world is to be painted black to match the colour of the heart: "*I see a line of cars and they're all painted black, With flowers and my love, both never to come back*". In terms of image schematic conceptual structures, in the literature there currently exists no direct mapping to dark and light, and SCALE is the most appropriate connection to make.

It has been argued that human interpretation and conceptualisation of metaphors both in linguistics and in the arts are unconsciously processed on these kinds of conceptual structures and skeletons. What then happens if there is a violation of metaphoric structure?

<sup>&</sup>lt;sup>2</sup>See [4] for a breakdown of abstract financial language into image schematic PATH-following.

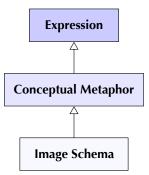


Figure 3. The three levels of the conceptual structure in image schematic conceptual metaphors.

Figure 4 depicts "Beneath the paint", an abstract painting. The painting embodies both the VERTICALITY image schema with long coloured strokes, and therefore allowing for the interpretation of the metaphor 'UP is GOOD/DOWN is BAD', while simultaneously capturing scaling from dark to light associated with the metaphor 'LIGHT is GOOD/DARK is BAD'. As both metaphors have the structure 'X is GOOD/Y is BAD' a conflict emerges as the painting forces the viewer to merge UP with DARK and DOWN with LIGHT. In consequence, UP becomes BAD and DARK becomes GOOD, and DOWN becomes GOOD and LIGHT becomes BAD.

In language, these kinds of conflicts are often unconventional and provocative. In real life scenarios, these metaphors often rely on a temporal change. For instance, a sunrise is a perfect example of LIGHT going UP and a sunset of LIGHT go DOWN. Whether or not one could transfer this analysis to claim that a sunrise holds more conceptual 'positive tone' than a sunset is, of course, a completely different matter. In order to learn more about the extent of how conceptual metaphors such as those present in "Beneath the paint", are incorporated into human conceptualisation requires further studies. Regardless, using this kind of conceptual metaphor violation provides an interesting addition to different artistic areas to force the viewer to unconscious and unintuitive interpretations that range out from the conventional sphere.



Figure 4. Beneath the paint

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