

Seeing as:

*Metaphors and images in individual and popular consciousness and imagination*¹

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Introduction

Metaphor is as ultimate as speech itself, and speech as ultimate as thought. ... Metaphor appears as the instinctive and necessary act of the mind exploring reality and ordering experience. (Murry, 1931: 1-2)

You need an "as if" to look at the world; you need an "as if" to explain the world. (Rom Harré)

Ivor Armstrong Richards, the author of the famous *Philosophy of Rhetoric*, wrote in 1936:

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. Which of these ways it chooses is settled by reference to some larger whole or aim, and,

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though we may not discover its aim, the mind is never aimless. (Richards, 1936: 125)

While it is true to say that the mind is a connecting organ, one should not forget that we, as humans are also connecting people. I want to argue in this article that only by connecting *as* people can the mind really work as a connecting organ. Metaphor and to a lesser degree metonymy, are two major cognitive mechanisms by which the mind operates as a connecting organ, but they are also social connectors. A good metaphor reaches parts of the brain that other cognitive mechanisms cannot reach, but it also reaches out to other minds in ways that other cognitive devices cannot. Good metaphors expand the mind, fire up the imagination and help to create, as some surmise, consciousness of oneself and of others. Metaphors create cognitive and possibly neurological bonds between conceptual or mental domains, but they also create social bonds, as least of an ephemeral type (see Nerlich & Clarke, 2001).

For Samuel Taylor Coleridge, the famous 19th-century English poet, about whom Richards had published an in-depth study in 1934 (Richards, 1934), “imagination is the link between man and the world”. Colridges’ influential views on the imagination, a highlight of the romantic era, are still quoted today (see Reid, 2001), but again I would add: imagination also links man and man, women and women, man and women and this especially through the use of metaphor and images.

I agree with James Horton Cooley, an American sociologist of an early social interactionist persuasion, who wrote in 1902 that the imaginations that people have of one another are the solid facts of society. He maintained that one’s consciousness is a reflection of what we think others think of us. Others exist in our imagination as we exist and influence others in their imagination. One of Cooley’s favourite statements was that sociologists have to “imagine imaginations” (see Cooley 1918: 410-422). I will do a bit of that in this article.

Another early philosopher of language and society, Voloshinov wrote:

Signs emerge, after all, only in the process of interaction between one individual consciousness and another. And the individual consciousness itself is filled with signs. Consciousness becomes consciousness only once it has been filled with ideological (semiotic) content, consequently, only in the process of social interaction. (Voloshinov 1986[1929]: 11)

One can claim that imagination lies at a kind of crux where perception, memory, idea generation, emotion, metaphor and social interaction intersect and interact. And as *imagination* once did much of the conceptual work that *consciousness* does now, understanding imagination may be the key to understanding consciousness.

In this article I want to explore both the individual-cognitive-neurological and the social-interactive dimensions of metaphor and imagination (and so by implication, consciousness). I want to study points of convergence between three fields of contemporary research: figurative language, imagination and consciousness, by focusing on two questions:

- What work do metaphor (and metonymy) do in individual consciousness?
- What work do metaphor (and metonymy) do in what one can call more controversially collective or popular consciousness or popular imagination?

This talk has therefore two parts – one that focuses on the individual, cognitive-neurological level of consciousness and the imagination and one that focuses on the social, sociological-cultural level. In both instances I obviously cannot explore all the issues, but I want to take advantage of various ‘windows’ onto the mind and society which have recently opened up. Research into synaesthesia and autism might provide us with windows on metaphor and the individual mind; the study of metaphor in discourses about contentious social issues, such as cloning, might be a window onto how metaphors works at the level of society and of cultural or popular imagination.

This article is unashamedly speculative, but it has its roots in some recent and some less recent research and speculations. The topic of how figurative language shapes and is shaped by mental processes and social interaction has become a central topic of investigation in cognitive linguistics and cognitive science. In 1980 Lakoff and Johnson claimed that metaphor and metonymy are a part of everyday speech that affects the ways in which we perceive, think, and act (Lakoff and Johnson, 1980). This sparked off on-going research into metaphorical reasoning, conceptual integration, mapping across conceptual domains, mental spaces, and the nature of consciousness. A few years earlier, in 1976, Julian Jaynes (1976) had claimed, very controversially, that language not only affords us the capacity to make metaphors, but that language generates consciousness via metaphor (in a similar vein, see Bronowski, 1974).

It seems that when we perceive something *as* something or understand something *as* something else we extend our understanding of the world and expand, indeed, create, consciousness. One could say that if, as according to Lakoff, KNOWING IS SEEING, *SEEING AS IS CONSCIOUSNESS*.

What is the basis of the widespread *KNOWING IS SEEING* metaphor, as in expressions like: I see what you are saying. His answer was clear. This paragraph is murky. He was so blinded by ambition that he never noticed his limitations. The experiential basis, in this case, is the fact that most of what we know comes through vision, and that in the overwhelming majority of cases, if we see something, then we know it is true. (Lakoff <http://www.ac.wvu.edu/~market/semiotic/met12.html>)

Some go as far as to say that “Metaphor and other analogical tropes, when they compare aptly, create new synapses in the mind and new relations between language, thought, and reality.” (Friedrich, 1991: 53)

Although controversial, Jaynes’ and other older and newer speculations about

metaphor and consciousness have some overlaps with those developed by Lakoff, Johnson and others. Their ideas in turn have been integrated into some more recent research into consciousness and the imagination carried out by neuropsychologists such as Edelman and Tonini (Edelman, 1992; Edelman and Tonini, 2000), Damasio (1994, 2000) and Ramachandran (see below), as well as into research done by cognitive archaeologists, such as Steven Mithen (http://www.science-spirit.org/articles/ArticleDetail.cfm?article_ID=204).

Individual consciousness, imagination and metaphor

All cognition is the perception of one thing through another. (Vaihinger, 1924[1870]: 29).

Ramachandran has recently claimed that the study of synaesthesia, where there is a mixing of senses causing the person to experience such things as coloured hearing, gustatory sights, and auditory smells, could provide "a window into human nature" and give insights into, for example, the human minds' penchant to create metaphor (see Ramachandran & Hubbard, 2001). He maintains that scientists have often dismissed synaesthesia, saying "Oh, these artists are just speaking metaphorically". In his view they fall victim to the scientific fallacy of answering one mystery of human behaviour with another, namely: "What does it mean to speak metaphorically?" In his view, the study of synaesthesia may help us to unravel this mystery since, among synaesthetes' heterogeneous neural patterns, is one showing heightened activity in the angular gyrus, a brain area that plays a key role in the production of metaphor (the understanding of metaphor is another, altogether different mystery). What is this role of the angular gyrus (a brain structure, located in the left temporal lobe of the brain that maintains connections to areas involved with speech comprehension and the integration of letters with their corresponding sounds)?

According to Ramachandran:

In addition to its role in abstract numerical cognition, the angular gyrus has long been known to be concerned with cross-modal association (which would be consistent with its strategic location at the crossroads between three temporal, parietal and occipital lobes). Intriguingly, patients with lesions here tend to be literal minded (Gardner, 1975), which we would interpret as a difficulty with metaphor.

I shall come back to this shortly when discussing autism.

Our idea that excess cross-wiring might explain the penchant for metaphors among artists and poets is also consistent with data suggesting that there may be a larger number of cross connections in specific regions of the right hemisphere [...], and the observed role of the right hemisphere in processing non-literal aspects of language [...]. (Ramachandran & Hubbard, 2001: 18)

This argument does not address the important question of why almost anyone can *understand* a metaphor once it is spelled out, but only a given few (the ones with more cross-wired brains in our scheme) can be creative in generating them. Why is such excess cross-wiring needed only for producing metaphors but not for recognizing them? (p. 18, footnote 10)

One should stress ALMOST anyone, but there are a few people, especially in the autistic spectrum who do not understand metaphor so easily. The question one might want to ask is whether this inability is due to damage to the right hemisphere or to what one could call in opposition to the hyperconnectivity observed in poets, hypoconnectivity, or a lowered activity in the angular gyrus. I'll leave this to the neuroscientists...and turn, very speculatively, to autism.

The Nottingham philosopher Gregory Currie (1995a,b,c) has speculated about the existence of what he calls an 'imagination system' similar to the visual system, which, just as the latter, could be susceptible to damage, leaving intact other areas of mental functioning.

[I]t is a widely if not universally acknowledged conclusion that the so-called "high functioning " autistic group display an extreme version of what we are in normal contexts inclined to call "lack of imagination": their interests are primarily and sometimes obsessively mechanical, they are insistent on environmental sameness and adherence to routine, and while their understanding of causal and mechanical processes is often sound, they have great trouble, even at an elementary level, with understanding the motivations, the beliefs and the desires of other people. Very significantly from my point of view, they typically lack an interest in fictional narrative, and one of the earliest indicators of autism is a child's lack of interest in pretend play.

http://www.uqtr.quebec.ca/AE/vol_1/currie.html]

It is still not clear what causes autism, but we know that children with autism lack what comes naturally to other children: to pretend-play, to enjoy reading fiction, to simulate other worlds in interaction with others and to understand their real or imaginary intentions and utterances. The study of autism could therefore become yet another window onto a type of mind, imagination and consciousness that lacks the ability to deal successfully with figurative language.

Autism, as suggested by some researchers, may be a right hemisphere dysfunction "as the right hemisphere processes information holistically and is associated with imagination and spatial perception. This hemisphere provides an overview of our environment and the objects that surround us. It is better at understanding humor, emotion and metaphor. It can 'see' the overall, background picture." http://www.geocities.com/player2000gi/hemispheric_specialization.htm

Autistic people typically find it difficult to understand humor, emotion, metaphor and seeing the whole picture, what Happé and others have called 'weak central coherence' (Happé, 1993). This failure to see the whole instead of the parts might inhibit what is essential to metaphor, namely seeing something *as* something else or seeing *somebody* as somebody else or to see another communicative intention behind the literally conveyed meaning. It might also inhibit appreciating the multiplicity of meanings, as in ambiguous utterances or jokes, or to pick out one, relevant meaning, from an array of possible meanings.

Marc Sabbagh has recently pointed out in an article on autism that knowledge of communicative intentions "provides individuals with a basis for constraining polysemy [or the array of possible meanings] in order to reliably arrive at an appropriate meaning of an utterance" (Sabbagh, 1999:45). This ability to constrain polysemy on the basis of contextual cues is exactly what autistic people seem to lack. They also lack the ability to cope with fairly standardised indirect speech acts.

Here are two typical examples taken from parents' reports about the linguistic behaviour of children, one autistic, one with Asperger's syndrome (an autistic spectrum disorder, but unlike children with classic autism, these children have fewer learning difficulties and have less problems with language):

Well-educated people tend to say things like 'Do you think it would be a good idea to put the kettle on?'. Giles couldn't get the message from me that I was talking about having a drink. I had to say 'We are going to have a cup of tea'. I slowly learnt that he needed to know in the simplest terms that the next thing to happen was a drink. (Sampson, 2000:12)

Taking statements literally is usual -- a person with Asperger's syndrome might well feel confused by a comment such as "if I eat any more I'll burst," or "time to stretch your legs". (Dooley, 2000:10)

Autistic people seem to have a general difficulty in dealing with ‘incongruity’, from creative incongruity as displayed in the use of figurative language and certain types of humour up to fairly conventionalised types of incongruity, that is, speech acts which once might have been incongruous, but now have been conventionalised. Examples are: “What are you up to?”, “Can you pass the salt?”, “You have the devil in you”, and “Why are you crying your eyes out?”. These are all utterances that certain autistic spectrum children find difficult to understand and which might even send them into states of intense anxiety (see Welford, 1999:8)

Autistic adults also feel this loss of ‘contextual and figurative competence’ quite acutely. The following quote from a poem highlights the autistic’s social and conversational difficulties.

I talk to people;
But not with them.
I see people meandering to and fro;
But I am not a part of them.

(<http://members.aol.com/autismfg/apfng.html>)

If the mind is a connecting organ, as Richards said, and if, as I argued at the beginning of this article, we are connecting people, then autism seems to severely hamper both these essential cognitive and social activities.

There is still another group of people, apart from autistic individuals, who find it difficult to deal with indirect speech acts, humour, metaphor and so on. These are individuals with right-hemisphere damage. It has been known for at least thirty years, that is, since Gardner and Winner and their associates began to study the neurological basis of metaphor understanding, that right-hemisphere damage leads to an impairment in extracting meaning from context, especially when word-meaning and context are in conflict (see Winner & Gardner, 1977).

In the following figure I have provided an overview of the various types of impairments in the three clinical groups who all show deficiencies in what one can call metaphorical or imaginative competence (gleaned from many articles on these topics).

Figure 1 about here

The questions that neuropsychologists might want to address are: Is the right hemisphere involved in constructing coherence of items in context? Is the right hemisphere involved in social understanding? Are these two issues linked? Does autism involve a damage to the right hemisphere? What implication has this for imagination and consciousness? Cognitive linguists might want to find answers to questions such as: What is the role of metaphor (based largely on the *connection* and *integration* of semantic and conceptual knowledge from different spheres of experience) in language and what does an inability to deal with metaphor show us about language and its relations to other perceptual, cognitive and social ‘faculties’?

Social imagination and metaphor

The dissemination of genetic knowledge is not uniquely contingent on the advancement of science and technology, but is equally dependent on the development of images and imaginations. ‘Imaginary tools’ are crucial assets in the dissemination of genetic knowledge, as they are used to shape this science’s public face. (Van Dijck, 1998: 2-3)

We have seen that some researchers attribute the problem experienced by people with autistic spectrum disorders to a breakdown in imagination and a breakdown in social

understanding (more commonly called in this context 'theory of mind'). Both seem to be intimately linked, as imagination is crucial for anticipating, evaluating or imagining the consequences of one's own and other's behaviour, for anticipating and evaluating risk (see Damasio, 1999). A breakdown in 'imagination', as seen in autism, has therefore not only the effect that autistic children find it difficult to understand jokes, it also means that many autistic children have no real sense of danger or risk. So, imagination and risk perception are intimately linked, linked, as Damasio would say, via feelings or emotion (but there is not space to explore this here in detail) – and this, it seems, from the beginning of the evolution of consciousness. Again being able to see something *as* something might be important here. Seeing something *as* a danger is in fact important for *survival*. As Damasio said: "The first concern for imagination, planning, and anticipation has to do with self-preservation." (http://www.the-scientist.com/yr2001/jun/bunk_p8_010611.html)

The drama of the human condition comes solely from consciousness. Of course, consciousness and its revelations allow us to create a better life... but the price we pay for that better life is high. It is not just the price of risk and danger and pain. It is the price of *knowing* risk, danger, and pain. Worse even: it is the price of knowing what pleasure is and *knowing* when it is missing or unattainable. (Damasio, 1999: 316)

So, imagination is important in the perception of danger, but imagination can also exaggerate or distort the perception of risk on the individual and social level. Imagined dangers are often much more 'dangerous' than real ones. This is potentiated through what one could call the enculturation of risk perception or the cultural cross-mapping between fact and fiction.

It has become apparent in research on the public understanding of science and the public understanding of risk that this understanding is frequently based on metaphors, images and literary narratives. When scientists announced in 1997 that

they had been able to clone a mammal for the first time, namely Dolly the sheep, public imagination, as displayed in the newspapers, on the web and in focus groups went into overdrive (Nerlich, Clarke & Dingwall, 1999). We saw monsters, androids, armies of little Hitlers, human spare-part factories, humans on assembly lines everywhere. *Frankenstein* and *Brave New World* became the catch-phrases of the day. What was astonishing was that the same images, metaphors, stock characters, clichés and cultural narratives were used over and over again and are still being used in debates concerning the ‘new genetics’, be it GM food, designer babies (Nerlich, Johnson and Clarke, 2003) or stem cells (Döring, in press). In recent articles I have looked at some of the most stereotypical of these ‘imaginative’ or ‘interpretative packages’ used by the public and the press. They are:

Metaphors: e.g. *clones are copies*, *clones are products*; these metaphors then invite inferences, such as ‘clones are used as a means for an end’ and ‘cloned children are consumer options’

References: to works of literature, such as *Frankenstein* and *Brave New World*, or films, such as *Boys from Brazil*, *Gattaca*, *AI*, to stock characters (Frankenstein), to sci-fi scenarios (that we will create armies of monsters or little Hitlers; that clones will be cyborgs or androids), to historical events, such as eugenics and genocide; people then base on these references dystopian predictions

Themes: ‘gaining immortality’, ‘resurrecting the dead’, ‘playing God’; these themes run through the factual and fictional discourse about cloning

Argumentative clichés: e.g. *opening Pandora’s box*, *crossing a line*, *taking the next step*, or *going down a slippery slope*

These metaphors, images, and argumentative clichés are help journalists and the

public to cut through a dense ethical jungle, but they can also lead to short-circuiting arguments. José van Dijck, author of *ImagEnation. Our Images of Genetics* (1998), has recently asked the question why there is such an imagination deficit when the public deals with these questions, especially since

The imagination offers a playful space to test ‘what-if’ scenarios – sites for reconfiguration – yet scientists and journalist all too often revert to familiar images if they want to sketch potential implications of the new genetics. (p. 20)

So, why is there on the one hand an effervescence of imagistic activity when new, potentially risky or potentially beneficial technologies appear, and on the other an imagination deficit or a routinisation of imagination? Is it because, in general, new knowledge is both created and assimilated more naturally when it shares some common pattern with old knowledge? Is it because, as psychologists who study decision making have alleged, “people have limited capacity for mental work, and [that] in order to deal with a complex and fast-changing world they have developed a number of simple modes of reasoning” (Maule & Hodgkinson, 2002: 68) and, I would add, imagining. Or can it be that what the policy experts Schön & Rein call “the number of metacultural frames at work in a society and, even more, the number of generative metaphors underlying these frames are relatively small and constant over long periods of time”. This would help when we are confronted with novel situations that are complex, uncertain, and indeterminate. If we can see them *in terms of* certain fixed frames and images then we think that we “know in what direction to move.” (1994: 28) Again, *seeing something as or in terms of something else* is important here.

This metaphoric reduction of complexity can be helpful, but it can also be harmful, especially if one metaphor, image or frame becomes too pervasive. As Jonathan Miller once said, once it “lodges in the imagination, it can successfully eliminate or discredit any evidence which might be regarded as contradictory.”

(Miller, 1978: XX). Framing an issue in terms of certain stock images or metaphors, that is as something well known, might therefore prevent us from seeing alternative solutions to a problem. In this way metaphors can become sources of error or bias. As the media sociologist Conrad has pointed out, “how we frame a problem often includes what range of solutions we *see as possible*” (Conrad, 1997: 140, italics ours).

One should stress however, that although people might pick simple metaphors and images to make the unknown understandable – this does not mean that metaphors are intrinsically simple and that although metaphors can reduce complexity, that does not mean that all metaphors reduce complexity, and finally that although metaphors can lead to biases they can also clarify things.

This means that seeing a social situation or contentious social or genetic issue through the glasses of a dominant metaphor, we might either overexaggerate the risks associated with it or undervalue the benefits associated with it or vice versa.

To give one illustration: the discussion of ‘designer babies’ has largely been under the spell of one powerful literary source of imagery, which has come into conflict with the medical and social reality of ‘designer babies’. Ever since the advent of test-tube babies, the discussion of babies created under artificial conditions has drawn on the images provided by Aldous Huxley’s *Brave New World*, where babies are grown in state-owned hatcheries and are produced under the control of the state on assembly-lines, a fictional frame that is intimately linked up with the historical frame of eugenics. IVF babies and (future) genetically engineered designer babies by contrast are born because parents want them to be born in this way. They are the result of individual choice, which is sometimes the only choice for parents who want to have healthy babies. We therefore have two conflicting frames: the state-planned baby scenario and the individual choice scenario. In many discussions in the media, the brave-new-world frame is unconsciously superimposed onto the individual-choice frame, so that fears and anxieties are provoked which would perhaps be less vivid were it not for the ever-present use of the powerful imagery associated with a fictional frame. Seeing a factual issue as a fictional scenario can therefore be as

illuminating as it can be adumbrating.

Conclusion

If the mind is a connecting organ, as is widely acknowledged today, metaphor can be regarded as a force of conceptual binding (between distant conceptual domains) and metonymy as a force of conceptual spreading (inside and across adjacent conceptual domains). Both forces together make the human mind and human language what they are. They are inherent in the basic structure of human language and in the basic structure of the human mind. And I would add: they, especially metaphor, are inherent in the basic structure of human society and human action too, as they connect fact and fiction, they connect people, they connect discourses, they connect the past, the present, and the future, and, most importantly, they connect what we do and think now with what we do or not do or think next, depending on how we *imagine* the future to be. It is my contention that metaphors contribute to neurological, conceptual and social coherence, integration and change.

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