

(Working paper)

Paul Bouissac (University of Toronto)

- The range of problems addressed by the emerging paradigm of cognitive poetics includes a dazzling number of points of view. It explores the interface between the environment, both physical and social, and human psychology in as much as this interface plays out in the creative process and the resulting works of art. So far, it tends to focus on the impact of poems and narratives on their readers or listeners. It also examines the feed-forward produced by these works of art in our experiencing and interpreting of the life-world within which we are immersed since we learn our language not only from our caregivers' small talk but also from the stories and poems they teach us. As we grow up, we assimilate increasingly complex and compelling artistic productions such as literary texts, visual and haptic arts, and music which give cultural shapes to our perceptions and emotions, and prompt us to creatively contribute to further poetic productions while at the same time perpetuating the categories which structure and saturate our life-world. Obviously, the epistemological agenda of the cognitive poetics movement has only been adumbrated to date by its pioneers. It promises nothing less than integrating a number of disciplines for the deep and inclusive understanding of human cultures and the way in which they mediate the challenging experience of life.
- This paper will consider a particular domain of multimodal creativity which developed at the beginning of the twentieth century and upset the literary and artistic canons of its time: Surrealism. This movement which started in France after the First World War produced an abundance of texts and visual art, including films. It also produced an elaborate theoretical discourse in the form of manifestoes, criticisms, and philosophical essays. The focus of the discussion will be the central notion of surrealist poetics: the image, a term that should not be understood in its usual visual sense but has the status of a trope endowed with great creative power and generality. The first part of the paper will explain and document the surrealist notion of the "image". The second part will endeavor to show the relevance of cognitive poetics for the understanding of some surrealist works. This part will be limited to only a few examples. The third part will attempt to frame the cognitive processes involved in the production and reception of surrealist images within the neuro-cognitive sciences of reward and addiction. In conclusion, the possibility of extending this perspective beyond surrealism to other artistic domains will be examined.
- The "**image**" is a crucial notion in Surrealism. It is closely related to all the other concepts that define the poetics of this movement such as automatism and objective chance. Louis Aragon, one of the main exponents of Surrealism, writes in *Paris Peasant*: "**The vice called Surrealism is the unruly and passionate use of the addictive drug 'image'.**" In his *Manifesto of Surrealism* (1924), André Breton provided a technical definition which he borrowed from a

contemporary, older poet, Pierre Reverdy: “The image is a pure creation of the mind. It cannot be born out of a mere comparison but only through the bringing together, the juxtaposition, of **two more or less distant realities**. The more the relationship between the two juxtaposed realities is **distant and true**, the stronger the image will be – the greater its emotional power and poetic reality”. This definition was restated in *Rising Sign* (1947) : “It should be remembered that thirty years ago Pierre Reverdy was led to formulate this capital law: **the greater and truer the distance between two juxtaposed realities, the stronger will be the image and the greater its emotive power and poetic reality**”. Examples of strong images offered by Breton include a poem by Reverdy in which “**dream**” is equated with “**ham**”, and one by himself in which “**dew**” is equated with “**cat**”. Naturally, the image in this sense also encompasses the visual medium. Max Ernst, who always claimed that his collages were dealing with meanings – let us understand “cognition”-- rather than with mere forms, produced hundreds of them, for instance in *La femme 100 têtes* (1929), such as a waiter with the head of a fish, or a woman with the head of a horse which is featured in *La mariée du vent* (1938) [see illustration at the end of the paper]. We will return later to consider the cognitive processes involved in these particular “images” which are mentioned here in order to provide concrete examples of what is exactly meant by “image” in the surrealist sense of this term.

- As it is the case in most meta-languages, **spatial concepts** are called upon to define this principle of poetics in consistent terms. Relative distance and juxtaposition convey indeed an impression of self-evidence. This meaning effect is created by the obvious complementariness of the spatial concepts of “distant” and “close”, “separateness” and “juxtaposition”, “disjunction” and “collocation”, and so on. It is nevertheless legitimate to question this immediate impression and to raise the following problems: What is the nature of the two “realities”? What exactly is meant by “distance”? What is the grammatical or logical technique that operates the juxtaposition in discourse? But before trying to answer these questions, let us listen to the specifications that Breton added to the core definition he borrowed from Reverdy.
- The “realities” involved are terms of the (verbal or visual) lexicon, that is, concepts whose meanings are determined by the categories to which they belong according to the worldview of their cultural context. These categories stand in various degrees of cognitive compatibility or incompatibility. Some overlap or can fade one into another as a matter of degrees. This is what happens when categories are analyzed in terms of radiality with respect to a prototype, or in term of componential analysis according to the number of property features they may have in common. By contrast, some categories stand in a relation of strong cognitive incompatibility with each other. Examples abound: human and animal in post-cartesian western cultures; basic foodstuff (ham) and mind stuff (dream) in European cultures; edible animals and un-edible animals whose categories varies greatly depending on cultures (sheep vs pig, or beef vs dog). In the last century, the structuralist anthropologists have mapped with great precision such **cognitive disjunctions between terms that cannot be thought together except in relations of mutual exclusion for largely arbitrary reasons (i.e., relative to a particular culture) in spite of similarities whose fore-grounding is taboo in a particular culture or sub-culture**.

- The surrealist image consists of re-categorizing some terms of the visual and verbal lexicon by foregrounding identities (from a particular point of view) that are otherwise **unthinkable** in the contextual culture. The ground for such re-categorizations may be a consideration of properties that are glossed over in the mainstream culture (for example, the claim by Freud that the stuff of dreams is ultimately sexual and relates to “cochonneries” (filthiness, sexual beastliness, derived from swine, but also food such as ham), or the discovery of similar cognitive relations rather than explicit contents (for example, a similarly paradoxical status in the respective categories of two terms, such as a paradoxical pet animal – the cat – and a paradoxical meteorological phenomenon like dew or fog. It is in this sense that the image produces a “spark of truth” (as Breton and Reverdy claimed) and an addictive elation (as Aragon emphasized). Taboos are broken and categories are unbounded. It is important to remember that the image is not the result of a random coupling but it must emerge spontaneously from the mind as its dynamic is deeply rooted in the “cultural” unconscious. It possesses a superior cognitive content in the sense that it creates knowledge. But it contains, as Breton claims, “**an unbreakable kernel of night**” because, I would contend, it comes with a built-in resistance to assimilation into the culture with respect to which it is not redundant. It is however “irreversible” because once the re-categorization has been achieved, it will keep haunting the culture it subverts.
- We can understand why the Surrealists were adamant to **distinguish their “images”** which were supposed to spontaneously erupt in the mind as they relaxed their own cultural inhibitions, **from literary comparisons and metaphors** because strong (tacit) constraints govern the production of the accepted categorical transgressions upon which metaphors are grounded. In fact “the metaphors we live by” are well domesticated images (like the spatial metaphors that sustain meta-languages) while the Surrealists were advocating to let images run wild and subvert their own culture through these means. The distance which is a precondition for the strength of the image is obviously a cognitive distance (categories that are cognized as being strongly disjoint) and the truth their conjunction creates is also necessarily of a cognitive nature. Different relevant features are called upon to set up new categories which blur or radically re-configure the standing cognitive order. This produce a shocking (epileptic?) effect such as reclassifying dreams as a subcategory of bestiality, or putting cats as subcategory of watery phenomena, or (*horribile dictu*) define woman as a kind of horse. Puns have the same effect because they implement the same sort of operation.
- A brief comment is in order concerning the notion of operators in the production of images. In the visual medium, it is a cut and paste process. But the surrealist collages were no more aimed at a purely aesthetic effect involving colors and shapes than the surrealist poems were aimed at rhythm and melody. Max Ernst insisted that he was dealing with meanings in his collages, and Breton abhorred music. In the language medium images are syntactically produced by predication: x is y, x does z which implies that x is y, or x has property v or feature w which implies that x is y. Mere juxtaposition is also often used such as in the last verse of Apollinaire’s *Zone*: “soleil cou coupé”.

- Let us return in conclusion to the assertion by Louis Aragon which was quoted earlier concerning the **addictive nature of the image**, and let us examine it in view of both the cognitive processes which have been explicated in this paper and some recent empirical **research on reward and addiction**. Indeed there is no good reason to exclude the advances made in the cognitive neuro-sciences from the cognitive framework within which literary works and their impact on readers can be understood. This research concerns **the general notion of reward** defined as an outcome that is experienced as positive and motivating to the point that the organism will tend to repeat the process or seek again the situation which delivers such a **high**. This can be achieved through the ingestion of substances which have neuro-chemical effects. But this is also achieved by purely cognitive processes which trigger the same neuro-chemical results as various psychotropic drugs. In fact the success of these various drugs comes from their ability to mimic the natural processes which activate the dopaminergic functions of the mid-brain. It suggests that to be **hooked by a story or a poem (or by a film)** is not a metaphor but a real, physiological phenomenon. Some cognitive events apparently trigger a response in some parts of the brain that deliver dopamine the neuro-chemical which is associated with euphoria.
- A brief look at what is meant by “dopaminergic system” is in order.

Neuroscientist call these brain areas reward centers. They respond to anticipation of information and are sensitive to unexpected outcomes which stimulate the dopamine pathways leading to the brain’s reward center. There is evidence that a virtual outcomes can stimulate the dopaminergic neurons as effectively as actual rewards. Hidden patterns recognition, unexpected discovery of connections, sudden understanding of an elusive meaning cause a kind of elation or high which apparently involves the release of dopamine in the mid-brain system, undoubtedly among many other processes. How these processes correlate with feelings that are difficult to articulate linguistically deserves more attention. Such questions might serve as a productive bridge between the two cultures that cognitive poetics painfully straddles.

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- Some concluding reflections. It seems to me that what goes under the name of cognitive poetics is for the time being a coupling of two discourses. On the one hand, the discourse of traditional literary analysis. On the other hand, the romantic discourse on emotion dressed up in the garb of psychology as it developed in the nineteenth and twentieth centuries. Opposing interpreting to experiencing is fine except that experiencing is a form of interpretation. Both are forms of *interpretants* in semiotic terms. This does not amount to any kind of explanation. The paradigmatic shift will be achieved only when the discourse of reference will be the cognitive neurosciences rather than what currently goes under the name of cognitive science. The latter provides a slightly different descriptive lexicon but cannot lead to counter intuitive discoveries, that is, it cannot produce knowledge but simply make explicit redundancies at infinitum.

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