Preserved painting abilities after a stroke. The case of Paul-Elie Gernez

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Invited paper

Summary

In a famous paper published in 1948, the French neurologist Théophile Alajouanine discussed the influence of aphasia on artistic output. He used as examples three artists he had personally examined. They were the musician Maurice Ravel, the writer Valéry Larbaud, and a painter whose name was not mentioned. We have now discovered the identity of this painter and therefore present, with the permission of his family, an analysis of the works of Paul-Elie Gernez (1888-1948) before and after his cerebral stroke. This painter’s ability to produce works of art was not really diminished by his aphasia. However, we do believe that there was a change in his style, which seemed to become less poetic, as though his ability to “invent” had decreased and he had lost some of his spontaneity. This and other published cases strongly suggest that in some artists the effect of cerebral lesions is different from that found in individuals with no artistic training. This difference may be attributable to the presence, in the former, of an expanded cortical representation, secondary to their lifelong formal training.

KEY WORDS: history of neurology, neurology and the arts, neuropsychology, stroke.

Introduction

The consequences of cerebral lesions on artistic creativity are quite complex, and there is general agreement that they vary according to whether or not the patient is a trained artist. This variability seems to be particularly apparent in relation to drawing and painting. In untrained individuals, cerebral lesions tend to impair several aspects of drawing aptitude, such as constructional abilities (1) and, in subjects with aphasia, the capacity to associate color with objects (2). On the other hand, there are sever-
teaching post and devote himself to his art. Of frail build, Gernez was fortunately considered unfit for military service during World War I.

In terms of artistic style, Gernez is known as a naturalist painter. He started with paintings and drawings, mainly still life, nudes, boats and landscapes. We are told that he experimented with pointillism and that later on, towards 1920, was inspired by cubism. We have found no trace of paintings from that period, but the curator of the Boudin Museum explains that what the artist retained from this period was his way of depicting his subjects in a solid fashion and of giving shape to his compositions, which, in his artistic maturity, “are tinged with poetry, intimacy and sensuality, striking for their originality and for the poetic vision they express” (7). His manner of observing light and sea reminds one of the artistic style of some of the paintings of Johan Jongkind. Alajouanine goes so far as to say that when looking at Gernez’s paintings, one feels the sensuous poetry of Baudelaire and the polyphonic music of Debussy. Figure 2 shows a work by Gernez painted in 1931.

In 1940, at the age of 52, Paul Gernez was suddenly affected by aphasia secondary to a cerebral stroke. This followed two short, transient aphasic spells. The only clinical details available are those provided by Alajouanine (4), who knew the painter very well, although it is not clear whether they first became acquainted before or after the stroke. Alajouanine wrote that the aphasia was of the Wernicke type, with no phonetic problems or right-sided hemiplegia, but with a “slight hemianopic defect”. Gernez also presented a transient apraxia. His spoken language was severely impaired, and he showed anomia and marked agraphia. Gernez’s comprehension was reportedly “relatively good”, although Alajouanine states that there was no evidence of intellectual deterioration, but Gernez showed an accentuation of his premorbid introverted personality. He also became more irritable and was often quite depressed. He was quite aware of his deficit. Replying to a person who was congratulating him on his continuing artistic activity, he once remarked: “There are two men inside me, the one who paints, who is normal while he is painting, and the other one who is in a vague state, who is lost, who does not stick to life. I don’t express myself well. One of the men is in perfect touch with life and with reality. The other one is lost in an abstract world. When I am painting I am outside of my life; my way of seeing things is even more intense than before; I find everything again; I am a whole man. Even my right hand seems alien to me, but I do not notice it when I am painting. There are two men, the one who grasps reality in order to paint, the other one, the fool, who cannot manage words any more.”

He resumed painting after his stroke, as soon as his apraxia improved, and he continued to paint up until the time of his death eight years later. Alajouanine stated that Gernez’s art remained at the same level of excellence as before and that there were no changes in his artistic skills or style. He even remarked that connoisseurs believed “he had found a more intense and acute expression”.

The published monograph on Gernez (6) shows some paintings dating from before and after his stroke. Furthermore, thanks to the kind cooperation of his family, we have been able to inspect additional paintings, again from before and after 1940. We agree with Alajouanine that no error of form, expression or color interpretation can be found in the works painted after the stroke. However, we maintain that there does appear to be a change in Gernez’s artistic style, the later period seeming to coincide with a tendency to produce more concrete and realistic paintings (Fig. 3). The almost oneiric poetry found in

Figure 2 - Nu et coquillages, 1931 (before the stroke).

Figure 3 - Fleurs, 1941 (after the stroke).
some of the artist's previous paintings (Fig. 2) seems to have disappeared in the works painted after his stroke.

Discussion

Gernez's aphasia did not, in truth, interfere with his ability to produce works of art. However, there does seem to have been a change in his style, which appears to have become somewhat less poetic and less creative after his stroke, rather as though his ability to "invent" had decreased and he had experienced some loss of spontaneity. We must, however, stress two points. First of all, we were not able to inspect the entire body of the painter's post-stroke work and we cannot exclude that he may have produced works that were just as full of poetry and originality as some of the works he painted before his illness. In addition, most artists tend to change their style as life progresses and it is practically impossible to affirm that any changes in his style can be attributed to his stroke and to its ensuing symptoms. That said, we found nothing to support Alajouanine's affirmation that Gernez's style showed more "intensity" after his stroke.

As mentioned in the introduction, it has been found that the effects of cerebral damage, particularly aphasia, on visual, visuospatial and drawing capacities differs according to whether or not the patient is a professionally trained artist. In untrained subjects, drawing, be it spontaneous or formally tested (8,9), is often found to be impaired. First of all, drawing and related abilities may be impaired by constructional apraxia (10) and unilateral spatial neglect, particularly following lesions of the right hemisphere, but also, to a lesser extent, of the left hemisphere (1). Left hemisphere lesions can also be accompanied by various disorders relating to color, such as color aphasia (difficulty naming and indicating colors in the absence of aphasia in other domains) (11) and color amnesia (inability to recall the color of an object) (12). In addition, aphasic patients often have difficulty associating color with objects even when no overt verbalization is required. De Renzi and Spinnler (2), for example, demonstrated a severe deficit in color tasks involving language. In addition, more than half of their aphasic population showed a marked deficit in coloring objects (Fig. 4). This abnormal coloring of objects was correlated with the severity of the aphasia and with the presence of a right hemianopsia. There is some evidence that left hemisphere lesions also impair imaging (13) and even ability to recall dreams (14). In professionally trained artists, the effect of aphasia is quite variable. Striking examples of stylistic changes are found in the case of Federico Fellini, not a professional painter, of course, but nevertheless a person who frequently expressed himself through drawings (cartoons). Following a right hemisphere stroke, his cartoons showed clear evidence of left-side neglect while losing nothing of their humoristic impact, line composition and figural integrity (15).

A Polish painter described by Boydar Kaczmarek (16), following an aphasia, was still able to produce skilled charcoal drawings, but lost his previous ability to paint highly symbolic paintings. He was quite aware of his deficit and complained that his mind was blank and that he could not recapture his pre-morbid style of symbolic painting.

There have been several other instances of painters continuing to work successfully after the onset of aphasia. Alajouanine cites the example of Daniel Urrabieta, known...
as Vierge, a Spanish draftsman who, despite his aphasia, continued to produce illustrations (17). The Bulgarian painter Zlatio Boiyadjiev has been studied in detail by Zaimov et al. (18). Boiyadjiev’s pre-aphasic style was natural and pictorial and he used mostly earthy tones. Following a left hemisphere stroke, critics said that a new painter was born. His paintings became richer and more colorful, with flowing, energetic lines demonstrating great vigor and inventiveness. Much of the imagery was bizarre and fantastical. Zaimov suggested that the left hemisphere lesion had liberated the artist’s creative potential. Jason Brown, a neurologist, has commented on the case and speculated that this kind of painting might reflect the right hemisphere’s looser sense of semantic boundaries (19). This is reminiscent of the hypotheses concerning Ravel’s latest works (20).

Mazzucchi et al. have studied in detail nine painters, all of whom started painting again some time after a stroke (21): four had suffered a cerebrovascular accident affecting the left hemisphere (three of the four – Zlatio Boiyadjiev, Gianfranco Fasce and Renzo Schirolli – had become aphasic, whereas the fourth – Afro Basaldella – had not). All four painters displayed changes in artistic style, regardless of the presence or absence of aphasia. These stylistic changes consisted of chromatic simplification, loss of nuances and loss of plasticity in their figures which, as a result, become rigid-looking. It is also possible to observe frequent overlapping of various portions of the painting. Added to this, there is a loss of perspective and three-dimensionality with poor definition of the various levels, and a lack, or at least uncertainty, of spatial depth; the paintings are also characterized by rigid strokes and a certain repetitiveness.

The five painters with right hemisphere lesions (Otto Dix, Anton Raesedescheidt, Lovis Corinth, Segundo Agelvis and Guglielmo Lucignoli) also showed stylistic changes which were in fact more remarkable than those seen after left hemisphere strokes. These painters’ post-stroke works are characterized by a loss of correct spatial relationships between figures and by a varying tendency to show left-side neglect. The latter ranged from actual neglect of the left part of the canvas to asymmetry in their execution, and stylistic decline on the left. These artists also made greater use of elementary and often bold colors, impulsive and approximate pictorial strokes, loss of the “claire-obscure” effect, marked simplification of figures and loss of three-dimensionality.

In discussing Gernez’s preserved painting abilities, Alajouanine hypothesized that aphasia might deeply alter the work of abstract painters, given that these artists produce paintings based not on predominant sensory elements, but on “abstract figuration, that is true ideograms”. However, some of the paintings produced after the onset of aphasia, by artists such as the Italian Gianfranco Fasce, do not support this statement.

Alajouanine lost no opportunity to stress that aphasic patients, particularly the ones he described in his article (4), have not lost their intelligence, thus contradicting Pierre Marie’s idea on the subject (22). According to Marie’s line of thinking, one might expect dementia to alter profoundly a painter’s artistic abilities. This seems to have been true of Willem De Kooning, who was diagnosed with Alzheimer’s disease and whose later work deteriorated (23). However, there have been instances of individuals with dementia continuing to paint successfully, like the artist described by Fornazzari (24), or even showing an apparent “improvement”, like the amateur painters described by Miller et al. and by the Laurent group (25, 26).

Is the preservation of artistic abilities after aphasia restricted to the sphere of painting? Alajouanine seemed to think so, given that, of the three aphasic artists he described, only Gernez went on producing works of art. The writer Valery Larbaud and the musician Maurice Ravel, affected respectively by Broca’s and by Wernicke’s aphasia, lost their ability to produce art. However, there have been instances of preserved abilities in people who are not painters. For instance, Tzortzis and her colleagues described a professional musician who was able to go on making a living from his music despite being affected by a rather severe primary progressive aphasia (27). These cases strongly suggest that in some artists the effect of cerebral lesions is different from that found in non-artists, perhaps because of an expanded cortical representation, secondary to their lifelong formal training.

Acknowledgments

The first author wishes to express his gratitude to Stéphane Le Bon and his wife Anne Le Bon-Gernez for providing access to several Gernez paintings and for their permission to reproduce figures 1, 2, and 3. Mrs Anne-Marie Bergeret-Gourbin, curator of the Boudin Museum in Honfleur, provided invaluable information on Gernez. Professor Alain Goutelle (Lyon) and Professor Edward Nersessian (New York) also provided useful input. Dr Latchezar Traykov provided further data on Boiyadjiev. A preliminary version of this paper was presented at the 55th Annual Meeting of the American Academy of Neurology, Honolulu, Hawaii, April 2003. A modified version of this paper appears in a book: Bogousslavsky J and Boller F eds Neurological Disorders in Famous Artists. Basel; Karger 2005: 92-100. Portions of that chapter, as well as the figures, are reproduced here by kind permission of the publisher.

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Alajouanine’s painter

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