The visions of artists with epilepsy: Implications for neuroscientists

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ABSTRACT

Artists with epilepsy present unique views of their condition to the world, and their artistic expressions have implications for researchers interested in the neurophysiological, psychological, and social aspects of epilepsy. Among the many works of contemporary artists with epilepsy that I have collected, a subgroup pertains to the nature of seizure experiences and associated mood disorders. Often, these images provide insights into underlying neurophysiology that are not otherwise possible to obtain through in vitro assays, animal models, psychometric instruments, or the verbal expressions of patients. This article focuses on examples of art that may inspire neuroscientists to generate hypotheses that will further explore the underlying neurological basis to the experiential phenomena of epilepsy and complement the sophisticated studies described elsewhere in this supplement.

1. Introduction

The history of art and science provides two enduring lessons. First, significant, if not revolutionary, progress follows from challenging and then replacing assumptions about the world using emerging methods and approaches, as further discussed in this supplement by Professor Garcia-Cairasco. Second, such progress during a given period of history may result from cross-pollination of ideas across disciplines in the arts and sciences. In this context, the art of contemporary artists with epilepsy may therefore have implications for today’s scientists interested in epilepsy.

As elaborated in more detail elsewhere [1], I have collected the works of artists with epilepsy for more than 15 years, beginning with an art show in 1992 called “From the Storm” (http://www.dowhole.org/physical/overview/presentations/asci/storm.html), which was curated by Jennifer Hall, herself an artist with epilepsy [2].

I was pleased to help support the show and its subsequent worldwide tour and, over time, began to appreciate the potential scientific significance of the works as well as their more immediate relevance to patients with epilepsy and their families, health care providers, the larger epilepsy community, and the general public. Soon thereafter, I launched a series of annual calendars, initially featuring the art from the show and distributed to physicians, nurses, and epilepsy advocacy groups. As a result, dozens of artists with epilepsy from around the world sent me examples of their art, now totaling close to 1200 pieces, from which I have featured selections on the covers of epilepsy books and issues of this journal. The title of this article was adapted from, and much of the art was originally published in, a book of collected art and artists’ statements called Visions: Artists Living with Epilepsy [3].

I have been invited to present and discuss this art at major scientific meetings in Brazil, England, and the United States, which suggests to me that the scientific community understands the importance of exploring this art, not only for its beauty, but for the first-hand visual observations of epilepsy-related experiences. There are three general themes reflected in the art that are relevant to scientific inquiry: seizure experiences, psychiatric comorbidity, and psychosocial aspects of epilepsy [1]. This article features examples that pertain to seizure experiences and associated mood disorders.

2. Seizure experiences

By definition, nonmotor simple partial seizures occur during full consciousness, and usually consist of subjective experiences that are unapparent to others and often do not occur in ordinary daily life. The specific symptoms reflect the anatomic localization of the seizure focus and/or the network activated by the seizure and, as such, offer a window into brain–behavior relationships and neuroethology. Observing and measuring subjective seizure experiences, however, is methodologically problematic, and verbal descriptions are often insightful [4], but may be less informative than visual depictions.

For example, some patients have unformed, elementary visual symptoms as the primary manifestation of their simple partial
seizures, such as depicted in Fig. 1. Other persons have more complex distortions of body image, such as so-called out-of-body experiences, which are largely visual in nature and examples of cognitive simple partial seizures (see Fig. 2).

3. The postictal state

The physiology of the postictal state is poorly understood. Common symptoms are shame, embarrassment, depression, loss of contact with reality as expressed in Fig. 3, and visual perceptual distortions as shown in Fig. 4. The reality of regaining consciousness after a seizure is illustrated in Fig. 5.

4. Epilepsy-associated mood disorders

Depression and anxiety are the most common comorbid psychiatric disorders associated with epilepsy. Depression may arise from epilepsy-related brain dysfunction [5,6] and occurs in a large proportion of patients whose seizures are refractory to treatment [7]. Depression, conveyed in Fig. 6, is underrecognized and, when diagnosed, often insufficiently treated [8].

Similarly, a significant proportion of persons with epilepsy, especially those with medication-resistant seizures, have an associated anxiety disorder [9]. Some patients experience anxiety as an example of affective simple partial symptoms, as depicted in Fig. 7, and described by another patient [4]: “I experience a combination of déjà vu with extreme fear. Nothing I can do takes me out of it. Everything that happens becomes a part of it. The general feeling is like being in front of an oncoming train with no way to escape.”

5. Conclusion

These examples of the works of contemporary artists with epilepsy offer insightful perspectives into the nature of seizures and comorbid affective disorders. Methods are now needed to translate their observations and those of other artists into testable hypotheses that will further our comprehension of the underlying neurophysiological bases of ictal, postictal, and interictal experiences. In this way, their art may contribute to the emergence of a new paradigm in the neurosciences.
References


Fig. 4. Epileptograph, Isabelle Delmotte, 1992, still excerpt from video. Reprinted from [3] with permission.

Fig. 5. Faces in Circle, Volker Rodermund. Reprinted from [3] with permission.

Fig. 6. Abstract Face, Jude Rouslin, 2001, Computer generated, 8.5 × 11 in. Reprinted from [3] with permission.

Fig. 7. Grey Abstract, 1999, Jude Rouslin, computer generated, 8.5 × 11 in. Reprinted from [3] with permission.