Art of Medicine

Oncology meets Art: a way to understand patients' symptoms

2 years ago, during a regular outpatient consultation, a 55 year-old literate patient came into our office. He had been experiencing stressful paroxysmal phenomenon for a month. Indeed, he described to us what he called "a Francis Bacon self-portrait experience": he was seeing himself outside of his body, with his face being distorted. To help us understand, he had brought with him a reproduction of Francis Bacon's *Study for Self-Portrait* (1973; image).

Francis Bacon (Oct 28, 1909, to April 28, 1992) was an Irish-born, British figurative painter known for his bold, grotesque, emotionally charged, raw imagery. He is best known for his depictions of popes, crucifixions, and portraits of close friends. Following the suicide of his friend George Dyer in 1971, his art became more sombre, inward-looking, and preoccupied with the passage of time and death. The climax of this later period is marked by masterpieces, including his *Study for Self-Portrait*.

The patient had also brought with him his MRI scans showing a low-grade glioma of the right hemisphere, involving the temporoparietal junction. His neurological examination was normal. So, where did his surrealist symptoms originate from? As clinicians, we were confronted with an issue: could this out-of-body experience be considered as a neurological symptom linked to his glioma? According to the literature, this kind of experience results from a disturbance of the visuospatial representation of the patient's own body, called autoscopy. The term autoscopy comes from the Greek words "autos" (self) and "skopeo" (looking at). It is used to define psychic visual experiences in which the patient perceives their body either from an internal point of view (as in a mirror) or from an external point of view (out-of-body experience). Among various psychiatric and neurological diseases, partial epilepsy is the main cause. Several neuropsychological and neuroimaging studies implicate the right temporoparietal junction in autoscopy.

Knowing the importance of the right temporoparietal junction to preserve cognitive functions, we decided to do an awake brain-mapping surgery by cortical electrical stimulation to remove the patient's tumour, while aiming to preserve his visuospatial representation. During the procedure, we induced similar distorting so-called Francis Bacon experiences by electrically stimulating the right temporoparietal cortex, at the level of the intraparietal sulcus. After removal of the tumour, the patient was neurologically intact and no longer presented this ictal symptom.

As the patient's analogy with Francis Bacon's self-portrait curiously suggested, autoscopic phenomena are considered to be at the origin of many self-portrait paintings by Durer, Rembrandt, Velazquez, or Schiele. All seem to have experienced, at least once, these type of symptoms, which translated into some of the most famous self-portraits ever painted. Francis Bacon did not have a brain tumour, and the objective of this Perspectives piece is not to discuss what was happening in his brain when he created his self-portraits. However, this case emphasises how paintings can help express one's feelings or symptoms without words.

Interestingly, the more the patient has large cultural baggage, the more it allows him to accurately describe his own perceptions. In the doctor's brain, this surrealist experience becomes more realistic and tangible as advances in neuropsychological and neuroimaging studies made this type of symptom a medical reality. The experience shared by our patient is, to our knowledge, the first report of dysmorphic autoscopy, reminding us of the surrealist, abstract work of Francis Bacon. In addition to the cultural inference, this case highlights the importance of preserving right hemisphere functions while treating patients, especially their visuospatial cognition.

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The Estate of Francis Bacon

Francis Bacon, *Self-Portrait* (1973)
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For the **studies discussing the right temporoparietal junction in autoscopy** see *Front Neurol Neurosci* 2018; **41:** 1–13 and *Brain Res Brain Res Rev* 2005; **50:** 184–99

For more on **brain anatomy and cognitive functions** see *World Neurosurg* 2018; **118:** 348–359

For more on **brain mapping surgery** see *Lancet Neurol* 2005; **4:** 476–86 and *Nat Rev Neurol* 2015; **11:** 255–65

For more on **autoscopy symptoms** see *Neuroscientist* 2005; **11:** 16–24