Neural Plasticity

Hindawi

Special Issue on

Neuroplasticity of the "Sexual" Brain: The Light Shed by Neuroimaging Techniques and Other Observations

CALL FOR PAPERS

Neuroimaging techniques, both invasive and noninvasive, provide a way to either directly or indirectly image the structure, function/pharmacology of the nervous system both globally and locally. Sex-related topics are normally taken as taboos, but, in neuroimaging community, many researchers have endeavored to look into the neural underpinnings of normal and abnormal sexual processes and have elucidated many interesting and promising findings on sexuality.

Neuroplasticity is an intrinsic property of the brain, a literal "brain child" of evolution, and proved to be evolution's self-liberating growth from the nervous system's limiting genetic blueprint. Neuroimaging techniques have provided inspiring evidence in measuring how learning and experience sculpture the brain in the context of neuroplasticity. In recent years, academics have gradually acknowledged the role of learning and experience in shaping sexuality in humans and animals, eventually leading to altered sexual behavior both typically and atypically, either for purposes of productivity or pleasure. To a fair extent, sexuality is a learned process. The way we do this, who to do this with, where and when to do it, be it alone or with another person, is strongly shaped by learning from experience. Note that influential sexual experience is not necessarily positive, which may explain how sexual difficulties or even dysfunctions develop. And the learning process shapes and modifies human brain function with respect to components of sexual activity, which in return influences subsequent sexual behavior. Recent developments in neuroimaging analysis are expected to open up exciting new avenues to more precisely outline neuronal networks and functional connections relevant to higher-order regulation of sexual function, which could encompass the role of learned associations.

The purpose of this special issue is to publish high quality research papers as well as review articles addressing recent advances on sexuality using brain imaging techniques. Original, high quality contributions that are not yet published or that are not currently under review by other journals or peer-reviewed conferences are sought.

Primarily, articles use neuroimaging techniques and focus on learning in sexuality in the context of brain or brain; peripheral interactions are the primary target of the current special issue. The neuroimaging techniques include but are not restricted to magnetic resonance imaging (MRI), positron emission tomography (PET), electroencephalography (EEG), magnetoencephalography (MEG), near-infrared spectroscopy (NIRS), multielectrode arrays recording (MEAs), and single-unit recording.

Potential topics include but are not limited to the following:

- Studies on sexuality employing both animal models and human subjects (healthy subjects or patients)
- Neural correlates/brain networks of normal and abnormal sexual behavior
- Field conditioning of sexual arousal in humans/animal
- Potential gender differences in high-level processes associated with sexual activity
- Sexual addiction
- The brain plasticity in the context of sexual aggression
- The brain plasticity in the context of social and cultural influence, such as exaggerated moral or self-referential thinking
- The brain plasticity and atypical sexual experience, such as psychogenic sexual disorder
- Clinical case reports on patients with brain lesions and sexual disorder symptoms
- Pathological/altered sexual behavior and the neural representation
- Neural imaging studies related to transsexuality
- Further, studies using nonneuroimgaing methods but centering upon learning in sexuality are also within the scope of this special issue. Please note that studies that follow into this category are not necessarily restricted to brain studies like
    - Sexuality development
    - Behavioral observations
    - Imaging genetics studies on sexuality
    - Neuroinformatic studies on sexuality

Authors can submit their manuscripts through the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/np/nsb/.

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