DISCUSSION: Our review of the literature demonstrates agreement in findings of traditional and contemporary assessment techniques of facial expressivity in schizophrenia. Our findings also demonstrate that current computer vision techniques have achieved capacity to differentiate schizophrenia from control populations and to predict psychometric scores. Nevertheless, the predictive accuracy of these technologies leaves room for growth. On analysis our group found two modifiable areas that may contribute to improving algorithm accuracy: assessment protocol and feature inclusion. Based on our review we recommend assessment of facial expressivity during a period of silence in addition to an assessment during a clinically structured interview utilizing emotionally evocative questions. Furthermore, where underfit is a problem we recommend progressive inclusion of features including action unit activation, intensity, action unit rate of onset and offset, clustering (including richness, distribution, and typicality), and congruence. Inclusion of each of these features may improve algorithm predictive accuracy.

CONCLUSION: We review current applications of computer vision in the assessment of facial expressions in schizophrenia. We present the results of current innovative works in the field and discuss areas for continued development.

57
Pareidolia as a Manifestation of Folie á Deux

Monica Khokhar[1]; and Allan Richard Hirsch, MD[2]

[1] Medical student: Aureus University School of Medicine, Aruba
[2] Smell and Taste Treatment and Research, Chicago, IL, USA

ABSTRACT: Introduction: The spreading of pareidolia, the visualization of one image inside another image, from one member of a couple to another one is seen in a subtype of folie á deux called folie imposée.

CASE STUDY: A 27 year old right handed male started having delusions two years prior to presentation. He experienced marked hallucinations in which he saw faces imbedded in clothing and demon-like faces that would appear in curtain shades. During his visual hallucinations, "demonic-like angles would tell me how to get to heaven." His pareidolia would be such that he would be looking at shadows on the walls or folds in clothing and see images within another. His fiancé, whom which he had been with for six years, also began to have pareidolia where she would be able to see facial images in furniture; for example, a chair would have an evil face or folds of material would have a jagged, folded distortion. These persisted more prevalently when she was with him.

RESULTS: General physical examination: Hypopigmented skin. Mental Status Examination: Feelings of unreality, blunted affect, disorganized and pressured speech, flight of ideas. Thought process: abnormal with circumstantiality. Cranial Nerve Examination: Cranial Nerve 2: Visual acuity 20/70 OD, 20/50 OS. Retinal freckles OS. Cranial Nerve 3, 4, 6: bilateral tortuosity. Cranial Nerve 9, 10: deviated to right. Motor Examination: Drift test: right abductor digiti minimi sign. Cerebellar Examination: decrease amplitude to move left upper extremity. Finger to nose with dysmetria bilaterally. Reflexes: Brachioradialis: right 1 + , left 3 + . Biceps: right 1 + , left 2 + . Triceps: 2 + bilaterally. Knee Jerk: right: 2 + and pendular. Ankle Jerk: 3 + bilaterally.

DISCUSSION: Healthy pareidolia where images inside clouds or images of constellations and star formations is a zeitgeist of imagination which is more intense in some cultures than others. Folie á deux is a shared delusional disorder and folie imposée is a subtype when the dominant or principal person forms a delusion and imposes it onto the secondary or associate person. If folie imposée pareidolia is spread from one member of a couple to the other, it suggests that the second individual may be overly empathic to the first due to the dominating nature of the principal individual; the associate individual may be passive and submissive and thus accepting these visual perceptions more willingly. Alternatively, the associate individual could already have pareidolia of visual images which subliminally influenced the principal individual to have them, and can be misinterpreted as the opposite. In this patient, the dominant person had a multitude of different delusions but the delusion of pareidolia was the one which transferred to the associate. It is unclear as to why it was this that transferred as opposed to the other delusions and further investigation in this realm is warranted.

58
Case Report: Clinical Challenges in the Diagnoses and Management of Delirious Mania in a US Veteran with a Mental Health History of Bipolar Disorder

Muhammad Zaidi, M.D.[1]; Kurt Brown, M.D.; Aquanette Brown, M.D.[3]; Dominique Neptune, M.D.; and Vicenzio-Holder Perkins, M.D.

[1] Saint Elizabeths Hospital, Washington, D.C.; Veteran Affairs Medical Center, Washington, D.C.
[3] Medical Director Inpatient Mental Health Services, Psychiatry, Department of Veteran Affairs Washington, DC

https://doi.org/10.1017/S1092852919000440 Published online by Cambridge University Press