



Accent Echoing: A Newly Described Imitation Phenomenon of Psychosis?

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Echolalia and echopraxia are well-known clinical phenomena exhibited in several psychiatric disorders, including schizophrenia, bipolar disorder with psychotic features, autism and Tourette's disorder. The phenomena are characterized by contextually inappropriate repetition of either speech or behavior in a parrot-like fashion. While echoing of words and actions may be found relatively frequently in this patient population, a case of echoing of language accents remains unreported. Although there is a report of a patient displaying a single foreign accent-like syndrome during psychotic exacerbations [1], we describe for the first time a patient who, during a psychotic state, demonstrated a clear echoing of multiple language accents of which she was unaware.

Patient Description

This 24 year old British female tourist with a known previous history of paranoid schizophrenia and no previous medical problems was referred for management to our psychiatric institution in Israel following disruptive, agitated and aggressive behavior on arrival into the country. On admission, she was noted to be fully conscious and oriented, but to be exhibiting marked psychotic behavior. The physical, including neurologic, examination was normal. She admitted to recent non-compliance (2 month duration) with her psychotropic medication (sulpiride 1,800 mg/day and venlafaxine 75 mg/day), and was placed on a medication regimen consisting of olanzapine (15 mg/day per

os) and clonazepam (4 mg/day per os), as well as clothiapine (40 mg per os or intramuscularly) for sedation on an "as needed" basis. In addition to paranoid and grandiose ideation concerning her role in the world, she exhibited a formal thought disorder characterized by circumstantiality and tangentiality with intermittent episodes of looseness of association. Interestingly, despite her British origin, she was noted to speak her native English in an accent reflecting the precise accent of those individuals with whom she was speaking with at the time. Considering the multicultural and diverse origins of mental health workers and patients in the hospital, this would take on the form of Israeli, Arabic, Russian, South African, North American, or English accents. The patient remained completely unaware of this conduct. This assumption was made with fair certainty by the treatment team, based on frequent inquiring as to her awareness of this behavior at the time of the accent echoing as well as during the post-psychotic period. In addition, it should be noted that this unawareness was in contrast to other psychotic behavior that the patient was able to recall following resolution of the acute psychotic episode. No evidence of echolalia or echopraxia was noted. Following 2 weeks of acute psychiatric management consisting of firm limit setting, antipsychotic medication management as listed above, and the addition of valproate administered as a mood stabilizer (plasma level of 82 mg/ml), the patient appeared to stabilize with resolution of

delusional ideation. All evidence of accent echoing disappeared, and the patient continued to maintain an accent consistent with her country of origin.

Comment

Echoing of behavior is well known to reflect psychotic behavior. Furthermore, language is often affected by psychotic states. It remains unclear why in this patient psychotic effects on language were manifested in the form of multiple accent imitation. While the echoing is often obvious to the observer, the patient usually remains unaware of the behavior. Since no formal term exists for the observation, it may be suggested, in keeping with other terminology of echoing noted in similar psychotic behavior, that the term "echoaccentia" be an apt and pertinent description of the phenomenology.

Bleuler [2] considered the imitation symptoms of echolalia and echopraxia to be "phenomena of restitution," in which patients make use of imitation in an attempt to regain the world of objects from which they have been withdrawn. While the precise pathophysiology or neural basis of "echoing" remains unknown, echolalia has been observed in patients with neurologic illness including transcortical aphasia, systemic lupus erythematosus, non-convulsive status epilepticus and Pick's disease. In addition, by means of computed tomography and isotope scanning, pathology has been detected in the posterior parietal-occipital region [3]. More recently, a candidate for the neural basis of imitation

behavior including echolalia has been considered from a newly discovered class of neurons in frontal cortex known as “mirror neurons.” Early developmental failures of these mirror neuron systems are thought to result in a consequent cascade of developmental impairments that may be characterized by the clinical syndrome of autism [4]. To what extent these mirror neurons may be affected in psychosis and what role they may play in imitation in the context of psychotic behavior have yet to be determined. The patient we describe did not appear to be exhibiting features of “foreign accent syndrome” [5] since she did not speak consistently in any one foreign accent, did not demonstrate evidence of

any lateralized lesion as is usually the case, and the observed foreign accent always took the form of the individual’s to whom she was speaking at the time.

Although no other reports have been described of the occurrence, additional appearances of the clinical observation cannot be ruled out. If noted, further reports of the condition should be encouraged in order to definitively characterize and describe the phenomenon.

References

1. Reeves RR, Norton JW. Foreign accent-like syndrome during psychotic exacerbations. *Neuropsychiatry Neuropsychol Behav Neurol* 2001;14:135–8.
2. Bleuler E. The basic symptoms of schizo-

phrenia. In: Rapaport D, ed. *Organization and Pathology of Thought*. New York: Columbia University Press, 1951:581–649.

3. Kertesz A, Sheppard A, MacKenzie R. Localization in transcortical sensory aphasia. *Arch Neurol* 1982;39:475–8.
4. Williams JH, Whiten A, Suddendorf T, Perrett DI. Imitation, mirror neurons and autism. *Neurosci Biobehav Rev* 2001;25:287–95.
5. Takayama Y, Sugishita M, Kido T, et al. A case of foreign accent syndrome without aphasia caused by a lesion of the left precentral gyrus. *Neurology* 1993;43:1361–3.

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