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## Obsessive-Compulsive Disorder May Reflect a Propensity for Bad Habits

*Report new studies in Biological Psychiatry*

**Philadelphia, PA, April 10, 2014** – Two new studies published this week in *Biological Psychiatry* shed light on the propensity for habit formation in obsessive-compulsive disorder (OCD). These studies suggest that a tendency to develop habits, i.e., the compulsive component of the disorder, may be a core feature of the disorder rather than a consequence of irrational beliefs. In other words, instead of washing one's hands because of the belief that they are contaminated, some people may develop concerns about hand contamination as a consequence of a recurring urge to wash their hands.

Habits are behaviors engrained by practice that enable us to perform very complex behaviors in a nearly automatic way, such as swinging a golf club or performing a piano sonata. Habits do not seem to be fully conscious goal-directed behaviors in that when one thinks about the details of the complex behavior, for example when trying to improve a golf swing, it often interferes with the expression of the habit.

Habits also appear to be defining characteristics of psychiatric disorders with prominent behavioral components, such as alcoholism, drug addiction, pathological gambling, and eating disorders. These new studies support the view that habit formation is also an important component of OCD.

Both studies were conducted by researchers at the University of Cambridge who compared habits and goal-directed behaviors in a group of people diagnosed with OCD and a matched group of healthy people. They found that the group with OCD had a greater tendency to develop avoidance habits and also displayed impairments of their goal-directed decision making.

"Habit formation is appearing to be a critical component of an increasing number of illnesses including eating disorders, addictions, and now OCD," commented Dr. John Krystal, Editor of *Biological Psychiatry*. "For all of these conditions, we need to better understand the biology of habit formation to rationally develop new and more effective treatments."

"The bigger picture from these studies is that we have identified a model of compulsivity, which may extend beyond OCD and prove to be a good model of how people lose control over their own behavior more generally, and in other disorders of compulsivity, like addiction and some eating disorders," said Dr. Claire Gillan, corresponding author on both projects.

"Importantly, this model was derived from earlier work in both animals and humans which characterized dissociable neural systems supporting the balance between purposeful action and more automatic habits. The time is right for psychiatry to start moving away from diagnostic labels and instead focus of biological traits that transcend the current definitions of discrete disorders."

It is hoped that a greater level of biological precision will allow for the development of targeted treatments for individuals, and hopefully allow movement away from a one-size-fits-all approach to treatment. These studies are a step in this direction.

The articles are "Enhanced Avoidance Habits in Obsessive-Compulsive Disorder" by Claire M. Gillan, Sharon Morein-Zamir, Gonzalo P. Urcelay, Akeem Sule, Valerie Voon, Annemieke M. Apergis-Schoute, Naomi A. Fineberg, Barbara J. Sahakian, and Trevor W. Robbins (DOI: 10.1016/j.biopsych.2013.02.002) and "Counterfactual Processing of Economic Action-Outcome Alternatives in Obsessive-Compulsive Disorder: Further Evidence of Impaired Goal-Directed Behavior" by Claire M. Gillan, Sharon Morein-Zamir, Muzaffer Kaser, Naomi A. Fineberg, Akeem Sule, Barbara J. Sahakian, Rudolf N. Cardinal, and Trevor W. Robbins (DOI: 10.1016/j.biopsych.2013.01.018). The articles appear in *Biological Psychiatry*, Volume 75, Issue 8 (April 15, 2014), published by Elsevier.

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### Notes for editors

Full text of the articles is available to credentialed journalists upon request; contact Rhiannon Bugno at +1 214 648 0880 or [Biol.Psych@utsouthwestern.edu](mailto:Biol.Psych@utsouthwestern.edu). Journalists wishing to interview the authors may contact Claire Gillan at +44 (0) 1223 76428 or [claire.gillan@gmail.com](mailto:claire.gillan@gmail.com).

The authors' affiliations, and disclosures of financial and conflicts of interests are available in the article.

John H. Krystal, M.D., is Chairman of the Department of Psychiatry at the Yale University School of Medicine, Chief of Psychiatry at Yale-New Haven Hospital, and a research psychiatrist at the VA Connecticut Healthcare System. His disclosures of financial and conflicts of interests are available [here](#).

### About *Biological Psychiatry*

*Biological Psychiatry* is the official journal of the [Society of Biological Psychiatry](#), whose purpose is to promote excellence in scientific research and education in fields that investigate the nature, causes, mechanisms and treatments of disorders of thought, emotion, or behavior. In accord with this mission, this peer-reviewed, rapid-publication, international journal publishes both basic and clinical contributions from all disciplines and research areas relevant to the pathophysiology and treatment of major psychiatric disorders.

The journal publishes novel results of original research which represent an important new lead or significant impact on the field, particularly those addressing genetic and environmental risk factors, neural circuitry and neurochemistry, and important new therapeutic approaches. Reviews and commentaries that focus on topics of current research and interest are also encouraged.

*Biological Psychiatry* is one of the most selective and highly cited journals in the field of psychiatric neuroscience. It is ranked 4<sup>th</sup> out of 135 Psychiatry titles and 13<sup>th</sup> out of 251 Neurosciences titles in the Journal Citations Reports® published by Thomson Reuters. The 2012 Impact Factor score for *Biological Psychiatry* is 9.247.

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### Media contact

Rhiannon Bugno  
Editorial Office  
+1 214 648 0880

[Biol.Psych@utsouthwestern.edu](mailto:Biol.Psych@utsouthwestern.edu)