Collecting Gone Amuck

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When my uncle died he had multiple new items (for example, billfolds) still in unopened boxes stored in his house that was already short for space. They had no apparent purpose because he could never use these items due to his advanced age. Similarly, a rich neighbor also gathered package upon package of new shirts and simply kept them, never to be worn.

These scenarios seem counterintuitive. Why would someone do these things?

A paper by Steven W. Anderson and his colleagues entitled "A neural basis for collecting behavior in humans" throws light on collecting gone amuck similar to that described above. Though the group studied patients with brain lesions, the findings can be extrapolated into a provisional hypothesis for collecting behavior in normal humans. This paper is extremely important because it is the first of its kind.

Anderson, et al studied 87 subjects with brain lesions. Thirteen exhibited abnormal collecting behavior that was severe and associated with troublesome accumulative of useless objects. In the study, the collecting set of subjects exhibited this behavior only after the onset of their lesions, not before. A close relative, usually a spouse, was the source of this information. In order to qualify as a collecting subject, the individual had to accumulate objects of little value to excess in such a way that the collecting interfered with daily function. For example:

A 70-year-old, right-handed, retired bank clerk with 13 years of education underwent resection of an orbitofrontal meningioma. Her husband noted that all of her life she had been reluctant to throw away items with potential value, but that this characteristic was not so prominent as to cause any problems. However, following surgery, she began to collect large quantities of a wide array of items, to the extent that serious space problems arose in their home. She began ordering large quantities of unneeded items, particularly clothes, from mail-order catalogues, most of which her husband would intercept and return.
Patient 8 from "A neural basis for collecting behavior in humans" by Steven W. Anderson, Hanna Damasio, and Antonio R. Damasio.

When the collecting set was compared to the non-collecting set, they did not differ in age or standardized neuropsychological tests designed to determine intellectual abilities. Additionally, the two groups were alike when examined for executive function skills and anterograde memory. The difference between the two sets of subjects was that the collecting group all had damage to a specific part of the frontal lobe called the mesial frontal region. The non-collecting group did not. The mesial frontal area is located in the executive frontal lobe of the brain medially.

The authors interpreted the presence of this specific lesion in the collecting group to mean that a normal overriding inhibitory system was disrupted by the frontal mesial lesion. Without its influence, the drive to collect objects was free to operate without its usual restraints. Then, a disinhibition occurred, which resulted in collecting behavior gone amuck.

A provisional hypothesis for collecting behavior in humans was formulated based on the findings in the study. The authors postulated that in persons without brain damage, deep brain structures (limbic subcortical and mesolimbic cortical) initiates the drive to collect. It then is modulated by a prefrontal neural system including mesial sectors. Without the tempering influence from the frontal mesial area, collecting behavior could go unbridled.

These findings have clinical implications when collecting goes awry. Additionally, they could have repercussions for high net worth individuals who buy valuable pieces with which to diversify their portfolios. These people rely on good decision-making in order to select pieces that they not only like, but have some chance of appreciation. If the inhibitory pathway for this process is weak, the investor-collector would be less able to reject pieces that are not suitable or will accrue in value. Then he might buy the wrong piece or choose too many identical items or another variation on the inability to control a collecting impulse. This, in turn, could lead to disruption of an otherwise well balanced portfolio and have negative financial consequences.

In a Nutshell

Disruption of the pathway between deep brain structures (which initiate the drive to collect) and the inhibitory frontal mesial lobes led to abnormal collecting behavior in subjects studied by Anderson, et al. In other words, inhibitory control malfunctioned. These findings could have negative repercussions for high net worth individuals who buy valuable collectibles with which to diversify their portfolios, should a similar scenario occur to them.