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Viewing the Toxic Wallpaper as an Additional Cause of Insanity

Many critics look at the short story "The Yellow Wall-Paper" by Charlotte Perkins Gilman as a channel through which Ms. Gilman can raise her literary voice about the way women's mental health was treated in the late 1800s. Critics such as Denise D. Knight would say that this short story specifically uses the narrator's gradually escalating mental insanity to demonstrate that the rest cure of hysteria would often drive women of the late nineteenth into a deeper form of mental illness than what they originally were diagnosed with (Wolter 205), and Ms. Gilman would agree with this view, saying "It was not intended to drive people crazy, but to save people from being driven crazy..." (Gilman 484). However, let this paper challenge you to look at the story with a different perspective. While other critics blame the design of the wallpaper in addition to the terrible women's mental healthcare methods and procedures for driving the narrator to such extreme delirium, and with good cause, there could be an additional cause of the narrator's madness: the wallpaper itself.

With astonishment the narrator describes the house that she, her husband John, and her sister-in-law Jennie are living in over the summer as "a colonial mansion" and "a hereditary estate" (Gilman 486). A house as noble as a mansion would have once belonged to a wealthy family (Wolter 199). At the height of this house's existence as a colonial mansion, the wealthy family would have probably taken great lengths to keep the house looking sharp, as the design of and decorations within the house would have mirrored their status in society. The wallpaper especially would reflect their status because as the trend of wallpaper design changed so often,

and wallpaper before the 1850's were handcrafted causing the price to escalate greatly, only the truly wealthy could afford to change the wallpaper with the trends. After the Industrial Revolution, the price of wallpaper went down, but the most popular wallpaper designer of the time, William Morris, still handcrafted his creations (Vernon-Yates 3).

The narrator first describes wallpaper in the room with disgust as "one of those sprawling flamboyant patterns committing every artistic sin" (Gilman 487). This description, although seemingly comical, describes what stood as the fashionable choice of wallpaper in the mid-1800s. William Morris' creations would have been filled with interlacing trellis designs that would seemingly have no beginning or end (Wolter 197). The design could work as an accent design in small amounts, but because the wallpaper in the nursery where the narrator stays covers the walls from floor to ceiling, it would be unnerving to any person. The narrator goes on to describe the wallpaper saying that it could "confuse the eye in the following, pronounced enough to constantly irritate and provoke study, and when you follow the lame uncertain curves for a little distance, they suddenly commit suicide" (Gilman 487). This description is also true of a description of the designs of William Morris. He specifically made his designs so that the seams and repeats in the wallpaper would have been almost unnoticeable, but only just enough to keep the admirers intrigued (Wolter 197).

The original designs of William Morris would have been green in order to make the trellis design look more natural. The wallpaper in the nursery is yellow, however: "The color is repellent, almost revolting; a smoldering unclean yellow, strangely faded by the slow-turning sunlight" (Gilman 487). If the wallpaper had been put up in the mid-1850s, at the time of the narrator's stay the wallpaper would be roughly thirty to forty years old. Wallpaper and dyes wouldn't have been acid-free at the time of installation, and after the 1850s homeowners would

have varnish applied to keep the pigments from running should they get wet. Over time, the varnish discolors, and turns a dirty yellow color (Vernon-Yates 3). This would describe the sickly yellow coloring of the wallpaper in the nursery.

If they had still owned the house, the wealthy owners probably would have shared the narrator's opinion to take the wallpaper down. It is quite noticeable that the original wealthy owners of the house who put up the wallpaper in the nursery have not owned the house for a while. Had the owners recently owned the house, they likely would have replaced the wallpaper in the nursery with a design with geometric shapes, as that was the fashion of nursery wallpaper in the late nineteenth century when our narrator moves in. Even more likely, though, the wealthy owners, had they owned the house recently, would have taken down the wallpaper altogether. Decorators and tastemakers began to opt for other wall decorating options by the 1890s because wallpapers were hard to clean, and therefore were considered unsanitary (Vernon-Yates 3).

Another reason for the decline in wallpaper is that some wallpapers were found to be toxic (Haslam 76). In 1778 a Swedish chemist, Karl Scheele, discovered a way to create a green pigment that was inexpensive to manufacture. The color was a bright green and was used for many home goods, especially wallpaper. This green pigment, however, consists of copper arsenite, which can lead to arsenic poisoning (Haslam 76). Italian physician Barolomeo Gosio found in 1891 that the poisoning was caused by an arsenic gas with a garlic-like odor, and in 1933 British professor Frederick Challenger discovered with his students the scientific composition of this gas was trimethylarsine. Gosio also found that this arsenic gas could travel through several layers of wallpaper on top of the toxic paper because of a fungi that would grow on the paste over time. (Haslam 79).

It is also interesting to note that scientific studies of William Morris' wallpaper found arsenic, specifically in his designs manufactured from 1864 to 1875. Because many of his designs featured items found in nature such as vines, leaves, birds, and flowers, green pigment was often used in the wallpaper he manufactured. His father's mining company, Devon Great Consols, funded his wallpaper design company, and just so happened to have produced the most arsenic of any mining company of the time (Haslam 77). Because of this, to find arsenic in William Moris' wallpapers is hardly surprising.

With all of this information on hand, one could postulate that the wallpaper the narrator describes in "The Yellow Wall-Paper" could have been designed and manufactured by William Moris' company. The design of the wallpaper along with the approximate timeline of the installation of the wallpaper line up with the height of William Moris' popularity, and the varnish over the wallpaper and the predicted time passed since installation explains the odd discoloration of the once green design. So, assuming that the wallpaper in the nursery is a William Moris design, the wallpaper would also be toxic because of the arsenic in the original green pigments, and because the varnish is not thick or dense enough to stop the arsenic gas to be secreted, the wallpaper's toxicity can be responsible for the narrator's madness.

Using this theory of the toxic wallpaper, it must be stated that the wallpaper's toxicity is not the primary cause of the illness for which the narrator was prescribed the rest cure, whether truly present or misdiagnosed; the toxic wallpaper can only answer for the deepening insanity that ensues after the treatment begins. Some critics may additionally argue that John knows about the toxicity of the wallpaper and intentionally chooses for his wife to stay in the toxic room (Wolter 198), however this paper will neither agree nor disagree with that theory.

Instead, consider only the argument that some possible indicators of arsenic poisoning coincide with possible symptoms of the narrator's diagnosis of temporary nervous depression or hysteria. Ann E. Berthoff in her article "Mad Doctors as Scientists" describes the symptoms of hysteria: "Patients suffered amnesia or terror or listlessness, together with, perhaps, vomiting, diarrhea, or loss of feeling in the limbs" (145). These align with the symptoms reported by subjects who were a part of a 2014 study of copper-mill workers' neurological and neurophysiological examinations after repeated exposure to high levels of arsenic gas at work. A number of patients in the study reported headaches, emotional irritability (irritability, anxiety and fatigue), sleep disorders, and excessive somnolence or listlessness. Other symptoms present included fatigue of the lower extremities and vertigo, although these were only present in workers with workers with the most exposure to the arsenic gas over time (Sinczuk-Walczak et al. 1017-1018).

The narrator notes some of these symptoms throughout the story, saying she becomes "unreasonably angry with John sometimes" (Gilman 487), and she often states how anxious, tired, and weak she feels, which aligns with emotional irritability. She also describes times when she is unable to sleep despite her fatigue (Gilman 491), and she tells about how often she lies down and feels listless (Gilman 490). Also, although this is only a theory, one could argue that the narrator begins "creeping", or crawling, at the end of the story because of a loss of feeling in her lower extremities.

Arsenic gas could also explain her final bout of insanity at the end of the story. When the narrator shuts herself into the room and does not allow for an incoming flow of fresh air, a large amount of arsenic gas can begin to build up in the nursery, which would lead to a decrease of oxygen in the room over time. Additionally, when she begins to peel the wallpaper off of the

walls, more arsenic gas and powder would escape into the air. A lack of oxygen could result in hallucinations, such as the hallucinations of the women moving through the wallpaper design. Another possible consequence of this lack of oxygen is vertigo, light headedness, and a loss of balance which would describe her need to crawl with a shoulder against the wall to keep her balance.

At the very end of the story, John finds the key and unlocks the door to the room. Upon opening the door, he exclaims and faints (Gilman 497). Arsenic is denser than oxygen, so because molecule in a high pressure space naturally move to areas with lower air pressure, as John opens the door, the buildup of arsenic gas would move naturally toward the hallway where there is lower air pressure. When John exclaims he uses up the last of the oxygen in his lungs, and happens to breathe in just as the dense arsenic gas is moving to the low air pressure area. So, when he breathes in, he takes in mostly a high amount of arsenic gas, and this combined with his shock at the situation could cause him to pass out as he does in the story.

Now, the arsenic gas may not be the only cause of the narrator's increasing madness throughout the story, but the toxic amount of arsenic in the room could certainly be a contributing factor. The descriptions of the wallpaper that the narrator provides throughout the story match with the design, approximate date, and original color of the wallpaper designed by William Moris which were manufactured using dyes made with copper arsenic. The color change between the original Moris and Co. wallpaper and the yellow one the narrator describes could result from a layer of varnish that has yellowed since application. The arsenic gas created by this wallpaper aligns with symptoms of hysteria, so the narrator's family would have a difficult time recognizing the toxicity of the wallpaper, especially because John is often gone, and so he has less symptoms, if any. In conclusion, the design of the wallpaper in addition to the terrible

women's mental healthcare methods and procedures may be to blame for driving the narrator to such extreme delirium, the toxicity of the wallpaper itself is plausible as additional cause.

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