

The Genain Quadruplets

Sometime in the early 1930s, quadruplet girls were born to Mr. and Mrs. Henry Genain, the product of a marriage occasioned by Mr. Genain's threatening to kill the reluctant Mrs. Genain unless she consented to it. Except for their low birth weights, ranging from Nora's 4 lb, 8 oz., to Hester's 3 lb (Iris and Myra being in-between), the girls appeared to be reasonably normal babies, albeit premature. Hester had to be fitted with a truss (an abdominal compression device) because of a hernia but was nevertheless discharged from the hospital with her sisters as basically healthy some six weeks after the birth. Each of these genetically identical girls was to become schizophrenic before the age of 25, an outcome that would be expected to occur by chance only once in approximately 1.5 billion births. What we know of this family is the product of an intensive and lengthy on-site study carried out by staff of the National Institute of Mental Health (Rosenthal, 1963) and provides a window on the interacting influences operating in the schizophrenias.

Notwithstanding their genetic identity and physical similarity, the girls were treated as though they were two sets of twins—a superior and talented set consisting of Nora and Myra, and an inferior, problematic set consisting of Iris and Hester. Hester—the “runt of the litter”—was regarded from an early age as oversexed. (Possibly because of irritation from her truss, Hester began to masturbate regularly by the age of three, a habit she continued for many years to the dismay of her

parents.) Complying with parental attributions, the girls did in fact pair up for purposes of mutual support and intimacy; when threatened from the outside, however, they became a true foursome. Such threats were frequent because of the girls' celebrity status, causing them to become socially isolated. This isolation was encouraged by their parents, both of whom had anxieties of their own about “the outside world.”

Mr. Genain's job was not very demanding, and he spent most of his time drinking and expressing his various fears and obsessions to his family. Prominent among these were fears that break-ins would occur at the home unless he patrolled the premises constantly with a loaded gun, and, especially as the girls developed into adolescence, that they would get into sexual trouble or be raped unless he watched over them with total dedication. He imposed extreme restrictions and surveillance on the girls until the time of their breakdowns. Beginning at an early age and persisting through early adulthood, Mr. Genain insisted on being present when his daughters dressed and undressed. He even insisted on watching them change their sanitary pads during menstruation. He was himself sexually promiscuous and was reported to have sexually molested at least two of his daughters.

Mr. Genain's preoccupation with sexuality, while extreme, was matched by that of his wife. Mrs. Genain managed to see sexuality and sexual threats in the most innocuous circumstances and yet seemingly ignored real sexual



activity occurring in the home. When the girls complained to her about Mr. Genain's sexual approaches, she rationalized that Mr. Genain was merely testing their virtue; if they objected to his advances, then clearly all was well. Hester, the chronic masturbator, was a particular thorn in her side—all the more so when she discovered that, at about age 12, Hester had introduced Iris to the practice of mutual masturbation, which Iris found pleasing. Apparently unable to think of any more appropriate response to this dilemma, the parents—on the questionable advice of a physician—forced the two girls to submit to clitoral circumcisions, a drastic measure but one that nevertheless failed to alter the offending behavior.

Hester had her first breakdown while still in high school, at age 18. Nora's breakdown followed, at age 20. Iris "just went to pieces" at age 22. Myra, who had maintained the most independence from her disturbed parents, did not show signs of schizophrenia until age 24. It may be significant that in the cases of Nora, Iris, and Myra, deterioration began shortly after an incident in which a man had made rather insistent "improper advances." The initial clinical pictures displayed by the young women were in most respects quite similar, with undifferentiated and changing features and an abundance of "positive" signs.

Despite these early clinical similarities, the courses and outcomes of their disorders differed markedly and, to some extent, in ways that might have been predicted from manifestations that appeared quite early. The quads' outcomes show a corresponding pattern. At the time of Rosenthal's 1963 report, Myra was working steadily, married, and doing well. Nora was making a marginal adjustment outside the hospital. Iris was still fluctuating between periods of severe disturbance and relative lucidity in which she could manage brief stays outside of the hospital. Hester remained continuously hospitalized in a condition of severe psychosis and was considered essentially a "hopeless case."

It is a tribute to the scientific diligence of the NIMH staff and to David Rosenthal, who maintained both a human and a scientific interest in this unfortunate family, that we had a follow-up report some 20 years after the original one (DeLisi et al., 1984; Mirsky et al., 1984; Sargent, 1982a). In general, the relative adjustment of the sisters, then in their 50s, remained

in 1982 as it had been in the 1960s. Myra continued to do well and had had two children in the interim. The other three women were living at home with their mother, with Nora continuing to show a higher level of functioning than Iris or Hester. All of the quads were on continuous medication, and even the beleaguered Hester appeared to have overcome to an extent her originally dismal prognosis.

It is of considerable interest that newly developed techniques of neurological assessment showed that Nora had impairments of the central nervous system similar to those of Hester, and yet her outcome seemed far better than that of Hester or even Iris. It is possible that the original pairing of Iris with Hester was inappropriate (at least in the limited sense implied here) and destructive of Iris's development. In any event, we see that the quads, despite their identical heredity, array themselves along a considerable range of the possible outcomes associated with schizophrenic breakdown.

We have here, then, four genetically identical women, all of whom experienced schizophrenic disorders. The disorders, however, have been different in severity, chronicity, and eventual outcome. Obviously these differences must be ascribed to differences in the environments the quads experienced, including their intrauterine environments, which presumably contributed to their modest variations detectable at birth. Clearly Hester, possibly most compromised biologically and in relative parental disfavor from the beginning, faced the harshest environmental conditions, followed closely by her "twin," Iris. The outcome for these women has been grim. Myra was the most favored youngster and the one who experienced the least objectionable parental attention, partly owing to a greater independence and assertiveness than her sisters displayed. Nora was a close second in this respect but had the misfortune of being her incestuous father's "favorite." In the more recent assessments, Nora was also shown to have a compromised central nervous system (specifically, an imbalance of metabolic rates in different brain areas) comparable to that of Hester. Though Nora has not done as well as Myra, she has emerged as clearly superior in functioning to the other two sisters. We see here the considerable power of environmental forces in determining personal destiny, even in schizophrenia. ■