Anorexia Nervosa in a Pair of Identical Twins

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Since Gull's (1868) and Lasègue's (1873) classic descriptions of anorexia nervosa over 100 years ago, numerous articles on the syndrome have appeared in the medical and psychiatric literature; there are, however, few studies of anorexia nervosa occurring simultaneously in monozygotic twins. The purpose of this article is to present such a report, in the hope that it will add to our understanding of this singular disorder, and at the same time perhaps contribute another facet to our views concerning pathological ego development in twins.

In a recent communication, Halmi and Brodland (1973) presented two cases of anorexia in monozygotic twins; the syndrome was concordant in one set and discordant in the other. These authors briefly reviewed the literature pertaining to anorexia nervosa occurring in twins, as had previously been done by Theander (1970), who himself presented one case occurring among the group of 96 cases of anorexia nervosa seen in the psychiatric service at Lund, Sweden. Theander mentions three others (among which is Meyer's [1961] discussed below). Halmi and Brodland's twins who were concordant for anorexia nervosa (as opposed to the set who were discordant), as well as Theander's twins, were not subjected to biological studies so that the monozygocity of their patients could be supported.

Meyer (1961) reported on a pair of twins concordant for anorexia nervosa. The two girls developed the same symptoms simultaneously, including the onset of amenorrhea and its remission. One of these twins subsequently married, emigrated, and is presumed to be well. The other developed chronic, strange eating rituals and gave evidence of severe cognitive impairment, consistent
with a diagnosis of schizophrenia. Meyer assumed the twins to be monozygotic on the basis of their very strong resemblance to each other.¹

The twins we shall describe did not undergo sufficient biological investigation to support a diagnosis of monozygocity. The parents reported that the obstetrician who delivered their daughters asserted that they were identical; at birth this can only be done by the presence of a single placenta, two amnions, and a single chorion; in addition, the twins showed a marked and continued resemblance in most physical traits. There is no doubt that the absence of a rigorous biological substantiation of monozygocity (following Smith and Penrose's [1955] criteria) weakens the significance of any report that concerns genetic variables. (To our knowledge no study of concordance of anorexia nervosa, in presumably identical twins, includes such a survey.) However, we believe this case is unique in its particular combination of the following aspects: the simultaneity of onset; the family contacts obtained by the authors; the family psychodynamics, as elucidated from interviews with the patients as well as their family; and the details of the two-year follow-up.

We shall forego any attempt to review the literature of this syndrome, since that has already been done by competent authors (Bliss and Branch, 1960; Kaufman and Heiman, 1964; Jensen, 1968; Shafii et al., 1975; Bruch, 1965; Waller et al., 1940). Nor shall we review reports dealing with twins discordant for anorexia nervosa, which are not relevant to this communication. In the same issue Shafii et al. review the literature pertaining to anorexia nervosa in siblings generally, and propose the concept of an anorexia à deux.

**The Case of Susan and Carol**

About 18 months prior to the referral of these patients, Susan and her identical twin sister, Carol (younger by 6 minutes), then 11½ years of age, decided to go on a weight-reducing diet. Susan then weighed 135 lbs. and was 5'5" tall. Carol weighed 120 lbs. and also measured 5'5". The girls felt they were overweight and were tired of being told by their father that they were "fat" and like "two walking garbage cans." After a particularly bitter fight with him, Susan vowed to her mother that she would "never eat again; I'm going on a diet and I'll get so thin he won't recognize me."

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Since the age of 7, the girls had thought of becoming dieticians, and had since then shown a particular interest in food and nutrition; they now assiduously followed diet manuals and counted every calorie they consumed. After 11 months, Susan weighed 115 lbs. and Carol weighed about 105 lbs. An older sister was then about six months pregnant, and Susan expressed her concern over her sister’s health and worried if she would “stay fat forever.”

The father began to abuse the girls verbally and physically for their refusal to eat. Carol was less affected by his outbursts and seemed better able to escape his blows; she lost relatively less weight during this period than did Susan.

The girls continued to lose weight, and their father kept up a constant demand that they eat. When they did consume any food, they would force themselves to vomit it up. The family physician prescribed tranquilizers for them and a “vacation in Florida”; neither remedy stopped the loss of weight or lessened the girls’ increasingly saddened and anxious moods.

In the fall of the year described, the twins started junior high school. Susan was too weak to continue after one week, weighing at this time 85 lbs. Carol weighed about 5 lbs. more, and, although weak, was able to continue in school. The family physician had Susan admitted to a general hospital where she was treated with Vitamin B₁₂ and supplementary feedings. She later told us that she either made herself regurgitate the food, or hid it in her room. She remained in the hospital 2 weeks, losing an additional 10 lbs.; during this stay she ran away on two occasions. Later, she admitted that she had felt intense hunger during this time but kept herself from eating for “fear of getting fat.” After her discharge from the hospital, the family physician decided that, after a few days at home, she be transferred to a psychiatric service. During this interval, her father flew into a rage because both girls still refused to eat, and he kicked and pummeled Susan. When the mother interfered, he threw her bodily across the room. He then placed a pillow over Susan’s face and attempted to suffocate her, but Mrs. L. was able to pull him away. Susan was then admitted to a municipal psychiatric ward where she remained for 5 weeks; there she was treated with supportive psychotherapy and occupational therapy. She gained 16 pounds during this stay.

During these previous months, Carol’s weight had gone down to 85 pounds, but returned to 90 lbs. when Susan entered the hospital. Her weight loss was generally more gradual than Susan’s and seemed to have less effect on her functioning. She was able to con-
tinue in school, but was frequently absent because of bouts of diar­
thea, upper respiratory infections, and her unhappiness, which she
attributed to her sister’s absence.

After the 5 weeks on the psychiatric ward, one of us (J.K.), in his
capacity as Attending Physician at both hospitals, decided to
transfer Susan to the psychiatric inpatient service at Montefiore
Hospital and Medical Center for more intensive psychotherapy,
and to consolidate the gains already made; it was at this point that
we had our initial contact with her.

Past History

The birth of the twins was reported to have been normal. Susan,
the firstborn, weighed 5 lbs. 6 oz. at birth, and spent the first 2
weeks in an isolette. The developmental history of both girls was
reported as unremarkable by their mother who, however, found
the first 3 months with them extremely chaotic; she was unable to
synchronize their feedings and their periods of sleep; she felt ex­
husted and helpless. After about 4 months their schedules were
better organized.

Little specific information about the early years of the twins was
available from the parents. They described those years generally as
having been unexceptional. They had noticed that Susan seemed
to be somewhat the more dominant of the two while they were at
home, but outside of the house, Carol was the leader. Susan tended
to be more anxious than Carol under most circumstances. The girls
had always been closer to each other than to any other member of
the family or friend. They themselves admitted to having felt op­
pressed by constantly being the “center of attention,” by being
pressured by their father to dress and act alike, and they were
angered by always being compared with one another.

The family lived in a small apartment with one bedroom which
was occupied by the twins, while the parents slept in the living
room. The father was described by the mother as “constantly”
wanting to have sexual relations: he would chase the children to
bed under the pretext that he and “Mommy were going to watch
television.” The parents fought frequently, and on one occasion, to
which the girls referred as “the nightmare night,” their father
threw his wife on the bed and attempted to strangle her, awaken­
ing the children by the noise; they were then 10 years old. From
that day on, Susan could not allow herself to fall asleep unless she
had already seen her mother safely in her bed. It was about this
time that the twins began to isolate themselves from other children
in the neighborhood and at school; increasingly, their father be-
came the "pal" of these children and would gather them up for rides to the beach. It was also at this time that the twins became aware that their father was having affairs with women in the neighborhood and that the neighbors gossiped about him. They then understood that most of the fights between the parents were about Mr. L.'s liaisons with other women. The children admitted their embarrassment in front of friends and neighbors, and for this reason tended to stay aloof. The father, who had always been a violent man, began at this time to lose his hearing, and became increasingly more savage, not only toward the mother, but toward the girls, criticizing their nasal speech, their dress, their "badness," and so on.

Mr. L., an auto mechanic, was born in Louisiana of Syrian and Lebanese parents. He seemed to be of average intelligence, but was an angry man, suffused with pity for himself and his hard life. Mrs. Li's parents came from Italy, and she was born in New York City. Although 10 years older than her husband, she did not appear to be so. She had probably been a very attractive woman when younger, but when we first saw her, she appeared faded and defeated. She admitted to feeling totally intimidated by her husband. The twins' older sister, 28, was an intelligent, lively young woman who had become a physical therapist and had worked until the birth of her baby. She seemed to have some insight into the family dynamics and had coped by admittedly isolating herself from them.

When we first saw Susan, she was a thin, awkward, tense 13-year-old, with an embarrassed, fixed smile on her face. She was moderately depressed and anxious; her thoughts were generally unremarkable, but her speech was limited to answering questions. Her contact with other people was only fair. Intellectually, she was about average, and she seemed at times somewhat concrete in proverb abstraction and similarities.

A Wechsler Adult Intelligence Scale revealed a Full-Scale IQ of 96 (Verbal 106, Performance 85); information and vocabulary levels were lower than other subtests, suggesting some repressive inhibition in her capacity to know and learn about the world around her; her intellectual functions were often erratic, ranging from childlike to more mature responses. The evidence of regression and poor reality testing did not appear to be chronic, but seemed to be tripped off by confrontation with specific material. She was also somewhat inhibited motorically.

Her projective record reflected attempts to control her sexual and aggressive impulses by avoiding arousal. The test result
showed much more turmoil and panic than her rather stereotyped behavior indicated. Data indicated that she used her GI tract as an aggressive modality in dealing with people about her. While she never directly linked the issue of eating with sexuality, there was clear evidence of profound sexual difficulties: she seemed preoccupied with sexual issues to the point at which even neutral materials took on sexual meanings for her. Her perception of, and her relationship to, males seemed to be strongly phobic; while femininity and attractiveness were both positively perceived and longed for, they carried with them the potential for being attacked and destroyed by the sexual male. In the testing process, much of her fearfulness seemed to arise in the face of sexual situations.

The onset of puberty and the menarche, which had occurred during the previous year, seemed to carry for her the danger of destruction and annihilation, and she appeared to handle this fear through fatigue and listlessness, which served to avoid sexual stimulation. Despite the difficulties described, and the inadequacies and self-destructive qualities of her current management of conflict, nothing suggested the development of a psychotic breakdown. Although there were distortions of reality, there was no evidence of any significant loss of reality testing. The overall diagnostic impression from the projective record was that of adolescent turmoil in a girl with a hysterical character disorder.

Clinical Course and Follow-up

Susan remained on an open ward for about 3 weeks, during which time she was treated with short psychotherapeutic sessions three times a week, and with milieu and occupational therapy.

The therapeutic aim, in the first instance, was to increase Susan’s weight to a level compatible with her biological needs. At the time of her admission to the ward, she was informed of our intention not to allow her health to become jeopardized. She was given the choice either of nasogastric tube and intravenous feedings, or of eating in the dining area with other patients. When she elected the latter course, efforts were made to allow her to have the maximum choice in her menu. She discovered some pleasure in having snacks at odd hours, and these were encouraged. Whenever possible, the psychiatric nurse who had been assigned to Susan ate at her table; this nurse was a personable young woman, and very quickly Susan transferred to her many of the positive feelings she had for her older sister. Not only did she enjoy pleasing the nurse, through her attempts to eat substantial meals, but seemed to emulate her reasonable eating habits.
The therapeutic milieu was involved in Susan's treatment to a significant extent. She was at all times regarded by the staff as a worthy person and as a distinct individual. Her comments indicating identification with her twin were dealt with by stressing her uniqueness and potential independence.

Psychotherapeutic sessions proved to be the most disappointing aspect of treatment because of Susan's intense fear of a possible retaliation from her father if she confided her thoughts about him to her therapist. This issue of trust remained an important stumbling block in the development of a strong therapeutic alliance; that the therapist was male undoubtedly constituted a further impediment, since the patient generally was much more relaxed and trusting with women; with a longer period of treatment, it is possible she would have grown less suspicious of men.

A 50-minute hour, three times a week, proved intolerable, and the session was reduced to 30 minutes by the patient's choice. Her major resistances were silence and attempts to socialize the hour; this socialization was allowed, to some extent, and led to the development of a modicum of trust and moderately positive feelings toward her therapist. This in turn permitted him to make some relatively nonprovocative confrontations, to which, more often than not, Susan did not respond. These dealt with her low self-esteem, her sense of emptiness when separated from her sister, her burgeoning sexual feelings, and her rage and fear of her father.

Our attempts to continue outpatient treatment with Susan and to institute it with her twin sister, as well as with the family, were all frustrated for reasons that will be discussed. In assessing the improvement made by the patient, we feel it would be presumptuous to proportion credit among the specific therapeutic modalities actually used. However, our impression was that the maternal, uncoerced attitude of everyone who dealt with Susan (not the least of whom were the motherly patients who "adopted" her) was perhaps the most powerful aspect of our efforts. Susan's paralyzing fears were identified as something worthy of exploration, and at the same time we sought to show her that there were other ways to deal with them than through starving herself.

Despite her dread of her father, she wanted very much to visit her family. Weekend visits were allowed, and they went well, with Mr. L. controlling his temper in an attempt to show us that everything at home was fine.

A family meeting was held by the authors with the twins, their parents, the oldest sister and her baby present. The most obvious element to emerge was their determination to guard closely a "fam-
ily secret.” From suggestive clues, we hypothesized that this related to sexual contacts the father had been having with neighborhood children; it appeared to be mainly this factor that led to their reluctance to cooperate in therapy. It was also striking that all of the family members harbored an intense fear of and hostility toward Mr. L. Later interviews with Mrs. L. supported our belief of Mr. L.'s extramarital sexual behavior and explained the attitude of the others toward him. Numerous attempts were made to interview Carol, to have her tested psychologically, and to have her undergo biological tests to confirm the identicality of the twinship, but she refused, and was supported in her refusal by her parents.

When Susan’s weight was close to 100 lbs., she was discharged and was seen weekly for the next 5 weeks, at the end of which she announced that she no longer felt the need for coming. Although she said that it was her mother who objected to her visits, it was soon apparent that the father was putting pressure on Mrs. L. to have Susan’s therapy terminated. We told her that she could return and see us any time she desired.

Eighteen months later, Mrs. L. requested an appointment for Susan. When we saw her, she was scarcely recognizable. She had grown into a tall, buxom, somewhat obese young woman, now 15, but she could easily pass for 19. She was garishly made up, wearing a high, black wig, tight-fitting black sweater and slacks, and large pieces of costume jewelry. She was very anxious and immediately revealed that she had come because she had been having strong homosexual desires. Both she and Carol had left school in order to spend the day with a group of male and female homosexual friends. Susan was frightened of an impending homosexual liaison which she felt powerless to prevent. She was attempting to ward this off by dating a man who she knew was himself a homosexual.

Carol apparently had no strong homosexual interests, but seemed unable to make dates with boys. When seen on a subsequent visit, her transformation was similar to her sister’s, except that her wig was platinum-colored. Both girls complained of feeling miserable because they were ostracized both in school and in their neighborhood, and because they were taunted and called “prostitutes.” Susan asked for psychiatric help and was willing to go away to a residential treatment center if a place for her could be found. Carol did not believe that she herself needed or wanted any help. The issue was resolved by Mr. L., who refused to permit his daughter to leave home, and Mrs. L. declined to bring the matter to court.

Several months later, the girls, who had now turned 16, re-
turned, requesting medical notes excusing them from school, so that they might attend a beauty culture school. They were still living at home, but planned on leaving when they could afford to do so.

**DISCUSSION**

The preceding presentation of the simultaneous development of anorexia nervosa in a pair of twins demonstrates a number of the psychodynamic characteristics described by previous authors, in particular by Waller et al. (1940). In the cases they reviewed, these authors noted the recurrence of psychological factors [having] a certain specific constellation centering around the symbolization of pregnancy fantasies involving the gastrointestinal tract” (p. 8). They noted an alternation of anorexia and bulimia (representing the opposing sides of an unconscious conflict), a symbolization of sexuality by food, intrafamilial conflict, and the precipitation of clinical anorexia nervosa at the time of puberty or early adolescence. They concurred with the findings of other authors regarding an early history of a preoccupation with food and dieting, and marked sexual stimulation, coupled with a subsequent loathing and rejection of heterosexuality.

The twins we have described were frequently aware of their parents' relatively overt sexual relations, and later became aware of their father's affairs. We believe that they were unable to resolve satisfactorily their oedipal conflicts, partly because of the de facto seductiveness of the father, and, more significantly, because they were unable to develop affectionate, nonerotic feelings for him, which they could later displace to other males.

We have little evidence to document whether their pregnancy fantasies stemmed from a deeper fantasy relating to oral impregnation. There were, however, strong suggestions in this respect, such as Susan's complaints that when she ate, she felt “as if a watermelon were growing inside my belly,” or that she felt “filled up in my belly.” She demonstrated by puffing out her abdomen, making it look like that of a woman six months pregnant. The twins' involvement with their older sister's pregnancy also revealed both their yearning for and fear of becoming pregnant. We do not believe, however, that these factors “explain” the twins' anorexia nervosa, which is undoubtedly overdetermined. For example, like Shafi et al. (1975), we too observed their use of eating and not eating as a weapon to express their rage at their father.

Gifford et al. (1970) support the ideas of Waller et al. (1940), but point out that they preceded the development of ego psychology
and so place stress on drive-related aspects of the illness, rather than on defensive and restitutive ego operations. These authors regard anorexia nervosa as a psychosomatic disorder that involves lifelong ego defects, as predisposing factors, with specific sexual and/or aggressive conflicts as precipitating ones. They found an impairment of cognitive functions resulting from the sexualization of all intake (facts and ideas). The precipitating event often seems to intensify an old oedipal conflict. In the case presented here, the precipitating event appears to have been the father's extramarital relationships.

Gifford et al. also stress factors deriving from the mother-child relationship: real or fantasied fear of separation from the mother, the mother's incorporation of the child as an extension of herself, the unconscious need of the child to restore the primitive state of (now hostile) dependence and ultimately gain ascendancy over the mother through the illness, etc. We were unable to find these dynamic patterns in the twins' relationships with the mother, other than recent fears for her life.

The authors cite Dührssen's paper of 1950, in which he described a situation of a dominant, older twin being the first to develop anorexia nervosa, thus gaining extra parental attention. The only partially repressed resentment of the younger twin toward her sister was intensified, with consequent guilt feelings and isolation; this in turn was believed to have some etiological importance for the development of anorexia nervosa in the younger twin. Again, we were unable to discern such psychodynamic patterns in our patients.

Our findings are also not congruent with Bruch's (1965, 1969) subdivision of anorexia nervosa into "primary" and "atypical" forms. Bruch (1969) states that in primary anorexia nervosa there is "phobic concern with weight, body image distortion of delusional proportions, confusion in the accuracy of perception of bodily states, denial of fatigue, insomnia, constipation and urinary retention, and other functional disturbances. [Underlying the symptomatology is] an all-pervading sense of ineffectiveness. . . . This distorted self-concept stands in striking contrast to the usual reports of the patient's apparently normal childhood that in each case was characterized by excellent performance and few, if any, difficulties" (p. 89).

Although our twins clearly demonstrated a phobic concern with weight, as well as a profoundly disturbed self-image, some of Bruch's other symptoms were not present. At the same time, we feel that these patients do not truly fall into Bruch's atypical (or
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Anorexia nervosa is a “nervous malnutrition in connection with a variety of psychiatric problems” (1969, p. 89), chiefly because of the long history of specific, intense concern with food, diet, and weight. It would seem that, as are most psychiatric disorders, anorexia nervosa is a final common pathway for a variety of psychodynamic patterns.

It is the simultaneous occurrence of the illness in twins which makes this case relatively unique. Shafii et al. (1975) suggest a syndrome of “anorexia à deux” for the two (nontwin) sisters they describe, one of whom developed anorexia exactly two years later than her sister. These authors chose the appellation à deux (following Lasègue and Falret [1877]) to describe an active patient and a receptive individual, when the latter is “subject to the influences” of the former. In the case they describe, the “active” patient was the mother, who had lifelong eating problems, and the “receptive” individuals were her daughters.

The occurrence of the syndrome at the same time in both our patients seems to relate significantly to their relationship with each other. It was mentioned that, from birth, Susan was the more active, the “natural” leader. This was generally evident from our contacts with the twins. To what degree this was due either to constitutional (intrauterine) influences, or to postnatal, environmental conditions is unknown. It is apparent that the sisters both demonstrated certain ego deficits which were present to some extent prior to the onset of clinical anorexia nervosa. In this connection they seem to have undergone the developmental difficulties that some twins are known to have incurred, and which have been elucidated by Leonard (1961). These consist of intertwin identification subsequent to visual incorporation. The twin has the usual problem of individualization and separation not only from the mother, but from the fellow twin as well. Their constant mirroring can lead to a lag, or defect, in ego identity, with a possible ensuing array of other ego deficits, not the least of which would consist of problems in object relations. Although these hurdles are generally worked through, certain factors may impede a normal development. Leonard cites the attitudes of the parents and the culture, the degree of similarity of the twins, and economic pressures as factors that influence the ultimate evolution of twins’ ego development.

Our knowledge of Susan and Carol seems to buttress the view that the parents, as well as outsiders, tended to emphasize the twins' similarities rather than their differences. We have already mentioned their striking physical resemblance. In addition, the family's low economic status obliged the girls to share the same
bedroom, and in many ways limited their opportunities for individuation from each other.

The homosexual orientation that the girls were manifesting when seen 2 years after Susan’s discharge does not seem to be casually related to the problem of anorexia; however, it would appear that the twins’ fear and hatred of men were grafted on to an underlying diffusion of gender identity, which in turn seems to be another aspect of the girls’ general ego deficiencies.

Meyer (1961), in his description of anorexia nervosa in a pair of twins, states that there are cases of anorexia nervosa in which the disease process progresses to a chaotic neurotic condition, which in turn may cause a serious arrest in personality development. In the anorexic twins he presents, this indeed occurred in the case of Klara, who ultimately showed evidence of disordered, egocentric, and concrete thinking. His data on her premorbid state preclude a hypothesis of a prepsychotic personality. In our own case, it would appear that long before anorexia nervosa manifested itself, there was evidence of some impaired ego development.

**Summary**

The case of a pair of presumably identical female twins, who simultaneously developed anorexia nervosa, is presented. It is postulated that the twins suffered early, severe, chronic traumata because of disturbed family relationships; that for the same reason they were unable to work through their twinship by developing better individuated selves; that they developed anorexia nervosa in a setting of fear and an unconscious desire of pregnancy; and that they had significant gender identity problems as part of a broader disturbance of ego development.

**References**


