

through its conical oscillation. Next, the attitude-control jets were used to reduce the "coning" until the solar panels were staying within 6° of being pointed directly at the sun. The guidance system was then switched to "solar inertial" mode, in which the panels would face permanently sunward. Part of that command also tilted Skylab down so that it was parallel to the earth and aligned with its orbital motion. The command did not specify which way it was to tilt, however, and the move ended up with the ATM to the rear. Since the ATM offers a smaller drag-producing cross-section to the rarified atmosphere than does the station's other end, the controllers on the ground ordered a 180° turn, to which Skylab responded perfectly.

Early this week the controllers were fine-tuning the space station's orientation to minimize some residual coning, in order to effectively reduce the atmospheric drag still further. Officials estimated that it will take about six weeks of radar tracking by NASA and by the North American Air Defense Command (NORAD) to confirm that the maneuver has indeed slowed Skylab's rate of descent enough to provide the hoped-for six to 12 months of extra time in orbit. Even this week, however, NASA was already feeling out members of Congress about the prospect of freeing funds to begin building the auxiliary rocket that would be shuttled up and attached to the station to kick it into a still longer lasting orbit. □

Children of gays: Sexually 'normal'

Whether or not homosexuals make inappropriate schoolteachers — as some antigay activists claim — is unresolved, but preliminary psychiatric data now indicate that as parents, gays and transsexuals do not adversely affect their own children's sexual identity.

A study of 37 children being reared by either female homosexuals or by parents who have changed sex reveals that 36 of the youngsters are heterosexually oriented—those who have reached adolescence are attracted to the opposite sex, and the younger children display behaviors that indicate they are on the road to developing "normal" sexual preferences.

Aside from their social significance, the results appear to punch some holes in psychoanalytic theory, Richard Green of the State University of New York at Stony Brook reports in the June *AMERICAN JOURNAL OF PSYCHIATRY*. "Both psychoanalytic and social reinforcement or role-modeling views would predict that having a transsexual or homosexual parent should have a striking effect on a child's sexual identity development," says Green. "Penis envy, castration fear and resolution of family romance (oedipal conflict) are pivotal for normal psycho-

sexual maturation of the child, according to psychoanalytic theory.

"Thus, a father without a penis or a mother or father with a same-sex partner preference serving as the identification object during the resolution phase of the oedipal period should profoundly influence psychosexual development," Green says. But the psychiatrist's results do not suggest such an influence. "What one can say is at this time, based on the best indicators of emerging sexual identity, psychosexual development appears to be typical in at least 36 of the 37 children described in this paper."

Green studied the children — 18 males and 19 females, ages 3 years to 20 years (mean age 11.3) — over a two-year period. Twenty-one were being reared by homosexual parents and 16 by transsexual parents; several of the children of transsexuals remembered their parent in his or her original sexual state before the transformation. The younger children were evaluated on their toy and game preferences, peer group composition (which is typically same-sex during grade school), clothing preference, roles played in fantasy games, vocational aspiration and the Draw-A-Person test (in which boys typically draw males first and girls draw females). For adolescents, information was obtained on romantic crushes, erotic fantasies and sexual behavior.

With one questionable exception, the children's responses suggested they were heterosexually inclined. None exhibited homosexual or transsexual fantasies, adolescents had romantic inclinations toward the opposite sex and young children preferred to play with same-sex playmates. Vocational choices reflected standard, if somewhat chauvinistically flavored preferences, with boys designating positions such as doctors, engineers, firemen, scientists and policemen and girls opting for nurses and teachers. Only two girls, however, chose "housewife" or "mommy" and one set her sights on "popsicle lady."

While there is no definitive explanation of the apparent normality of the group — even among older children who have been living under such circumstances for much of their lives — Green suggests outside influences may be critical. "Children do not live in a universe composed entirely of their home environment," he says. School, peer group members and their families and even much-maligned television programming expose the child to "conventional family styles and conventional patterns of... development," he says.

The psychiatrist currently is studying matched control groups of heterosexual and homosexual divorced mothers and their children, which he says will yield more detailed data. "At this stage I tentatively suggest that children being raised by transsexual and homosexual parents do not differ appreciably from children raised in more conventional family settings....," he says. □

A quasar sat unnoticed nearby

Quasars are usually considered to have cosmological connections. Most of them are extremely far away — the most distant objects known are quasars — and so they are expected to give an idea of conditions on the edge of the observable universe. Distance in space is also distance in time, and so the astrophysical phenomena that account for the quasars' appearance and their extremely large energy output for their size are widely believed to belong to an early epoch in the universe.

Now comes a nearby quasar, a very nearby quasar. It was found by Bruce Margon of the University of California at Los Angeles and is reported in the June 8 *NATURE*. Designated 0241+622 (these designations come from an object's coordinates on a sky map, in case anybody was wondering), this quasar is only 800 million light years from the earth. In 800 million years a lot has changed on the surface of the earth, but that is something less than a tenth of the distance of the most distant known quasars, which go as far as 15 billion years. The difference represents a lot of the universe's development time. The new quasar is thus in "familiar territory," Margon says.

The discovery came as Margon and his graduate student Karen B. Kwitter were trying to identify a binary star system with a source of X-rays that had been noted by a group led by Hale V. Bradt and Richard Dower of the Massachusetts Institute of Technology. X-ray sources are another topic of wide interest in astronomy these days. They are often found in binary star systems in which one member is an ordinary star and one a compact dark object.

Binary stars are Margon's particular interest, so he and Kwitter were searching for an optical counterpart to the X-ray source found by Bradt, Dower and company. They used the 120-inch telescope at the Lick Observatory on Mt. Hamilton near San Jose to look in the direction specified by the X-ray astronomers, which is in the constellation Cassiopeia. In the spectrum they obtained they found emission lines not characteristic of a binary star. From the redshift, Margon deduced that they were seeing a quasar that was some distance outside our galaxy rather than a binary star that would have been inside our galaxy. If this quasar didn't happen to be lined up with the obscuring dust in the plane of our galaxy, it would look like an 11th magnitude star. The discovery of quasars might have come decades before.

The discovery of a quasar so near is sure to be injected into the continuing debate over their cosmological significance. Theories that assign the quasar phenomenon to the early days of the universe will have to make room for more contemporary possibilities. □