count for swimming behavior differences, for thyroxine treated animals were also lighter than the controls although somewhat heavier than the cortisol group. In general, each rat was studied longitudinally and therefore prior swimming experience may have influenced the timetable of swimming development. Recent longitudinal as opposed to cross-sectional studies suggest however that this is not the case.
8. The front feet are held relatively immobile in parallel extension and are used only for climbing escape attempts or pawing at the glass or periodically to aid in turning. A preliminary test of the adult mouse and gerbil indicates that they also swim with front paws in inactive extension. However, adult rabbits and hamsters, like dogs and cats, use their front feet actively in contralateral extensor-flexor movements. Phylogeny of these species differences may relate to relative front limb specialization as it equips an animal to function effectively in its own ecological niche.
9. J. Altman and G. D. Das, *J. Comp. Neurol.* **126**, 337 (1966); J. Altman, *ibid.* **136**, 269 (1969).
10. D. P. Purpura, *World Neurol.* **3**, 275 (1962); J. T. Eayrs and B. Goodhead, *Acta Anat.* **93**, 385 (1957).
11. Control rats displayed long latency, monophasic, positive responses from the earliest time period analyzed. There is a progressive reduction of mean peak latency with age, and the waveform gradually changes to a biphasic configuration, attaining adult patterns when the animal is 18 days old. From 12 days onward, secondary slow waves appear after primary responses. In thyroxine treated rats a better configuration, shorter latency and biphasic responses, followed in most of the cases by slow waves, were obtained in all ages. These responses exhibited adult characteristics at 15 days of age, although even shorter latencies were still demonstrated at 18 and 120 days of age. In cortisol treated animals, evoked responses at 6 days of age were rarely seen. Consistent monophasic responses of longer latency than those of controls appeared at 9 days and progressively reduced their latency, displaying the same biphasic waveform and latency of the control by day 15.
12. H. E. Craigie, in *Neuroanatomy of the Rat*, W. Zeman and J. R. Maitland Innes, Eds. (Academic Press, New York, 1963), p. 11.
13. The structures controlling the integrated movements of swimming are unclear. Partial or total cerebellectomy, while completely disrupting coordinated antigravity movements may only slightly impair effective swimming in the adult dog. Labyrinthine structures appear to primarily coordinate swimming reflexes: R. S. Dow and G. Moruzzi, *The Physiology and Pathology of the Cerebellum* (Univ. of Minneapolis Press, Minneapolis, 1958), pp. 25, 27, 39, 101, and 273.
14. S. Levine, *Sci. Amer.* **202**, 80 (1960).
15. Supported in part by PHS grant AM-06603, and by a fellowship to M.S. from the Foundation Fund for Research in Psychiatry. We thank Dr. Joseph Altman for discussion of the manuscript.
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Water: Nomenclature

Lippincott, Stromberg, Grant, and Cessac (*1*) published further experimental confirmation of the existence of orthowater and proposed that the species be renamed "polywater." Normally I regard nomenclature as a rather trivial scientific matter, but in the present instance considerable confusion could result if the proposed name is adopted. While it has a certain popular ring to it, the name "polywater" is equally applicable to any of a number of possible water species found in pure water, in solutions, and near interfaces, as well as to the species whose formation appears to be catalyzed by silica surfaces. The polymeric nature of liquid water, it should be noted, has been recognized since the 19th century (*2*). "Ordinary" water, therefore, can be accurately described as "polywater."

Alternatively I would like to propose the following system of nomenclature which represents an extension of the usage of Bernal and Fowler (*3*) and parallels the accepted usage for the solid phase:

In the bulk, pure liquid
- Water-i — The monomer
- Water-ii — Small polymers $(H_2O)_n$ of $n = 2$ to 4
- Water-iii — Large polymers of $n > 4$
  - a. Randomly hydrogen-bonded
  - b. Hydogen-bonded with at least non-ice-I-like near-neighbor order
- Water-iv — Ice-I-like

Near solutes
- Water-v — Electrostricted water of hydration
- Water-vi — Enforced water structures near ions (except water v)
- Water-vii — Broken water structure near ions
- Water-viii — "Icebergs" or clathrate structures near nonpolar solutes or nonpolar segments of macromolecules

Near interfaces
- Water-ix — Near neutral and nonpolar interfaces
- Water-x — Near silica
- Water-xi — Absorbed or chemically bound water

In the foregoing system "polywater" or orthowater is designated water-x.

In order to avoid the implication that these forms represent phases in the thermodynamic sense, in contrast to the case of the ices, lower rather than upper case Roman numerals have been used. The proposed scheme is a tentative working one, its categories may be replaced by more exact designations if and when the nature of the water species becomes more exactly identified. While systematic, the scheme is flexible —an important advantage for, in the light of subsequent studies, some of these species may be found to be nonexistent in the liquid (i, ii, and iv), some may be found to be synonymous (iii and iv; iii and vi; viii, ix, and x), and some may be further subdivided (xi); but the usefulness of the above proposed nomenclature should remain unimpaired.

Although not repeated in the above scheme, a given water species may occur in more than one of the three location categories: water-iv, for example, may be found in bulk solution, near solutes, and near interfaces; water-v, -vi, and -vii will surround charge sites on a surface as well as ions in solution; and according to Lippincott *et al.* water-x may exist in bulk solution as well as near silica surfaces.

The proposed system provides very brief, yet exact, descriptions of the various theories of water (the Bernal-Fowler theory becomes a water-iii$_b$–water-iv model; the Frank-Wen-Nemethy-Scheraga theory a water-i–water-iii$_a$ model; the Pauling-Frank-Quist theory becomes a water-i–water-viii model; the Samoilov theory a water-i–water-iv model). It also describes complex situations, such as those obtaining in inorganic ion-exchangers (water-v–water-vi–water-vii–water-x–water-xi) and biomembranes (water-viii–water-ix–water-xi).

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2. See H. M. Chadwell, *Chem. Rev.* **4**, 375 (1927) for a review of early theories.
3. J. D. Bernal and R. M. Fowler, *J. Chem. Phys.* **1**, 515 (1933).

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Sex Ratios of Newborns and Schizophrenia

F. T. Melges (*1*), referring to my article (*2*), introduces new data from a previous report (*3*) which fail to show a relationship between the sex of newborns and mothers who develop postpartum schizophrenia. I have confirmed my findings and have, in collaboration with R. Levine, used an elaboration of my early speculations to predict successfully the sex of 44 of 47 infants, prediction based upon the history and course of the maternal mental illness (*4*).

In his report Melges utilizes the broad diagnostic criteria that I described, and in a personal communication states he ran "a separate analysis