way. Therefore I think it possible that his results could be explained by inability of the pheromones to reach the receptor sites.

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I am grateful to H. G. Langford and B. L. Welch for their comments.

I have no evidence that reserpine in the dosage used by me caused any marked swelling of the nasal epithelim that resulted in blockage of the nasal passage. Moreover, close examination of the reserpine-dosed animals revealed no abnormality in breathing movements. Thus the possibility that the animals were rendered anosmic by administration of reserpine seems remote.

Welch raises the important question of hypothalamic mediation in the male-induced failure of pregnancy in mice and in the role of reserpine in preventing the failure of pregnancy. There is considerable evidence that, at least in the rodents, administration of reserpine inhibits the release of follicle-stimulating and luteinizing hormones and stimulates, or withdraws inhibition of, the release of prolactin from the hypophysis (*1*).

Minute amounts of reserpine, insufficient to cause hypertrophy of the mammary gland in the rabbit when administered systemically, cause secretion of milk when injected into the third ventricle (*2*). Implantation of very small amounts of solid reserpine into the posterior tuberal area of the hypothalamus in rabbits releases prolactin from the hypophysis, without noticeable damage to the brain tissue (*3*); direct implantation of reserpine into the hypophysis does not induce release of prolactin (*3*).

Reserpine does not provoke release of prolactin from the hypophysis of rabbits bearing elecrolytic lesions in the basal tuberal hypothalamus; on the contrary, reserpine induces release of prolactin if the lesions are made elsewhere in the hypothalamus (*4*). Thus it seems very likely that the release of prolactin from the hypophysis that is induced by reserpine is mediated by the basal tuberal hypothalamus.

The immediate endocrine cause of the failure of pregnancy that is induced in mice by males is the failure of the luteotrophic activity of the anterior hypophysis (*5*). Thus there is sufficient reason to believe that the inhibition by reserpine of the male-induced failure of pregnancy is caused by suppression of the inhibitory influence of the hypothalamus on pituitary release of prolactin.

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Extraterrestrial Life

Horowitz comes close to error as well as incongruity when he dismisses (*1*) the possibility of life on Venus, limiting his comments to the search for life on Mars. I find the very different outlook of Murray and Davies (*2*) much more persuasive.

The question of the surface temperature on Venus is one on which reasonable scientists can and do differ. It is commonly and unfortunately believed that Mariner II conclusively settled the question (*3*) in favor of a high surface temperature (about 700°K); in fact it did no such thing, nor was such a claim published (*4*). Many observations of high brightness temperatures at radio wavelengths have led several atmospheric physicists to hypothesize a high surface temperature and widely varying model atmospheres (*5*); but the hypotheses remain unestablished. Other workers have suggested various nonthermal mechanisms (*6*), such as electrical-discharge phenomena, to explain the high brightness temperature. Although these mechanisms have been no better established, and although they suffer from not having been explicated with the detail (see, however, *7*) of the thermal hypotheses, they can by no means be dismissed—that is, they are not in clear disagreement with observation, the final arbiter.

Perhaps new experimental tools being exploited in this laboratory (*8*) and elsewhere (*9*) will resolve the issue, or it may be that it will remain unsettled until the U.S. (or the U.S.S.R., whose interest in Venus appears greater than ours) performs such an experiment as the parachute-borne probe of the Cytherean atmosphere proposed by NASA.

Meanwhile I commend the view on exobiology of the Space Science Board of the National Academy of Sciences which stated (*10*) that "The interpretation of the radio emission is, at least, questionable. Few planetary physicists would be surprised to hear that a nonthermal source exists."

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