previous work on the role of trigeminal mechanisms in the control of vertebrate ingestive behavior (*7*).

For this reason our study involved lesions of a specific sensory pathway rather than damage to a large number of diencephalic structures or massive depletion of regional neurotransmitters. We obviously think it significant that so restricted a lesion should have such disruptive effects. Nevertheless, given the relative specificity of the trigeminal lesion we are not surprised that there should be significant differences between the trigeminal and the LH syndromes. It is precisely such differences that are of greatest interest, because they enable us to identify the unique contributions of the trigeminal system to the control of ingestive behavior.

The fact that both trigeminal and neurochemical lesions produce some of the same deficits suggests that they may operate upon common substrates. We hope future research from both our laboratories will clarify the relation between central dopaminergic and central neurosensory processes in the control of eating and drinking.

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3. Moreover, section of the infraorbital branch of the trigeminal nerve (vibrissae denervation) produces the hunched posture and lowered snout seen after electrolytic or neurochemical lesions in the rat. Because these deficits involve peripheral manipulations of trigeminal sensory structures they reinforce our conclusion that the syndrome we described is of trigeminal rather than nigrostriatal origin (A. Marwine and H. P. Zeigler, paper presented at the meeting of the Eastern Psychological Association, held in New York City, April 1975).
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Aerosols and Polar Temperature

Reck (*1*) considers that some workers (*2*, *3*) have incorrectly attributed surface cooling at high latitudes to increases in atmospheric dust there. She concluded "that aerosol particles over the polar regions have not been responsible for the ice mass increase in the Arctic, since they always have a heating effect."

Her conclusion was predestined, however, by her decision to consider a dust layer introduced "in the lowest 0.75 km of the atmosphere," an unrealistic way to consider the effect of global dust. In polar regions such dust is introduced near the top of the troposphere and deposited with snow at the surface, not vice versa. I would agree with her result as applied to dust generated at the surface, but this is a relatively rare occurrence at high latitudes.

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The original choice of a low-lying aerosol layer (*1*) was based on the results of balloon soundings by Hofmann *et al.* (*2*) for 85°N, 3 December 1971 and 6 December 1972. Hofmann *et al.*'s measurements indicated that aerosol abundances at altitudes lower than 4 to 5 km were as much as five times greater than abundances at higher altitudes.

We have performed additional calculations for 85°N in July with a high-altitude aerosol layer. For the present background aerosol abundance (turbidity corresponding to an optical density of 0.065) and also for ten times the amount, heating is obtained when the aerosol layer is located near the tropopause (between 8.4 and 12.1 km).

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