

ity disorder or of the sample taken as a whole. In these two analyses, parental brutality (physical aggression and violence) was the factor most strongly associated with overall outcome.

In any case, both of these studies point out the importance of substance abuse in the course and outcome of borderline personality disorder. We hope that this information leads to clinicians paying close attention to this often overlooked set of co-occurring disorders.

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### Which Image for Lorenz?

TO THE EDITOR: The *Journal's* photo of Konrad Lorenz with the geese who behaved toward him as if he were their mother (1) is charming indeed, but Lorenz's politics were anything but charming. Because those politics were unknown to the author, Francine M. Benes, M.D., Ph.D. (who was horrified to learn of them), I call those views to the attention of readers.

Lorenz was explicit in his defense of Nazi concepts of racial purity (2). He wrote in 1940 that

the only resistance which mankind of healthy stock...can offer against being penetrated by degeneracy is based on the existence of certain innate schemata....Our species-specific sensitivity to the beauty and ugliness of members of our species is intimately connected with the symptoms of degeneration caused by domestication, which threaten our race....Decadent art provides many examples of such a change of signs....The immensely high reproduction rate in the moral imbecile has long been established....This phenomenon leads everywhere to the fact that socially inferior human material is enabled...to penetrate and finally to annihilate healthy stock. This selection for toughness, heroism, and social utility...must be accomplished by some human institution, if mankind, in default of selective factors, is not to be ruined by domestication-induced degeneracy. The racial idea as the basis of our state has already accomplished much in this respect. (3, p. 2)

Lorenz justified Nazi legal restrictions against intermarriage with non-Aryans as a social measure to correct for "domestication-induced degeneracy." After the war, Lorenz no longer referred to his 1940 article, but his Nazi past should never be forgotten—notwithstanding his Nobel Prize.

### References

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3. Lorenz K: Dutch Domestikation verursachte Störungen arteigenen Verhaltens (German). *Z Angew Psychol Charakterkunde* 1940; 59:1–81

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### Dr. Benes Replies

TO THE EDITOR: Dr. Eisenberg is appropriately concerned about the article describing Konrad Lorenz's seminal observations regarding the critical periods for the development of imprinting. Having knowledge of Lorenz's political views, Dr. Eisenberg felt obliged to inform the readership that Lorenz had embraced horrific ideas regarding racial prejudice.

It is clear, based on his work on imprinting, that Lorenz was capable of thinking in a logical and reality-based manner. But having the capability of thinking logically as a scientist does not necessarily ensure that one will arrive at moral conclusions. Beginning a syllogistic process with premises that were prejudicial in nature lead Lorenz to a tragically false conclusion. Dr. Eisenberg's letter underscores the fact that scientific prowess can be associated with grotesquely misguided sociopolitical views. It is a sad fact that being a scientist, even a Nobel laureate like Lorenz, does not ensure that logic will prevail over prejudice.

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### Behavioral Effects of Childhood Malnutrition

TO THE EDITOR: We read with interest the recent article by Jianghong Liu, Ph.D., et al. (1). For the past 35 years, we have been studying behavioral outcomes of Barbadian children with histories of protein-energy malnutrition or kwashiorkor in their first year of life and a healthy comparison group, classmates of the index children (2). The children had adequate birth weights and no repeat episodes of malnutrition and were followed by the National Nutrition Centre through age 11. The children were assessed extensively through age 18 and are now being reexamined by us at 32–37 years of age. Using both teacher and parent behavior checklists at several ages, we documented attentional deficits in 60% of the children with histories of malnutrition versus 15% of the comparison group, lasting at least until age 18 (3–5). Other behaviors reported by us that were associated with infantile malnutrition included increased aggressive behavior at ages 9–15 (4) and poor socialization at ages 5–11 (3).

Our concern with the study by Liu and colleagues is that it did not distinguish between the effects of chronic and acute malnutrition, the timing of the malnutrition, or the different forms of childhood malnutrition. Nutritional status was documented only at age 3; medical care before and after this age was not analyzed. It is well known that malnutrition during critical periods of brain development (from the second trimester of pregnancy to age 2) is associated with permanent deficits in brain and behavioral function, whereas malnutrition experienced after this period does not produce permanent deficits (6). Moreover, the authors were unable to eliminate the presence of continuing health and nutritional problems after age 3 as contributing to the observed behaviors. The definition of malnutrition used in this study is very unconventional. Heights and weights, standard measures of nutritional status, were not included despite a prior article by these authors that included heights and weights (7). Especially confusing is that the taller and heavier children (who were therefore presumably not malnourished) in their earlier study showed more aggression, conflicting with findings in the current study of more aggression in "malnourished" children. Finally, the term "dose-response,"