

but animals for the nonscientist. Like so many others, he speaks to the issue of man's animal nature. But beyond this, similarities to other books of the genre become increasingly difficult to discern. Wickler's writing style lacks the intimacy and charm of Konrad Lorenz, but his clear exposition and fascinating examples draw the reader along. In contrast to the overly simplistic extrapolations and extravagant conclusions of some other authors, Wickler's tone is cautious, and his conclusions are tentative. He warns that similarities in behavior among widely diverse species can only suggest working hypotheses for further study; to read into them anything more Wickler regards as unscientific. I feel, however, that he fails to make the point strongly enough and could very well find his work misinterpreted by those zealots seeking fuel for a debate on the emotional issues of human sexuality. For this reason I hesitate in recommending the book to those for whom it was written. On the other hand, it can be a delight to the more sophisticated student of animal behavior, especially the trained laboratory researcher who is weary of computing the mounts, thrusts, and lordosis quotients of his domesticated laboratory rats. Wickler's book offers a fascinating selection of problems for further experimental analysis. Less than half of the cited studies originally appeared in English; and for those like myself who do not routinely read the French and German publications, there are sure to be a few revelations. For instance, I was intrigued by the description of D. von Holst's studies of tree shrews, in which social stress can be reliably evaluated by the bristling of hair on the tail. Wickler also provides stimulating summaries of other such ethological work as that of K. Immelmann and J. Nicolai, both of whom are well known in Europe, but because of relatively infrequent publication in English are quite unfamiliar to Americans.

The longest portion of the book is devoted to pair formation, pair bonding, and associated behavior. It is rather remarkable that this section, designed as it is for the nonscientist, represents one of the most thorough treatments of avian pair-bonding in the English lan-

guage since David Lack's reviews of the early 40's. Most research in this area has been performed on the Continent and has been published mainly in German. Wickler's treatment of the subject is very much in the tradition of Lorenz's classic "Kumpan" paper of the mid-30's.

In many ways the approach of European ethologists to animal sexual behavior has been much broader than that of investigators in the United States. While Americans have focused heavily on the physiology of copulation in the rat, hamster, and guinea pig, ethologists have investigated a wider array of species and have tended to view copulation as but one event in the whole range of reproductive activities. Wickler emphasizes the fact that in many species genital display and even copulation itself are more instrumental in serving the purposes of social organization and territoriality than of reproduction. For example, among spotted hyenas the genitals are exposed as a form of greeting and possibly as a means of individual recognition. Both males and females engage in the display, but more striking is the fact that the females have evolved an erectile phallus-like structure and scrotal patches which make them indistinguishable from males. Wickler goes on to point out that in many primates, including man, genital display has been

adopted as a means of expressing social prerogatives. For instance, Kummer's work shows that among hamadryas baboons only the "pasha," the highest ranking male, performs the entire series of copulations necessary for ejaculation; however, young males mount and copulate with females short of ejaculation and pregnancy. It is suggested that in the latter case copulation serves the primary function of reinforcing social bonds within the troop. Moreover, as a gesture of appeasement, young males may allow the pasha to mount and attempt to copulate with them. Wickler juxtaposes this with Roumajon's account of analogous behavior among gangs of young people in France. From this he draws the conclusion that copulation among many species may serve importantly in pair-bonding; and speaking directly to issues raised in *Humanae Vitae*, he adds that copulation is not necessarily an "introduction to the procreative processes."

THE SEXUAL CODE should be read not as a refutation of Pope Paul's stance, but as a thoughtful inquiry into the basic assumptions of *Humanae Vitae*. Certainly Wickler persuades us that the natural laws of human sexual behavior require further examination.

Let's Pretend to Be Rational

Edward R. Bloomquist

Marijuana: The Second Trip. Beverly Hills, California: Glencoe Press, 1971. Pp. vi + 434. \$6.95 cloth; \$4.95 paper.

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IF you think marijuana is a wonderful gift to humanity, producing nothing but rapture and goodness, you will not like Bloomquist's book, for he has little patience with pro-marijuana extremists. If you think every puff of marijuana turns the user into a psychotic maniac, you will also dislike Bloomquist's book, for he doesn't buy this kind of extremism either.

If you're against marijuana and want to appear very reasonable about your opposition, you will like Bloomquist's book: here are lots of ideas and arguments to bolster your position. If, on the other hand, you think that the balance of marijuana's effects are desirable, you will be outraged by Bloomquist's selective treatment of data, done under the label of a 'neutral' assessment.

In the first eleven chapters of this book Bloomquist says he will take a middle-of-the-road position and try to rationally weigh the evidence for and against marijuana. In the twelfth chapter, "First Person Singular: Is There a Rational Approach?", he expresses his opinion that the adverse effects of marijuana outweigh its beneficial effects and believes society should take a *very* firm stand to reduce or eliminate marijuana use before it's too late. Bloomquist's personal opinion will not come as a surprise to the reader who has read the earlier chapters. As he says in his last chapter, "I do not apologize for making available to the reader a large source of material which is negative to pot, because this book is one of the few places where a reader can evaluate these articles. The current tendency for writers discussing cannabis use is to eclectically select material favorable to a given cause and deny that opposing evidence exists—or, if it does exist, that it is pertinent. I have tried to present material from both sides. More information is available against pot than for it because this is the way the observation and research pendulum has swung ever since man began making written observations concerning this remarkable plant and the drug contained in its resin."

I found that reading Bloomquist's book was a depressing task, for it convinced me that our attempts to be 'rational' or 'objective' about an important

social problem seem doomed to failure. Bloomquist has reviewed a great deal of evidence and come up with a negative verdict on marijuana. As an investigator familiar with much of the evidence Bloomquist reviews, I find his review highly biased and selective. Methodological criticisms of studies favorable to marijuana use abound, while studies negative to marijuana use practically never receive methodological criticism.

I could review the same studies reported in this book and come up with an entirely opposite view. The depressing thing is that I am sure Bloomquist could read my overview and feel that I was biased in my assessment of those studies. And I suspect I would be more biased than I was aware of. Both of us would be acting the role of responsible scientists, impartially reviewing the evidence, but neither one of us would really be 'rational' because of the implicit value judgments behind our reviews.

ONE example of the values implicit in Bloomquist's approach is the preponderant use of the word *abuse* in connection with marijuana, in contexts where I believe the word *use* would have been adequately descriptive. The word *abuse* implies a negative value judgment: can a scientist use this word? Our attempts to develop a value-free science in this area have not been very successful.

At the least, a scientist can attempt to make his value judgments *explicit*, so others can try to assess how much they have affected his view of the data. The youthful reader will find many signs that Bloomquist's implicit values are 'up-tight' values of the older generation. For example, Bloomquist quotes, with apparent approval, a Doctor Eddy, "The only use for marijuana is to achieve gratification." Is there something wrong, per se, with gratification? If so, what?

Bloomquist is aware that other, apparently 'respectable' researchers and scholars have views contrary to his own, but he seems to regard such people as biased or sick. Talking about "pro-cannabis" researchers, Bloomquist says, "The more these men talk to users who experience no apparent complications

from cannabis use (*or the more the men use it themselves*) [Bloomquist's italics], the more certain they are that the whole cannabis problem is a sham and that the drug should be legally, morally, and socially approved." Or: "Encouraged by adult 'philosophers,' some of whom are desperately trying to solve their own persistent adolescent hangups, more and more kids decided to 'try and see.'" Bloomquist does not seem to really raise the question that 'respectable' people who oppose marijuana may have unresolved adolescent hangups of their own.

Since my own assessment of the effects of marijuana has been that it is relatively innocuous, compared to the harm caused by present legal attempts to deal with it, and since I have made public statements to that effect, I suppose Bloomquist would also include me among the pseudo-intellectuals who are still working out their adolescent hangups.

This book is aimed primarily at the general public, rather than at professionals, and could have a strong influence on people who have not made up their mind about the marijuana issue and do not know the scientific literature themselves. The number of these people may be rather small, since this is an issue decided for the most part emotionally, rather than by weighing evidence. As a bit of *data* illustrating the problem of implicit value judgments affecting our scientific view of things, the book is useful, but I cannot otherwise recommend it.

... Who shall parcel out
His intellect by geometric rules,
Split like a province into round and square?
Who knows the individual hour in which
His habits were first sown, even as a seed?

—WORDSWORTH

If the plays and novels of today deal with littler people and less mighty emotions, it is not because we have become interested in commonplace souls and their unglamorous adventures, but because we have come, willy-nilly, to see the soul of man as commonplace and its emotions as mean.

JOSEPH WOOD KRUTCIH
The Modern Temper