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Harold A. Herzog Jr.
Mars Hill College

Sandy McGee
Warren Wilson College

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Psychological Aspects of Slaughter: Reactions of College Students to Killing and Butchering Cattle and Hogs

Harold A. Herzog, Jr. and Sandy McGee

Harold A. Herzog, Jr. is an associate professor of psychology at Mars Hill College, Mars Hill, NC. Sandy McGee is a student at Warren Wilson College and a member of the farm crew.

This study examined the reactions of college students involved in slaughtering cattle and hogs as part of their jobs on a college work crew. The 27 students were surveyed on attitudes containing items toward slaughtering animals and toward different uses of animals. Nineteen were later interviewed. Some aspects of slaughtering were reported to be more bothersome than others. There was a relationship between the amount of experience of the subjects in slaughtering and also their general attitudes toward various uses of animals and their responses to several of the items on the questionnaire. The perceived benefits of the slaughtering experience and the justifications given for the killing of domestic animals for food are also discussed.

Zusammenfassung

Diese Studie untersuchte die Reaktionen von Universitätsstudenten, die als Teil ihrer Ausbildung in einer Arbeitsgruppe am Schlachten von Rindvieh und Schweinen teilnahmen. Bei den 27 Studenten wurden Beobachtungen angestellt bezüglich deren Einstellung zum Schlachten und zu den verschiedenen Verwendungsarten von Tieren. Mit 19 Studenten wurden später Interviews veranstaltet. Einem Bericht gemäss waren einige Aspekte des Schlachtaktes mehr beunruhigend als andere. Es gab eine Beziehung zwischen dem Umfang von Erfahrung mit Phasen des Schlachtens sowie auch deren allgemeinen Einstellung zu den verschiedenen Verwendungsarten von Tieren und ihren Reaktionen zu Einzelheiten auf dem Fragebogen. Die deutlichen Vorteile der Erfahrung im Schlachten und die Rechtfertigungen für das Töten von Haustieren für den menschlichen Konsum werden ebenso behandelt.

Introduction

With the exception of hunters, butchers, and ranchers, few people in industrialized nations ever have the experience of slaughtering and butchering large animals. Most people find the very topic distasteful; their only contact with meat occurs after the animal has been reduced to cellophane packages of beef, pork, or chicken. Indeed, Singer (1975) notes that if each individual who eats meat first had

to slaughter and butcher the animal, almost everyone would be a vegetarian. This study examined the psychological reactions of college students to slaughtering cattle and swine.

Warren Wilson College is a small (260 men, 300 women), liberal arts college located in the mountains of western North Carolina. The college is one of four such institutions in the United States with a work program whereby each full-time resident student works 15 hours per week in exchange for room and board. The campus includes a 300-acre farm that is devoted largely to the production of beef cattle and hogs. During the 1981-1982 academic year, there were about 100 heifers and 35 sows being maintained on the farm.

All slaughtering is done by the students on the farm crew, under the supervision of the farm manager and an inspector from the United States Department of Agriculture. During the 1981-1982 academic year, about 30 cows were slaughtered. Because hog production on the farm is oriented to selling feeder pigs, only about five hogs were killed during the same period.

The slaughtering process is begun when one of the steers is haltered, led into the abattoir, and tied to a metal ring attached to the floor. The animal is then shot in the head. This method of killing has been recommended as being one of the most humane and reliable (Grandin, 1980). Generally, the farm manager and the federal inspector are the only ones present during the shooting of the steer, although students are allowed to observe if they request to do so. Most students, however, choose not to witness the actual killing. The animal's throat is then slit and it is allowed to bleed. At this point, the students reenter the room and resume the slaughtering process. The steer is skinned, and the head and hooves are removed. The animal is then raised off the floor and eviscerated. The heart, liver, and kidneys are then inspected and put aside. Once the inspector has approved and stamped the carcass, it is quartered and transported to the chill room, where it is hung to age 7 to 28 days before being butchered. Two to four steers are normally slaughtered in a 3-hour session.

The situation at Warren Wilson provided an excellent opportunity to investigate the psychological impact that the act of killing and slaughtering a large animal has on relatively inexperienced individuals. To this end, a questionnaire asking students about their reactions to slaughtering was distributed to the farm crew. The survey also attempted to examine some of the students' general attitudes toward various uses of animals. In addition, some of the subjects were later interviewed so that certain aspects of their answers could be explored in greater depth.

Methods

Subjects

The members of the farm crew of the college were used as subjects in the study. At the time, there were 16 men and 24 women working on the farm. The farm crew is subdivided into a cow crew, a pig crew, and a general work crew. All of the students are involved in slaughtering, although the students on the cow and pig crews manage the day-to-day husbandry of the animals and thus have more experience with their respective species than do the general farm crew. The survey was distributed to the 37 students (23 women and 14 men) who had slaughtered at least one cow or hog. Of these, 27 (73 percent) were returned. This sample was composed of 8 men and 19 women. The average age of the respondents was 19 years (range, 18-24). All of the students were majoring in general liberal arts or science subjects. Sixteen of the

subjects described their background as suburban, with eight and two, respectively, claiming to be from rural or urban areas. One was unclassified. Three of the subjects were vegetarians (for health reasons), and the rest were nonvegetarians.

The amount of their experience in slaughtering varied widely. The mean number of cattle slaughtered by the subjects was 14.0 (range, 1-43). This does not include experience with cutting and packaging meat. Ten of the students had also been involved in the slaughtering of hogs, with the mean number of hogs slaughtered by those students being 1.7 (range, 1-4). The college academic year is based on four 8-week terms, and the students surveyed reported that they had been on the farm crew an average of 5 terms (range, 2-10 terms).

Questionnaire

The questionnaire consisted of four parts. Part I requested basic demographic information (sex, age, number of cows and pigs slaughtered, etc.). Part II consisted of 14 statements pertaining to various aspects of slaughtering and attitudes related to slaughtering. The answers were graded according to a Likert scale, with subjects asked to indicate whether they "strongly agreed," "agreed," "were undecided," "disagreed," or "strongly disagreed" with each statement. Part III was designed to provide an indication of each subject's general attitude toward various uses of animals. It consisted of a list of 10 uses of animals, ranging from cockfighting to eating meat. The subjects were asked to indicate whether they "approved," "disapproved," or "were undecided" about each item. By assigning the number 3 to each approval, 2 for an undecided, and 1 for each disapproval, each subject was given a score ranging from a possible maximum of 30 to a minimum of 10. Part IV consisted of five open-ended questions (e.g., "Are there aspects of slaughtering that you particularly dislike? Please list them below.").

Results

The results of Part II of the survey are presented in Table 1.

There were several statements that a large percentage of the respondents agreed with. The majority (89 percent) felt that slaughtering was sometimes an interesting experience, and that it was also a valuable experience for them (again, 89 percent). A large number of the students reported that they had discussed their feelings about this aspect of their work with their peers (87 percent). Seventy-four percent of the respondents disagreed with the statement that they had never felt queasy or ill during slaughter. About half (48 percent) reported having dreams related to killing cows or pigs, and the same proportion said they sometimes had a feeling of accomplishment after slaughtering. Forty-eight percent also admitted to joking sometimes about this aspect of their work. A relatively small number (19 percent) reported sleep disturbances after their first experience with slaughtering. Only 22 percent admitted that they sometimes enjoyed the experience. Half indicated that they sometimes didn't eat meat after slaughtering, and 41 percent said that their ideas about eating meat had changed as a result of their experience on the farm crew.

The answers to the items in Part II were analyzed with regard to the relative experience of the subjects. To do this, the responses to each statement of the 11 students who had slaughtered 20 or more cows ($\overline{X} = 25.5$; range, 20-43) were compared with the responses of the nine crew members who had killed 5 or fewer cows ($\overline{X} = 2.2$; range, 1-4). This analysis indicated that there were significant differences between the experienced and inexperienced subjects in their responses to two of the statements. The experienced respondents were more likely to have

TABLE 1 Percentages of Subjects Responding to Items on Part II

Statement	Strongly Agree (%)	Agree (%)	Undecided (%)	Disagree (%)	Strongly Disagree (%)	Total Number of Students That Responded (%)
1. Sometimes I find slaughtering livestock interesting.	29	59	4	4	4	27
2. I have occasionally had dreams as a result of slaughtering.	20	28	0	28	24	25
3. I have never felt queasy or nauseous while slaughtering.	11	15	0	52	22	27
4. Sometimes slaughtering a cow or pig gives me a feeling of accomplishment.	4	44	7	26	18	27
5. It bothers me more to kill a cow or pig that I have formed a personal attachment to.	24	32	28	12	4	25
6. Sometimes I joke about my work slaughtering animals.	4	44	11	26	15	27
7. My ideas about eating meat have changed as a result of my work on the farm crew.	15	26	11	18	30	27
8. I have discussed my feelings about my work with other students or faculty.	27	59	4	11	0	27
9. I could not sleep well the night after I was involved with slaughtering the first time.	8	12	12	46	23	26
10. I feel that slaughtering animals has been a valuable experience for me.	44	44	7	4	0	27
11. I have sometimes felt guilty about being involved in the killing of cows or pigs.	12	38	4	15	31	26
12. Immediately after butchering a cow or pig, I sometimes avoid eating meat.	19	31	0	23	27	26
13. I have sometimes felt a bit sick to my stomach during or after the butchering of livestock.	22	37	0	26	15	27
14. Sometimes I enjoy slaughtering cows or pigs.	4	19	15	37	26	27

agreed that slaughtering sometimes gives them a feeling of accomplishment (question 4, $X^2 = 7.137$, $P < .01$, df = 1). On the other hand, the inexperienced group was more likely to report that they sometimes avoided eating meat as a result of slaughtering (question 12, $X^2 = 4.232$, $P < .05$, df = 1). Differences between the two groups approached significance on questions 6 ($X^2 = 3.600$, $P < .1$, df = 1) and 13 ($X^2 = 3.430$, $P < .1$, df = 1).

In Part III of the survey, the subjects were asked to indicate how they felt about 10 uses of animals. The results are summarized in Table 2. The activities most approved of were meat eating, hunting for meat, and the killing of household pests. The activities most objected to were trapping animals for fur, cockfighting, and hunting for sport.

The mean of all subjects was 21.4 (range, 15-28) on a scale that had a minimum score of 10 and a maximum of 30. The nine subjects with the middle-range scores were omitted from the following analysis. The subjects with the highest scores ("hawks") had a mean score of 24.9, while the 10 ("doves") had a mean score of 18.2. The two groups were then compared in terms of their responses to the statements in Part II.

The hawks and doves differed significantly in their responses to three of the statements. Hawks were more likely than the doves to agree that slaughtering sometimes gave them a feeling of accomplishment (question 4, $X^2 = 8.100$, $P < .01$, df = 1). The doves, however, had a greater tendency to agree that they sometimes felt guilty as a result of slaughtering (question 1, $X^2 = 9.171$, $P < .01$, df = 1). The doves were also more likely to report that they sometimes did not eat meat after slaughtering (question 12, $X^2 = 5.130$, $P < .05$, df = 1). There was no trend indicating that the more experienced workers were "hawkish" and the inexperienced "dovish."

Only one sex difference was found: Female crew members were more likely than their male counterparts to say that they sometimes felt sick to their stomach as a result of slaughtering ($X^2 = 5.527$, $P < .02$, df = 1). Sex differences in response to question 11 ("I have sometimes felt guilty....") approached significance ($X^2 = 3.436$, $P < .1$, df = 1). There was no relationship between having been raised in rural or suburban/urban areas and any of the items.

Open-Ended Responses

In Part III of the survey, the respondents were asked a series of six open-ended questions. Students who had been involved in the slaughter of both cows and pigs were asked if they reacted adversely to killing one species more than the other, and if so, why. Of the 10 subjects who had killed both types of animals, two indicated that killing pigs was more difficult for them, and one said that killing cows was more difficult. Reasons given for differences in psychological response to the two species included greater familiarity with the species felt to be more difficult to kill, and the greater amount of fat and resultant "messiness" involved in killing pigs. The most interesting reason was given by a woman who worked primarily with the hogs, but who had more experience killing cattle. She indicated that the similarity between the skin of a pig and human skin made slaughtering hogs more difficult for her. As she puts it, "Pigs have skin, cows have hide."

The subjects were also asked to indicate how many times they had slaughtered before they felt psychologically adjusted to the experience. They were asked to answer the question only if they felt that they had been bothered by the experience initially. Nine of the crew reported that they originally had been bothered by the experience, with two of

TABLE 2 Percentages of Subjects Approving, Undecided, or Objecting to Ten Uses of Animals, and the $\bar{X}$ Value Rating of the Activity*

Activity	Approve	Undecided	Object	$\bar{X}$
1. Eating meat	93	7	0	2.93
2. Cockfighting	4	26	70	1.33
3. Hunting for sport	15	26	59	1.56
4. Keeping animals in zoos	44	37	18	2.26
5. Killing household pests (e.g., mice)	81	15	4	2.78
6. Trapping animals for their fur	4	8	88	1.15
7. Hunting for meat	93	7	0	2.93
8. Using animals in medical research	37	48	15	2.22
9. Rodeo sports using animals (e.g., calf roping)	33	41	26	2.07
10. Horse racing	41	44	15	2.26

*Subjects were scored according to the following scale: approve = 3; undecided = 2; object = 1. The total number of subjects in the group was 27.

these indicating that they were still bothered by killing cattle. Of the remaining subjects, 6 said that it took two or three times for them to habituate, and one said that it took only a single experience.

Only 6 of the 27 subjects indicated that their experience in slaughtering had resulted in a change of their eating habits. Of these, 4 claimed that they have subsequently reduced their intake of meat, whereas 2 said they have gained an increased appreciation for good-quality beef.

Slaughtering is a strictly voluntary aspect of working on the Warren Wilson farm crew, and the students may elect not to participate on any given day, although the majority do decide to take part. Fifteen of the 27 respondents said that they had never refused to take part in slaughtering, 9 said that they sometimes refused, and 3 stated that they now always refused. Many different reasons were given for refusal to slaughter. Several noted that they did not participate when they were not feeling well for reasons of hygiene. Several also stated that they sometimes did not participate because there were already enough crew members doing the work and that having too many people involved was inefficient and potentially dangerous. Others gave more psychologically relevant reasons. For example, a 21-year-old man who had slaughtered 10 to 12 cows wrote:

> *I decided that I really did not enjoy the experience of slaughtering. Although I really do not disagree with slaughtering animals that have been raised for such a purpose, I do not feel the need to help with something that I have no personal interest in or desire to eat. I made a decision to avoid slaughtering altogether. I consider it an unpleasant task.*

A 19-year-old woman who only slaughtered one cow and now refuses wrote:

> *The first time I went into the slaughter room I had just haltered and pulled a steer into the waiting line. I could tell that the steer sensed what was going to happen to him. He was doing anything to get away. Then when I walked to the slaughter room I was amazed at the amount of blood. It was an awful feeling to look at that steer with its eyes open and his feet pointing up, so I had to*

look at the ceiling. Mr. _____told me to cut off the head with a saw. I couldn't do it so I left. I guess slaughtering affects me more than the usual person because I raised calves for 4-H at home and became quite attached to them — but I don't butcher them. I see nothing wrong with eating cattle for meat. It's necessary. But I would rather not be the one to do it.

A 19-year-old man was more succinct, writing, "It's pretty gross. I don't like having the dry heaves all day. Plus, I feel really bad for the cow. It's bad seeing a big animal turned into hamburger."

Finally, the students were asked if there were any aspects of slaughtering that they felt were particularly repugnant. Seventeen (63 percent) indicated that there were aspects that were especially bothersome. The one most often mentioned was the actual killing of the animal, which the student can hear while waiting in an adjacent room. The other commonly mentioned aspects were cutting off the hoves and head, skinning, and removal of the viscera. Several respondents also mentioned as distressing putting the animal in the pen to await slaughter, seeing the feet and muscles twitch on recently killed carcasses, and feeling warm flesh. A typical response to this question was from a 21-year-old woman who wrote:

I dislike the first few minutes of slaughtering, mainly because the steer's head is still on. After this is off, it appears to look more as meat than steer #256. Gutting the steer is interesting to me, being a zoology major.

Interviews

Nineteen of the students who were given the surveys were later interviewed as to the content of any slaughter-related dreams they might have had, their justifications for slaughter, and the value of the experience to them.

Dreams

Seven of the students interviewed admitted having dreams as a result of their experiences killing animals. Only 2, however, reported highly organized, story-like dreams. Once woman dreamed that a cow with its throat slit chased her and accused her of cutting off its horns. Another woman dreamed that the farm manager was slaughtering the farm crew and was cutting their throats and removing their arms and legs. The other students reported dreams that were less vivid and consisted of visual images of slaughtering rather than dreams with story lines. Several specifically reported images of animals with their throats being slit or being decapitated. Most reported that their dreams did not have a frightening, nightmarish quality.

Justifications for slaughtering

The most commonly reported justification for slaughtering, mentioned by 9 of the 19 interviewees, was that people eat meat, so that slaughtering must be done by someone. The second most frequently offered rationale was "that's what they were raised for." This was some times put in a slightly different form by students who argued that man created and raised domestic animals so therefore has a right to use them as he sees fit. Several students invoked a religious version of this by saying that God has given man dominion over all other life forms, so that we have a right to use them. Several stated that the animals on the college farm were treated well and slaughtered in a humane fashion. Two students reported sometimes feeling guilty about slaughtering because of reasons related to world hunger, saying that beef and pork production represented an inefficient use of farm land.

Benefits

Finally, the subjects were asked if they felt that they had benefitted from the experience of slaughtering and if so how. Eighteen of the 19 students interviewed said that they felt that it had been a good experience for them. This agrees with the responses to question 10 in Part II of the questionnaire. The reasons given varied greatly. Some of the students mentioned very practical benefits of their slaughtering experience. Several reported they had learned a lot about various cuts of meat, which would be of value to them in shopping or ordering beef at restaurants. Several also mentioned that they were glad to have learned the practical skills involved in slaughtering and butchering and now "know where meat comes from." Some reported that the process was generally interesting, and 3 specifically mentioned that learning anatomy was a benefit. Four of the students said that the experience had helped them to clarify their moral values relative to the consumption of meat. One man said that his being shocked about the gory aspects of slaughter would be of help to him later in life in coping with other shocking events.

One of the more interesting replies to the question of the value of the experience was from a woman. She noted that, in our society, few women have any experience with slaughtering, whereas men are more likely to have such experience by virtue of their involvement in hunting. She felt that slaughtering was of particular value to women precisely because they are usually sheltered from this aspect of life.

Discussion

As in any research that involves self-report of attitudes and behavior, the results of this survey should be viewed with some caution. The relationships between humans and animals involve emotional and value-laden issues, and thus, there is always the possibility that overt lying, self-deception, and the tendency to give socially approved answers may influence the results. For example, one of us (S.M.) has had ample opportunity over a period of several years to observe students' behavior during slaughter, and has found that joking during slaughtering and butchering is nearly universal, and often seems to reduce tension. However, only 48 percent of our respondents agreed with the statement "Sometimes I joke about my work slaughtering," suggesting that some of the subjects were unwilling to acknowledge this aspect of their behavior. In addition, our sample was relatively small and, of necessity, not randomly selected.

With this in mind, it is clear that our results indicate the complexity and ambivalence of the subjects' attitudes toward slaughtering. On one hand, they frequently reported that it sometimes makes them feel ill or guilty, and that it is not something that they enjoy. Paradoxically, however, they overwhelmingly agreed that it is interesting, and more significant, that it is a valuable experience for them. There were also significant individual differences. Some students had slaughter-related dreams and nightmares, although most did not. A few changed their eating habits, and some reported that they enjoyed slaughtering, at least some of the time. Thus, the psychological responses to slaughter were varied and complex.

One of the more interesting aspects of this study examined the rationale offered by the students to justify their involvement in the slaughter of hogs and cattle. Many of their justifications were the same as those offered to defend quite different uses of animals in other contexts. The justification "that's what they are raised for," often used by the students in this study, is also commonly invoked by cockfighters to justify the use

of chickens for cockfighting (McGahy and Neal, 1974; Herzog and Cheek, 1979). The most common justification of the study, that human welfare must override that of the animals, is often cited by scientists in rationalizing the use of animals in medical and behavioral research.

Burghardt and Herzog (1980) have argued that human attitudes toward animals are inherently irrational and are inextricably bound up with our "gut" responses to the particular species and its uses. Thus, characteristics such as perceived intelligence, cuteness, etc., are the mediating factors that determine how we morally evaluate the use (or abuse) of an animal. Several aspects of the students' responses to slaughter lend some credence to this notion. In the interviews and in the responses to the open-ended questions, the students repeatedly emphasized how the sheer size of the steers, the amount of blood, and most important, the presence of the head, eyes, and hide influenced how they felt about it. Once the head had been removed and the animal skinned, it was no longer a cow or pig—it was meat.

Conclusions

The general attitude toward slaughter among the students of the Warren Wilson College farm crew was one of ambivalence. Although they usually do not enjoy slaughtering and are often initially upset by it, most felt that it had been a good experience. The reasons given, however, varied greatly. The more experienced students and the more "hawkish" students were more likely to admit that they sometimes got a feeling of accomplishment from this aspect of their work. The less experienced crew members and the more "dovish" were more likely to say that they sometimes avoided eating meat after slaughtering. Women were more likely than men to say that they sometimes felt sick to their stomach as a result of slaughtering. There also were significant individual differences between the crew members in their psychological reaction to slaughter.

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References

Burghardt, G. and Herzog, H. Jr. (1980) Beyond conspecifics: is Brer Rabbit our brother? *BioScience 30*(11):763-768.

Grandin, T. (1980) Mechanical, electrical, and anesthetic stunning methods for livestock. *Int J Stud Anim Prob 1*(4): 242-263.

Herzog, H. Jr. and Cheek, P. (1979) Grit and steel: anatomy of cockfighting. *Southern Exposure 7* (2):36-40.

McGahy, C. and Neal, A. (1974) The fraternity of cockfighters: ethical embellishments of an illegal sport. *J Pop Cult 8*:557-569.

Singer, P. (1975) *Animal Liberation.* Avon, New York, NY.