

HOVEY AND BEARD COMPANY

The Hovey and Beard Company manufactures wooden toys of various kinds: wooden animals, pull toys, and the like. One part of the manufacturing process involved spraying paint on the partially assembled toys and hanging them on moving hooks which carried them through a drying oven. This operation was plagued by absenteeism, turnover, and low morale.

Let us look briefly at the painting operation in which the problem occurred.

The toys were cut, sanded, and partially assembled in the wood room.

Then they were dipped into shellac, following which they were painted. The toys were predominantly two-colored; a few were made in more than two colors. Each color required an additional trip through the paint room.

Shortly before the troubles began, the painting operation had been reengineered so that the eight employees who did the painting sat in a line by an endless chain of hooks. These hooks were in continuous motion, past the line of painters and into a long horizontal oven. Each employee sat at a painting booth so designed as to carry away fumes and to backstop excess paint. The painter would take a toy from an adjacent tray, position it in a jig inside the painting cubicle, spray on the color according to a pattern, then release the toy and hang it on the hook passing by. The rate at which the hooks moved had been calculated by the engineers so that each employee, when fully trained, would be able to hang a painted toy on each hook before it passed beyond reach.

The employees working in the paint room were on a group bonus plan.

Since the operation was new to them, they were receiving a learning bonus which decreased by regular amounts each month. The learning bonus was scheduled to vanish in six months, by which time it was expected that they would be on their own - that is, able to meet the standard and to earn a group bonus when they exceeded it.

By the second month of the training period, trouble had developed. The painters learned more slowly than had been anticipated, and it began to look as though their production would stabilize far below what was planned for. Many of the hooks were going by empty. The painters complained that they were going by too fast and that the time-study engineers had set the rates wrong. A few employees quit and had to be replaced, which further aggravated the learning problem. The team spirit that the management had expected to develop automatically through the group bonus was not in evidence except as an expression of what the engineers called "resistance." One painter whom the group regarded as its leader (and the management regarded as the ringleader) was outspoken in making the various complaints of the group to the supervisor. The complaints had all the variety customary in such instances of generalized frustration: the job was a messy one, the hooks moved too fast, the incentive pay was not being correctly calculated, and anyway it was too hot working so close to the drying oven.

[A] consultant ... was brought into this picture [and] worked entirely with and through the supervisor. After many conversations with the consultant the supervisor felt that the first step should be to get the painters together for a general discussion of the working conditions - something, incidentally, which was far from his mind originally and which in his own words would only have been "begging for trouble." He took this step with some hesitation, but he took it on his own volition.

The first meeting, held immediately after the shift was over at four o'clock in the afternoon, was attended by all eight painters. They voiced the same complaints again: the hooks went by too fast, the job was too dirty, the room was hot and poorly ventilated. For some reason it was this last item that they complained of most. The supervisor promised to discuss the problem of ventilation and temperature with the engineers, and he scheduled a second meeting to report back to the group. In the next few days the supervisor had several talks with the engineers, and it seemed that the employees' cynical predictions about what the engineers would say were going to be borne out. They and the superintendent felt that this was really a trumped-up complaint and that the expense of any effective corrective measure would be prohibitively high. (They were thinking of some form of air conditioning.)

The supervisor came to the second meeting with some apprehensions. The painters, however, did not seem to be much put out, perhaps because they had a proposal of their own to make. They felt that if several large fans were set up so as to circulate the air around their feet, they would be much more comfortable. After

some discussion the supervisor agreed that the idea might be tried out. (Immediately after the meeting, he confided to the consultant that he probably shouldn't have committed himself to this expense on his own initiative; also, he felt that the fans wouldn't help much anyway.) The supervisor and the consultant discussed the question of the fans with the superintendent, and three large propeller-type fans were purchased. The decision was reached without much difficulty, since it seemed that the fans could be used elsewhere after their expected failure to provide relief in the paint room.

The fans were brought in. The painters were jubilant. For several days the fans were moved about in various positions until they were placed to the satisfaction of the group. Whatever the actual efficiency of these fans, one thing was clear: the painters were completely satisfied with the results, and relations between them and the supervisor improved visibly.

The supervisor, after this encouraging episode, decided that further meetings might also be profitable. He asked the group if they would like to meet and discuss other aspects of the work situation. The painters were eager to do this. Another meeting was held, and the discussion quickly centered on the speed of the hooks. The group maintained that the time-study engineers had set them at an unreasonably fast speed and that they would never be able to reach the goal of filling enough of them to make a bonus.

The turning point of the discussion came when the group's leader frankly explained that the point wasn't that they couldn't work fast enough to keep up with the hooks, but that they couldn't work at that pace all day long. The supervisor explored the point. The painters were unanimous in their opinion that they could keep up with the belt for short periods if they wanted to. But they didn't want to, because if they showed that they could do this for short periods, they would be expected to do it all day long. The meeting ended with an unprecedented request: "Let us adjust the speed of the belt faster or slower depending on how we feel." The supervisor, understandably startled, agreed to discuss this with the superintendent and the engineers.

The engineers' reaction naturally was that the suggestion was heresy. Only after several meetings was it granted grudgingly that there was in reality some latitude within which variations in speed of the hooks would not affect the finished product. After considerable argument and many dire prophecies by the engineers, it was agreed to try out the idea.

With great misgivings, the supervisor had a control with a dial marked "low, medium, fast" installed at the booth of the group leader, making it possible to adjust the speed of the belt anywhere between the lower and upper limits that the engineers had set. The painters were delighted and spent many lunch hours deciding how the speed of the belt should be varied from hour to hour throughout the day.

Within a week the pattern had settled down to one in which the first half-hour of the shift was run on what the group called medium speed (a dial setting slightly above the point marked "medium"). The next two and one-half hours were run at high speed; the half-hour before lunch and the half-hour after lunch were run at low speed. The rest of the afternoon was run at high speed with the exception of the last forty-five minutes of the shift, which was run at medium.

In view of the painters' reports of satisfaction and ease in their work, it is interesting to note that the constant speed at which the engineers had originally set the belt was slightly below medium on the dial of the control that had been given the painters. The average speed at which the painters were running the belt was on the high side of the dial. Few if any empty hooks entered the oven, and inspection showed no increase of rejects from the paint room.

Production increased, and within three weeks (some two months before the scheduled ending of the learning bonus) the painters were operating at 30 to 50 percent above the level that had been expected under the original arrangement. Naturally their earnings were correspondingly higher than anticipated. They were collecting their base pay, a considerable piece-rate bonus, and the learning bonus, which, it will be remembered, had been set to decrease with time and not as a function of current productivity.

Questions

- 1) How will other groups in the plant react to the results of the experiment in the painting operation?
- 2) Analyse the case according to the different perspectives/approaches/theories of management.