

The Fifth Horseman, Part 3: the chilling climax

Ron Ely: Me Tarzan, you Miss America

A vet's reassuring advice on the dog virus scare

Rock is Sweet on Rachel

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# People

weekly

## AIRPLANE!

A nutball crew flies away with the summer's silliest movie



Clockwise from top: Robert Hays and Julie Hagerty with Otto the Autopilot; Peter Graves; Kareem Abdul-Jabbar; and Lloyd Bridges





In a sanitary gown, productivity expert Deming checks copier components at the Nashua Corp. in New Hampshire. Deming's statistical methods of quality control are estimated to have saved Nashua millions of dollars.

## **'MADE IN JAPAN' IS NO JOKE NOW, THANKS TO EDWARDS DEMING: HIS NEW PROBLEM IS 'MADE IN U.S.A.'**

*There is one domestic problem that all 1980 presidential contenders, including the incumbent, preach against: the disturbing decline in U.S. productivity. Not surprisingly, Japan, with its annual productivity growth rate of 11 percent, is held up as a shining example of "re-industrialization"—already a bipartisan buzzword for Campaign '80. The world has come to rely so heavily on the value and durability of goods*

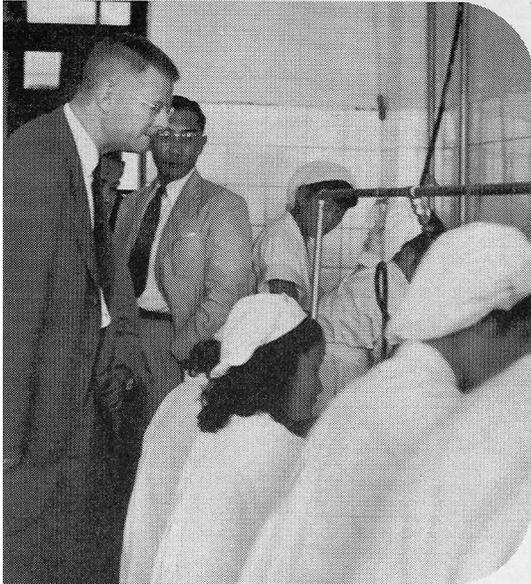
*"Made in Japan" that it's easy to forget that only 30 years ago the phrase was a joke, a synonym for shoddiness. W. Edwards Deming, an Iowa-born statistician with a Ph.D. from Yale, may deserve as much credit as anyone for the new image and performance of Japanese industry.*

*In 1950 Deming, then a professor at New York University, made the first of 18 trips to Japan to teach businessmen*

*his gospel of quality control and high productivity through statistical analysis. One indicator of his success is that today Japan's coveted annual award for industrial productivity is the Deming Prize, a silver plaque bearing the professor's tortoise-like profile. Deming, 79, has also advised companies in Taiwan, South Korea, Denmark, Hungary and West Germany, but until*

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**Photographs by Robert Sherbow**



"I was the only man in Japan who thought they could do it," says Deming, here with Tanabe Pharmaceutical workers in 1951.



A Nashua employee consults with Deming. An ardent defender of U.S. workers, he blames declining productivity on poor management.

IN HIS OWN WORDS

recently he was little known at home. Now, with the U.S.'s stagnant productivity (roughly defined as output per man-hour) contributing to both high costs and high prices, American companies are beginning to seek him out. William E. Conway, head of New Hampshire's \$600 million-a-year Nashua Corporation, hired Deming when Nashua decided to enter the copier business last year. "Basically," says Conway, "he told us to make it right the first time." Assisted by his mathematician wife, Lola, 74, Deming runs a consulting business from the basement of his Washington, D.C. home, where he was interviewed by Clare Crawford-Mason of PEOPLE.

**Japanese products were regarded as inferior when you first went there in 1950. How were they able to revolutionize their industry?**

They had a magnificent work force, unsurpassed management and the best statistical ability in the world. What's more, everybody was dedicated to the company, and everybody was dedicated to Japan. I put those forces together, and inside four years manufacturers all over the world were screaming for protection from Japanese imports.

**Why hasn't American industry adopted your methods?**

People here think a statistician

comes Monday morning, and by Friday night they're producing like the Japanese. They are not willing to commit to a long training program for all workers, as the Japanese did. And, to my horror, I have discovered that most American companies think they already have statistical control of quality. What they have is a lot of printouts full of irrelevant and out-of-date information.

**To boost productivity, isn't a great deal of capital investment necessary?**

No. If you don't understand how to run an efficient operation, new machinery will just give you new problems of operation and maintenance. The sure way to increase productivity is to better administrate man and machine.

**What is the relationship between declining productivity in the U.S. and inflation?**

Declining productivity and quality means your unit production costs stay high but you don't have as much to sell. Your workers don't want to be paid less, so to maintain profits, you increase your prices. That's inflation.

**How much of our productivity problem is the fault of workers?**

When I've asked managers this, the answer always is, "All of it." That is absolutely wrong. Research has shown that about 85 percent of the trouble is right in their own management—that is,

in the production system itself, for which they alone are responsible.

**What would be an example of a management-based problem?**

If the material is uniformly bad, that's the fault of management. A shoe manufacturer, for instance, asked me to help him because his operators were spending most of their time threading the sewing machines. In about 24 hours I had located the trouble. Management was buying cheap thread. To save 15¢ per spool they were losing \$150 per hour because the stuff required so much rethreading. They bought better thread, and the problem disappeared overnight.

**Are managers out of touch?**

Yes. The prevailing—and foolish—attitude is that a good manager can be a good manager anywhere, with no special knowledge of the production process he's managing. A man with a financial background may know nothing about manufacturing shoes or cars, but he's put in charge anyway.

**What can be done about ineffective management?**

For one thing, our business schools have to change. Their graduates get good economics, law, finance—overall

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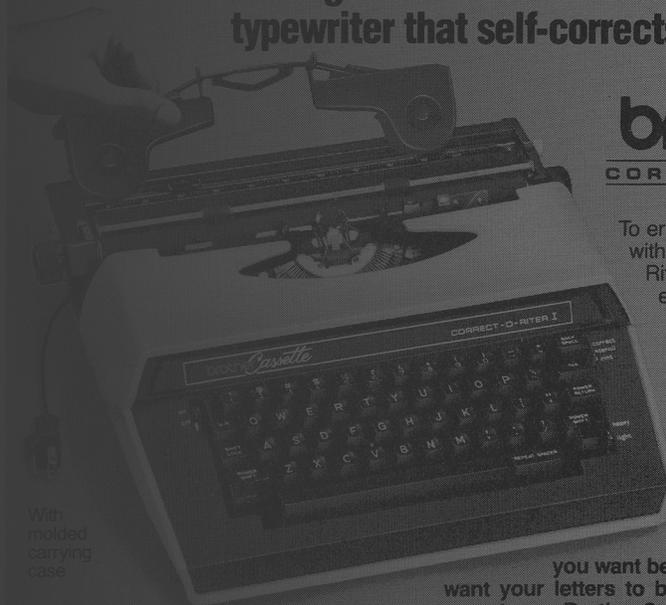


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a good education. But they don't teach statistical method in research and production. For instance, they don't teach the connection between what people need, the cost of materials and what can be produced economically.

### **Does job security affect productivity?**

In Japan a company worker's position is secure. He is retrained for another job if his present job is eliminated by productivity improvement. If a worker has an idea, he can present it to the president, and the door is always open. The worker doesn't have to worry about whether he'll have a job tomorrow; he doesn't have to try to please somebody or conceal problems just to keep his job. There's such a difference between working in a secure position and working in an insecure position.

### **Is job security the key factor, then?**

I don't know if it is, or if participation is. I've seen how deeply plant workers appreciate it when somebody recognizes and respects the storehouse of knowledge they accumulate day to day on the job. Giving people the opportunity to participate in improving the product pays off, because workers realize security isn't worth a hoot if the product is shoddy.

### **Does that mean that Japanese workers work harder than American workers?**

Japanese workers work *less* hard. They work smarter, not harder. They produce more with less and less effort as the quality goes up.

### **How exactly do you hope to achieve improved U.S. productivity along with improved quality of our manufactured goods?**

By using statistical methods to improve quality. Statistical analysis helps you stabilize the system so the product is the same today, tomorrow and thereafter. It helps you eliminate waste. By describing statistically exactly what is being done, the method locates problems, forces innovation and lets you measure your progress.

### **In simple terms, how does it work?**

I set up a control chart for each major section of the production line. The worker takes readings of the performance of the machine or of his own handwork and makes a very simple cal-

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## Clues from Chris

—CHRIS HALL

**Q** A few days after I shave my legs, they feel so rough, and if I shave every day, my legs get irritated. It's embarrassing when I go to the beach. Is there an alternative?

**A** Nair® is a terrific alternative. Nair is a hair remover. Goes on creamy, smells nice and takes off hair easily. It contains baby oil. Nair leaves your legs soft and smooth for days longer than shaving. So get out in the sun and show off your legs!



**Q** After I use my wet, sticky roll-on, I have to wait 10 minutes before I get dressed. Since I'm always in a hurry, this creates a sticky problem.

**A** Use Arrid® Extra-Dry Powder Roll-On. Since it contains powder, it goes on powder-dry and it helps you stay dry all day. You'll love the baby-fresh scent, too!



**Q** In high school I was called "Smiley" because of my pretty smile. I'm going to my 10th reunion soon. What can I use to keep up my image?

**A** Pearl Drops® Tooth Polish. With 2 special whiteners, it not only cleans, but polishes your teeth—to help keep them their whitest. You may not recognize anybody else, but they'll recognize you, Smiley!



*Chris*

IN HIS OWN WORDS

culatation—maybe a subtraction, maybe taking an average—to plot an upper-control limit and a lower-control limit, two parallel lines on a graph.

**Does this define the machine's normal range of reliability?**

Yes. As the machine keeps running, management only has to investigate and correct points that fall outside these parallel lines. Eventually, as the work is corrected at this signal, points will all fall between the lines, and statistical control is achieved. It's worth it, because unnecessary adjustments, which waste time and raise costs, are eliminated. The goal is predictable variation, which is very comforting to management.

**Isn't it expensive to troubleshoot the points that fall outside the limits?**

No, it's a matter of fine-tuning the system. Most of the time you can use the same machinery, the same raw materials, the same people. For instance, a Japanese pharmaceutical company I advised tripled its production of an acid in six months without any new capital investment.

**Can quality be assured through added inspections, as Chrysler is trying to do with its new K-cars?**

No, inspection does not build quality. You can't get ahead by making some defective products, and you cannot afford to separate the good from the bad. It's wasteful, and so raises the price the consumer pays. Moreover, inspection is unreliable. It doesn't weed out all the bad. The point is that if you make it right in the first place—using statistical methods of control—you don't have to test it.

**Which presidential candidate's platform do you think might best improve U.S. productivity?**

I'd rather not comment. I'm only a statistician. I don't want to be a jackass.

**Do we have the capacity to regain our momentum?**

It's nonsense to say we can't. We invented the laser and the transistor and developed the best communication system in the world. A nation that can accomplish these feats can do almost anything it sets its mind to. □

Deming's wife, Lola, 74, helps scrutinize quality control at home. After hours, he composes canticles and sings bass in church.

