

# Acknowledging International Differences

Interview with  
Dr. Leo Esaki,  
director of IBM Japan  
by Seitoku Ogura

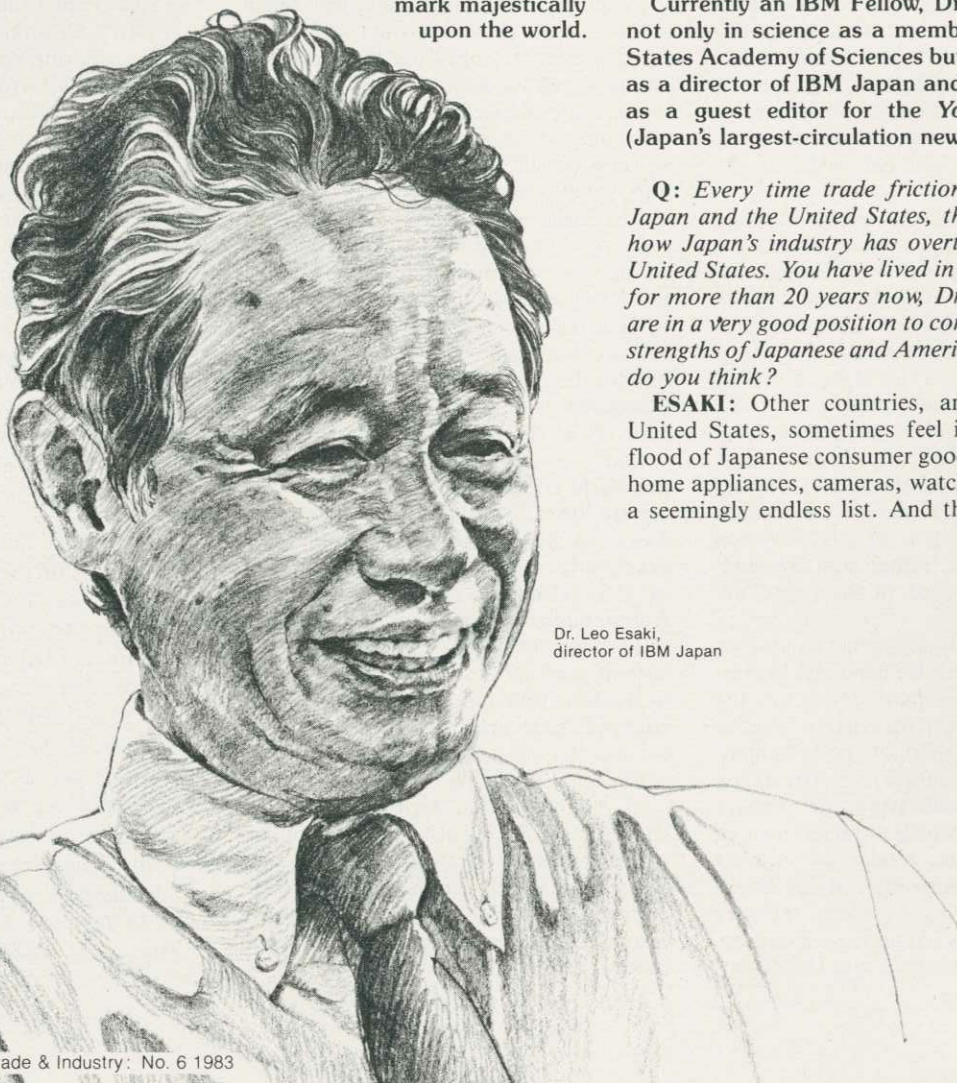
Shakespeare may have asked what is in a name, but there is an old Japanese saying that the name makes the man. Dr. Leo Esaki is a case in point. Born in Osaka in 1925, at a time when Japan was still largely an insular society, Esaki was given the name Leo from the Latin *leo* for lion. The lion, of course, is the king of beasts, and Esaki's father hoped this name would inspire young Leo to roar forth and make his mark majestically upon the world.

This he has done with distinction. It was as a senior researcher with Sony in 1958 that Dr. Esaki discovered the tunnel, or "Esaki" diode. That major discovery took him to IBM's Watson Laboratory in 1960, one of Japan's first "brain drain" scientists to go to the United States. In 1973, he shared the Nobel Prize in physics (with Ivar Giaever and Brian D. Josephson) for work which expanded the field of miniature electronics.

Currently an IBM Fellow, Dr. Esaki is active not only in science as a member of the United States Academy of Sciences but also in business as a director of IBM Japan and in public issues as a guest editor for the *Yomiuri Shimbun* (Japan's largest-circulation newspaper).

**Q:** *Every time trade friction erupts between Japan and the United States, there is talk about how Japan's industry has overtaken that of the United States. You have lived in the United States for more than 20 years now, Dr. Esaki, and you are in a very good position to compare the relative strengths of Japanese and American society. What do you think?*

**ESAKI:** Other countries, and especially the United States, sometimes feel inundated by the flood of Japanese consumer goods—automobiles, home appliances, cameras, watches, and more, in a seemingly endless list. And these products are



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generally of a very high quality, which leads people to conclude that Japan must be doing something right.

**Q:** *You mentioned that Japanese products were generally high-quality, but what are the specific qualities that you feel characterize Japanese products?*

**ESAKI:** Japanese products have a consumer appeal that American and European products seem to lack. There is nothing startlingly revolutionary about them, but they are well-made with meticulous attention to detail. At the risk of exaggeration, you could say that Japanese products are made with the consumer's convenience in mind and American products with the manufacturer's convenience in mind. In automobiles, for example, Japanese cars have only one-third the failure rate American cars do.

**Q:** *What do you think accounts for these differences?*

**ESAKI:** I think this stems from the different lifestyles in the two countries. Even though these are industrial manufacturers, they still reflect the two sets of national values, behavioral patterns and social mores.

Since Japanese life is so Westernized in appearance, including our political and economic systems and even our outward lifestyle, Westerners may be excused for assuming that Japanese have basically the same personal values as they do. This is especially true of Americans with their proclivity to underestimate the differences between peoples and their assumption that American society is the height of civilization and that everyone aspires to be American. Somehow, Americans have slipped into the habit of thinking that their Jeffersonian Declaration's assertion that "all men are created equal" means that everyone is the same and worships the same values.

Yet the differences are obvious to anyone who has done a lot of traveling back and forth and who is alert to them. Perhaps the most basic difference is the relative weight the two societies attach to the individual and to personal relations. Personal relations are much more important in Japan than they are in the United States.

**Q:** *What ramifications do these differences have for industry?*

**ESAKI:** In the United States, the organization is built around the talents of individuals; in Japan it more often happens that the individual adapts his attitude and behavior to the interests of the group. Politicians, businessmen, bureaucrats—they all think and work as groups. This collective-mindedness is more than an emphasis on teamwork. It is an internalization of group values as the primary values governing the individual's behavior.

In the Japanese company, everyone participates enthusiastically in group activities, and all contribute to attaining their shared goals. There is a strong element of cooperation within the group, and the whole is certainly more than the sum of its parts. Japan may well be unique in maintaining this high degree of group-mindedness in a modern industrial state. It is no accident that lifelong employment and seniority-based rewards—both features that are said to characterize Japanese business—encourage this group identification.

Attention to detail is another facet of this group

mode. People are quick to point out that traditional handicrafts reflect the personality of the people producing them, but I think if you look carefully enough you will find that modern industrial output also reflects the national personality of the country of origin.

**Q:** *It seems almost universal that consumers in the free marketplace will choose ingenious and distinctive products. Given this consumer preference, how do you account for the success which group-produced Japanese products have enjoyed in world markets?*

**ESAKI:** Functionally, there is not that much difference between the products of an individualist-mode society and the products of a group-mode society. Moreover, I do not agree that consumers are necessarily looking for innovative and distinctive products. They want things that are economical, reliable and easy-to-use. For example, if you produced a Josephson computer, it would certainly be distinctive, but would it sell? I doubt it—not until you could show that people would benefit from its possession.

**Q:** *Does that mean that reliability and usefulness are more important than creativity in modern industrial society?*

**ESAKI:** I would not go that far. But you can say that the group mode is extremely well adapted to producing reliable material goods. There has been considerable concern expressed in Japan that Japanese technology is somehow inferior to American technology. But I do not think the comparison is relevant. After all, you can only say that one is or is not inferior when the two societies are working in the same modes and social patterns. Japan and the United States are not.

This Japanese group mode seems to be of limited value in areas where individual creativity plays a decisive role—fields such as science and the arts. Likewise, the two countries' records in the natural sciences may be attributed to their different value orientations. I do not think you will ever produce an Einstein in a group-oriented culture. But when it comes to applying technology in the manufacture of products for the good of society, there the group mode shines. So the United States is very good in conceptual or pure sciences and Japan in the applied sciences. To say that one is inferior or superior is to miss the point of the comparison.

**Q:** *Does that mean that the trade friction between Japan and the United States or between Japan and Europe has its roots in our different social modes, and that it is going to defy solution until society changes?*

**ESAKI:** Despite all the talk about what is fair and what is not fair, Japan's accusers and defenders do not really seem to be talking to each other. Instead, each side simply lashes out when it thinks it has a good point, and each scores most of its debating points with its predisposed domestic public opinion.

These arguments are not going to solve anything unless Japan and the United States can agree on the rules of the debate and the values that they seek to promote. I think one of the reasons Japan seems to do so poorly in trade discussion is that it is too ready to accept American rules and American logic. Japanese culture has its own

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perfectly valid modes and these modes have led to the production of quality products. What is so unfair about that? There should be more room in this bilateral debate to acknowledge and accept the value differences between the two societies.

On a somewhat different plane, it seems to me that Japanese are too willing to tailor their own views on defense to fit the U.S. defense framework and military strategy. As long as you accept the underlying premises of the U.S. defense argument, you are bound to have problems defending Japanese conclusions. Japan must either accept U.S. conclusions as well as U.S. premises or get to work defining its own defense philosophy with premises to underlie its own conclusions. This is a far deeper problem than the question of, for example, how many fighter planes should be deployed in a given area. If a Japanese defense philosophy can be articulated consistent with current Japanese conclusions, then Japan will be in a position to argue that it is folly for the United States and the Soviet Union to spend upward of 5% of GNP on the military.

**Q:** *It is now a year since Hitachi and Mitsubishi were charged with receiving proprietary information stolen from IBM, and I wonder how you would assess the impact of that incident on the two societies.*

**ESAKI:** I suspect it was more of a shock for Japanese society than it was for most Americans. The Japanese press has emotionally reacted to this incident and given the impression that IBM applied unfair tactics, but the emotional aspects of the case will eventually pass. There still remains a strong perception that changes are needed in the way Japanese companies do business.

**Q:** *If the affair really did produce a realization that Japanese companies need to change the way they do business, it would follow that the IBM case was good, in the long run, for Japan-U.S. economic relations.*

**ESAKI:** I would not go that far, but I do think it has sparked a re-awareness of ethics in Japanese business. I believe that people reflected upon their conduct, i.e. stealing proprietary information of others.

**Q:** *There has also been speculation that Japanese companies were targeted in this entrapment because IBM was worried about the growing Japanese reputation for technological progress.*

**ESAKI:** Japan is doing many different things and trying many different approaches within its group mode. You can argue how high Japanese technological levels are in comparison with the United States, but on what scale?

Would this evaluation be based on products produced or by research capability? Japanese products certainly demonstrate a very high technological proficiency, and the Japanese have an obvious talent for applied industrial engineering. But I think the U.S. has the edge in basic research where innovation is more likely to be generated.

**Q:** *Even looking at commercial products, there is still a major gap between Japan and the U.S. in such areas as computer software, and this is sometimes referred to as Japan's Achilles heel. Do you think this disparity is inevitable?*

**ESAKI:** There are all kinds of software, and I find it hard to believe that Japan will not develop

a capability in at least some of them. Software is still a material product, and so it should be amenable to the Japanese group mode. Japan will probably emerge as a very formidable competitor in these areas.

**Q:** *Elsewhere you have argued that Japan will have to reform its entire educational system if it wants to close the creativity gap with the United States. What sorts of reforms do you think are needed?*

**ESAKI:** The one that comes to mind first is the university entrance exams. As now structured, they are designed solely to see how much the applicant knows and what he can do. It is almost as if you were testing out a new microcomputer. They are very standardized tests that you either pass or fail. But each individual is different and possesses different talents. It does not make any sense for society to test everybody against the same uniform set of specifications. There has to be more tolerance of individuality.

**Q:** *Yet even though it would not work in an individualistic society such as the United States, this system does seem to work given Japan's group mode context. You seem to be saying that Japanese education should be more American.*

**ESAKI:** American education emphasizes being able to analyze and think logically. It is a very individual-centered process, both for historical reasons and because education is seen as fundamental to democracy.

In Japan, learning is seen as largely an imitative process. Japanese education seeks to expose as many students as possible to as much information as possible. By contrast, U.S. education tries to stimulate the individual's intellectual curiosity and to enable the individual to learn for himself. In discussing education, however, one of the considerations has to be how you can effectively transfer technology to the population at large. This Japan seems to have done.

There are many people who fault American education for slighting the basics—especially mathematics—and I think U.S. education has to pay more attention to the basics. If you will permit me a military analogy, American education produces excellent generals, but a good army needs good privates just as much as it needs good generals. Although I think U.S. education is superior overall, there does need to be more attention paid to educating industry's privates.

**Q:** *From what you have said, it is easy to see how the surface trade friction is really a conflict between two different social modes and educational systems. Do you see any solution?*

**ESAKI:** I think the easiest solution would be for the United States and Europe to acknowledge the validity of other social modes and other value systems. Once these differences are acknowledged, a lot of the emotionalism can be eliminated and the problems will become much less intense. ●

*Seitoku Ogura is a correspondent for the Yomiuri Shimbun, specializing in high technology issues. He joined the newspaper in 1970 after graduating from Waseda University.*

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“More attention should be paid to educating industry's privates”