

## 随 想

## スチールと言って下さい

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Working at the research laboratories of the largest steel company in the world, I can safely say that employees at Nippon Steel are proud of their company. At a recent party, members of Nippon Steel lined up for a group photograph, and, to make us smile, the research director said "Say stee-eel". When that photograph was developed, we all looked very happy, in spite of rather stretched out smiles.

Although steel is still the mainstay of the company, it might be more appropriate now for the research director to have said electronics or new materials instead of steel, but that would have produced some strange facial expressions. As a British researcher in optics at Nippon Steel's Electronics R & D Laboratory, I am participating in the company's drive to develop new product lines unconnected with the steel business. The customs and methods of doing research here are quite different from those in Europe, and I will explain some of these differences in this article.

I started work at Nippon Steel three years ago at their R & D Laboratory 1. On the first day of work I felt rather nervous installing myself at a desk next to my supervisor in what seemed to be huge office full of people, with phones ringing every few minutes, and with the department head in the same room. I wondered how people could get their work done with such distractions. However, over a period of a few days I began to notice that the close proximity of other researchers has distinct advantages: communication between researchers is easier, phones always get answered and information circulates more quickly than in the European small office system. In Europe your status in a company is shown by the size of your office or by the thickness of your office carpet. In Japan this is shown by the size of your desk and by a badge you wear on your company uniform with your name, rank and section printed on it. For the rank of 'kenkyu-in' which I have, your chair has

armrests, but for people below this rank the chairs have no armrests. Perhaps the younger researchers are too busy to rest their arms. In fact researchers do seem to be more busy here. Casual conversations of a general nature seem to be less common. For example when meeting a colleague in the corridor it is rare to exchange more than a hasty greeting. On the other hand, people here make efforts to meet other members of the research group in an informal atmosphere after work. These gatherings, several times a year, always end up with a large proportion of pink, happy faces and the conversation becomes very frank and lively. This situation arises because your glass of beer or sake is continually being refilled.

In addition to being busier, people seem to work longer hours than in Europe. The ability of the Japanese to work longer hours is aided by a relaxed atmosphere at work towards basic human needs. For example there is no problem in having several green tea breaks in one morning if you wish. After going on trips people bring back gifts of sweets and cakes to the office. It is not looked down upon to eat instant noodles at your desk at lunch or dinner time. It is even not unheard of to shave or gargle in the office, and people are not offended if you fall asleep at meetings. In Europe falling asleep at meetings is the ultimate mistake. When concentrating at your desk a colleague may give you an unexpected shoulder massage to encourage you or show friendship. In Japan some things to avoid at all costs are being late for work, getting angry, or saying no too directly. With a bit of practice a Western researcher can easily get used these differences.

It is important to understand the Japanese concept of group harmony. People here go out of their way to avoid offending one another and to consider the other person's feelings. It is very pleasant to have the immediate cooperation of colleagues, who invariably answer positively when asked for help. In fact, to have a good attitude at the workplace seems to be as much a passport to success as actual research results. In Japan the ideal year-end personnel report on a researcher would include the comment "tries hard". In Europe attention is focused more on actual results than on effort. One way Japanese researchers show their

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positive attitude is to answer loudly and immediately when their boss addresses them, and may even run across the office when called.

One result of this group harmony is that complaints are rarely made. Before coming to Japan I was working in France, and I heard people complaining about something or other quite often. For example we had a canteen boycott in France to protest against price increases at the company canteen. I cannot imagine that happening here. However, I think that speaking out when you have a new idea or opinion is important, even if conflicts may arise. This is especially so for a research laboratory, where individualism should be encouraged.

Concerning the way research is carried out, research planning is very thorough here. Weekly reports require you to plan week by week, and longer term research proposals require you to think ahead over three to five years to imagine potential applications for your research. These proposals are required to obtain a budget and are very detailed, although in practice the course of research may deviate from what was planned. The funds available are plentiful, and we can buy what we need. This formalized planning may seem fastidious, but it helps you organize your research better and see where it is leading.

There is also a mass of paperwork to deal with everyday business. There are forms for just about everything: for purchases, for photocopies, for wrapping parcels, for attending a conference, for taking holidays, for entertaining guests, for repairing instruments, and even forms for getting new books of forms. Whereas this helps organize things efficiently, for a foreign researcher whose knowledge of Chinese characters is

incomplete, it can be confusing. However, I can improve my knowledge of Japanese in this way. The language problem made it difficult for me to appear a sensible human being at first. But learning at least spoken Japanese is important for even a short stay in Japan. In that way it is easier to fit into the Japanese way of life. When colleagues hear you making jokes in their own language they begin to trust you, and sooner or later someone will come over and massage your shoulders. Then you know you are settling in well. Even so, speaking English with your boss from time to time is useful to get your point of view across clearly and to avoid misunderstanding.

The working conditions here are excellent. We have a flexitime system with core time from 11 a.m. to 3 p.m. I am provided with company Japanese-style housing with straw matting. I try to preserve the Japanese flavour in my apartment with Japanese furniture and objects, but most of my colleagues probably prefer to decorate their homes in Western style. It is the older researchers who seem more interested in traditional Japanese things.

Steel is an international business but until three years ago there were no foreign employees at the Nippon Steel research laboratories. As Nippon Steel diversifies it is becoming more international, and this has a very positive effect on research. The interaction of people of different nationalities produces a stimulating atmosphere for discussion and creation of ideas. More Japanese companies should endeavour, as Nippon Steel has, to create attractive conditions for foreign researchers in Japan. I can certainly smile here without having to say "steel".