WHERE DO PROBLEMS COME FROM?

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THE ROOT OF ALL PROBLEMS, EVEN TECHNICAL ONES, is people. Someone is not satisfied with something. That someone could be ourselves, our customers, bosses, colleagues, friends, families and so on. The something could be any real or perceived shortcoming in present or anticipated status. Common examples include customer complaints, downtime, and profits.

Dissatisfaction need not be a bad thing, however. It is often the source of remedy, improvement and invention.

It is always important to consider a problem as a matter of perspective rather than as an absolute. Every person will view a problem differently, and this view may change with time. For example, one customer may love you and another leave you for the same quality level. This difference in the customer's threshold of acceptability may in part be due to differences in their equipment and application, but can also be cultural.

It is also common to see the threshold of acceptance of an individual customer change with time, so that what was once acceptable is no longer so. In fact, a consistent level of quality can lead to an unexpected and sharp reaction as the customer suddenly gets fed up. We have all seen similar behavior when our boss suddenly becomes concerned over a situation that has been present for years, perhaps because his or her boss decided enough was enough.

This is not to say, however, that people may not have some consensus on the importance of a problem. For example, an accident will universally be regarded as a present problem and a future challenge. Note, however, that the perspective of the operator, manager and legal department will be quite different. The operator may well empathize with the injured coworker, and be most concerned with saving his or her own skin (literally). The manager of the area will be sensitive to how the accident reflects on his or her ability to manage the area and may well be concerned with saving his or her own skin (job). The legal department will be most sensitive to testimony about the accident.

When faced with any problem, we must broaden the definition to include three aspects:

- what they *say* it is,
- what they *believe* it is, and
- what it *really* is,

In an ideal world, these three aspects would be identical and thus there would be no room for misunderstanding. However, the real world is not so neat, even with what appear to be purely technical problems. So what happens if your boss or customer believes the cause to be one thing, but physics later proves another cause? Now, you've actually got two problems: the physical problem that needs fixing and the interpersonal problem of persuading the boss to a new view. This lesson was learned at a dear price when Intel refused to acknowledge people's perception of a chip which had an obscure and relatively harmless math processing problem. This led to the most costly computer recall ever. We can make the same error if we assume that meeting a quantifiable quality specification will guarantee customer satisfaction, and vice versa.

This humanistic view of technical problems can be uncomfortable to the technically obsessed, but the saying "perception is reality," *IS* the reality. Thus, while it is important to understand the physical source of the problem, it is equally important to consider how it is viewed by various parties in order to be most effective in problem solving. Only then are we truly ready to remedy the situation, which include the following steps: *Define* (the problem), *Determine* (the options), *Decide* (the course of action) and *Do* (fix it). TJ

This is the first of a series of articles on industrial problem solving by Roisum who is a frequent contributor to TAPPI and is a columnist for Converting Magazine. *His second trilogy begins with a book titled "Critical Thinking in Converting," which will be available in early 2000.*

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