Risk = Hazard + Outrage

By Rolf Schmidt

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f you are the operator of an indus-
trial enterprise and you have upset
the local community or the public
at large – for whatever reason – there is
no point in trying to ‘educate’ them, or
worse, attempt to convince them that
they are wrong and you are right. By
defending your position, all you do is
inflame their anger. As Peter Sandman
explained in his keynote address, com-
panies that take this approach are talk-
ning at cross purposes with their irate
accusers.

A question of definition
The two sides don’t understand each
other because they don’t share the same
concept of risk, as is illustrated by sta-
tistical analysis: If we rank environ-
mental health risks according to the
number of people they kill and then
rank them again according to how
much they upset people, the corre-
lation is a mere 0.2. Dr. Sandman also
found that the same is true for any oth-
er risk, e.g. morbidity, ecological dam-
age, socio-economic damage, etc.

The reason for this dichotomy, says Pe-
ter Sandman, is that risk professionals
see ‘risk’ as ‘probability x magnitude’,
whereas for most people ‘risk’ means
‘outrage’. By redefining ‘probability x
magnitude’ to mean ‘hazard’ (instead
of risk), we can couple risk with the
more comprehensive concept of ‘haz-
ard’ plus ‘outrage’. “Experts”, Peter
Sandman told his audience, “focus on
risk (hazard) and ignore outrage, there-
fore they systematically overestimate
risk when the hazard is high and out-
rage is low, and they systematically un-
derestimate risk when the hazard is low
and outrage is high.”

Outrage and hazard perception
The public does just the opposite; they
overestimate risk when outrage is high
and the hazard is low. Thus, when out-
rage is high, i.e., when people are angry
and frustrated, they tend to perceive
the hazard to be high – whether it is or
not. Alternatively, when outrage is low,
people perceive the hazard to be low
too. This strong causal link between
outrage and the perception of hazard
creates a dual task for risk managers:
On the one hand they have to manage
hazards but they also have to manage
outrage: “If you want people to take
you seriously [when the hazard is high
and outrage is low] you must increase
their outrage.”

As Peter Sandman suggested, outrage
and hazard perception takes on differ-
ent forms; and it’s not always the mis-
guided public who gets it wrong. The
very people (senior managers) who are
likely to view the public’s attitude to
risk as misinformed or even subversive,
may, as it were, find themselves on the
other side of the fence. “Imagine you
are having a quarrel with your partner
over where to have dinner: will it be
Chinese or Italian. After some time
each thinks the other is acting like a
jerk. Do you think a good way to deal
with the situation is to present your
partner with data on the relative (nu-
tritional) merits of eating Chinese food
– and thus prove to her that she is a
fool; will you be having a pleasant
evening?” Telling people they are
wrong doesn’t work, no matter who
they are or what the situation is.

Persistent nagging, or “excessive out-
rage”, doesn’t work either. To illustrate,
Peter Sandman recalled the childhood
experience of constantly being told by
(over)cautious parents: “don’t do this,
don’t do that”; in effect bombarding
the offspring with unwelcome safety
warnings. Such memories could easily
be rekindled by an overzealous “Zurich
Outrage also happens to company executives when making strategic decisions and when dealing with their own staff. For example: “Why”, Dr Sandman asked bluntly, “are CEOs not noticing the economic benefit of not killing their employees?” Because many senior managers harbor “a lot of hostility towards their workforce. Indeed, outrage seems to get right into some people’s sub-consciousness; so much so that some CEOs will suppress the need to take action on, for example, safety, because they see discussions on safety issues with lower management as a threat to their own self esteem; or they don’t want to feel bad about not having done anything the year before! “. It is psychologically more comfortable to consider past accidents as unavoidable.

Making risks smaller
In the public/industrial arena, one way of reducing outrage, suggests Dr. Sandman, is to make risks more voluntary. Securing people’s permission might lower their outrage. And by appeasing the public you are also more likely to keep legislators at bay. Because “when people are outraged, regulators over-regulate hazards. They are not allowed to regulate outrage, and they are not allowed to make you apologize, so they make you put in expensive equipment instead, which costs more than apologizing, but it’s within their mandate.”

A little bit of humility, it seems, will go a long way: “Making risks more voluntary won’t reduce the hazard but it will make it a smaller outrage and therefore a smaller risk and [thus] lead to fewer lawsuits, fewer insurance claims, lower levels of controversy – and lower levels of regulation.”

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