GETTING THE MESSAGE THROUGH

Emmy L. A. Roos
Roos Communications, U.S.A.

ABSTRACT

At first glance, communication doesn't seem to be too difficult. After all, all you need are the four basic ingredients – a sender, a receiver, a message and a channel–and all you have to do then is send that message through the right channel to the receiver.

Unfortunately, the fact that communication often fails is the sad proof that it is a little more complicated than that. Noise in the channel that creates preconceptions on behalf of the receiver can destroy the process.

This paper explains what you really need to do to get that message through, to make your communication process successful.

FRUSTRATION...

It can be very frustrating when your five-year-old kid asks you why the cat died and you tell her everything about life, death and about heaven if you like, and when you ask whether she understood, she says, "yes, but when is the cat coming back ?"

It can be equally frustrating when you ask an engineer what time it is and he starts telling you everything he knows about the mechanisms of a watch, in the past, present and future, wrist watches, grandfather's clocks, clock radios–and after 15 minutes you still don't know the time.

If we look at how the nuclear industry is doing at communicating with the public, there's good news and bad news: the good news is, we've been a lot worse; the bad news is, we seem to think we're good enough. Just because we finally have started talking, doesn't mean we are actually communicating. Just because we are capable of preaching to the choir – a very limited group of the public that is already interested in nuclear energy, and that very often has a scientific background – doesn't mean that we have solved our communication problem. There is still a big silent majority out there that is not interested at all – and they have a good right not to be interested – and they are absolutely not inspired by the bombardment of facts and endless details the nuclear industry is so proud to talk about. For that majority, our communication is still failing. The deteriorating image of the nuclear industry in most parts of the world is sad proof.

If communication fails, we cannot–as we very often like to do in the nuclear industry–blame the negative attitude of the receiver or the outside noise from organizations like Greenpeace, because these factors should be taken into account in the communication process.

If communication fails, it is because we don't know how that process works, it is because we don't see communication as a science that requires a certain feeling for, and a lot of knowledge about communicating, just like nuclear science requires a certain feeling for, and a lot of knowledge about nuclear engineering.

Let me give you a real-life example of the nuclear industry way of "talking" about radioactivity.

One day, I was looking up the word "radioactivity" in a brochure that was published for the general public and this is what I found:

> "De eigenschap van *radionukliden* om spontaan *ioniserende straling* uit te zenden. De radioaktiviteit staat altijd in verband met de hoeveelheid van een *radionuklide* en vertegenwoordigt het aantal

desintegraties van deze hoeveelheid per tijdseenheid. De eenheid van radioaktiviteit is de becquerel, symbool Bq. Een becquerel komt overeen met een *desintegratie per seconde*. De vroegere eenheid was de curie, symbool Ci."

You probably don't understand a word of this definition because I wasn't "communicating", I was "talking" in my own (Flemish) language – just like technical people very often talk in their own (technical) language – assuming that the public is smart enough to understand that language.

Or, to explain the readability of this sentence in another way: in order to understand this one word "radioactivity", the poor public would have to look up a definition of the italicized words since they are not part of the standard language. Explaining radioactivity by talking about "radionuclides", ionizing radiation" and "disintegrations per second" is too complicated to be true. Why should the public settle for a complicated truth if there are other sources that give a simpler one: sources that actually "communicate"?

When looking for an example of "communicating" about radioactivity, I am forced to quote what anti-nuclear groups say about it, in a very visual way. They say "radioactivity kills". They have more information available for those who are interested, but the largest part of the public won't make the effort to look for more information. That part of the public "knows" that radioactivity kills and not that "radioactivity is always related to the quantity of a radionuclide and that it represents the number of disintegrations of this quantity per unit time".

"Radioactivity kills!" You might think this anti-nuclear statement about nuclear energy is not acceptable because it's not entirely true, and that it depends on how much radioactivity we are talking about. But whether what they say is exactly true or false, is not the issue, because we live in a free world with freedom of opinion. The issue is to make the public *perceive* your message as the truth. This is a survival of the fittest in which only the best trained players survive. And as long as the nuclear industry keeps using amateurs, it is bound to lose its battle against the "Olympic caliber" professionals the anti-nuclear world works with.

...ABOUT COMMUNICATION

Studies on communication go back a very long time. Aristotle was the first scientifically grounded theoretician in speech communication, who – already in the 4th century BC – studied the techniques and functions of persuasive communication (Fauconnier, 1986). In one of his studies he stressed the influence of not only external (socio-cultural) context but also of intrinsic factors (the quality) of successful persuasive communication.

His ideas can still be found in the modern definitions of communication (Fauconnier, 1990). They all, more or less, come down to the same idea (Figure 1). Communication is a process by which a sender sends a message through a channel to a receiver, taking into account the socio-cultural noise that might influence his message before it reaches the receiver. The key to success in this communication process is the sender. He has to be able to use the proper channel, to know the receiver's interest, attitudes and knowledge, and to take into account the noise from the socio-cultural context that might disturb the process.

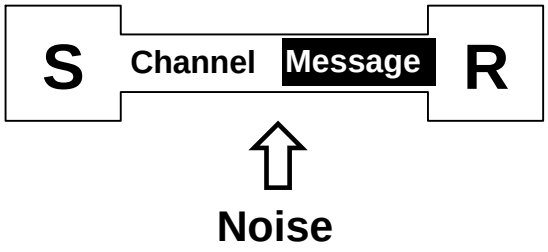

Figure 1

To know your Receiver...

The sender, therefore, has to be more capable than just being able to talk smoothly. He has to know what the public's level of knowledge of, and interest for the subject is: what makes the receiver tick – or better still – listen to, and comprehend his message. The receiver's attitude will define the persuasive level of his message, the receiver's knowledge defines the content and the receiver's interest defines the form of the message. The public's knowledge, interest and attitude will then define the most appropriate channel to use. It can range from oral presentations, through written brochures, video-productions, plays, games, to exhibitions. It is up to the sender to find out which one is more useful for the specific message he wants to send to a specific public. Remember, there is no such thing as an uninterested public, there is only an uninteresting sender.

Let me give you an example. Not so long ago, I bought a car and I received a nice booklet, which explained "everything I always wanted to know but was afraid to ask" about my car. Although I use that car every day, I haven't even thought about reading the booklet, because I'm simply not interested in cars. I know I really should read the booklet, because the only thing that is lower than my interest level in cars, is my knowledge level of cars. Car dealers know this, however, because besides the booklet, they also distribute audio- or videocassettes, containing maybe less detailed information, but still enough to cover the basics. I actually put it on when I was driving my car and listened to it. The car dealers do more than talking, they are communicating. They adjust the threshold of understanding to the level of interest and knowledge of their public. Doing this, they can get their message through to that part of the public that isn't interested.

...is to Deal with Noise...

The sender also has to know what is going on in the real world, what external noise or other messages currently influence his communication process and/or create preconceptions in his public's mind. He then can directly or indirectly reply to other statements or preconceptions, or at least have answers ready for issues that his public might have heard about from elsewhere.

Let me illustrate this by telling you a true story.

One of my father's colleagues took a day off to enjoy a day in a wildlife park with his wife and kids. This was one of these parks where you drive through with your own car. They were all having a good time, passing lions, zebras, giraffes, etc. – until there was this elephant. He walked up to them, so they stopped the car. No sooner had they done that, than the elephant lifted its leg and placed it on the front of the car. I guess as soon as the elephant realized this move didn't really please the people in the car–or as soon as the elephant got tired of having its leg on the car - he went away, leaving the car badly damaged. The family decided to leave the park as quickly as possible, because, let's face it, this sort of thing puts kind of a dent in your day. However, since all of them were quite shocked by what had happened, the father stopped at a

restaurant for a meal to recover a little. He ordered a bottle of wine, to split with his wife because they both felt a bit shaky. After they had the meal and the wine, they felt a lot better so they headed home. After about a few kilometers, they were stopped by a police car that had noticed one of their front lights wasn't working. The police officer walked up to their car and asked what had happened. The father looks at him and says: "Well, you see officer, an elephant stood on it!" The officer pulled the driver out of the car for an alcohol test. Unfortunately, the father had just finished half a bottle of wine, so the test came out positive and he ended up in the police-station, as a drunken fool, when he was really just a father taking the kids and wife out for a day in the park. I admit, the poor guy had an off-day, but when he told the police officer what had happened, he didn't realize that his public, the police-officer, had a preconception about this situation and an elephant standing on his car, was not part of that preconception. What mattered here was not whether that message was true or not, but how the policeman perceived it.

...before Sending a Message...

The golden rule for the message itself is to keep it short, simple and exciting, whatever the subject or the public:

- short, because the human attention level is short,
- simple, because although you might have put a lot of thought in your presentation, the public is hearing, reading or watching it for the first time, so bombarding them with technical terms, will only prove one thing: that you're a lousy communicator, and that is how they'll remember you, and
- exciting because the more exciting your presentation is, the more chance you will have to have the public share your excitement or at least remember it – thereby sharing, or at least, remembering your message.

One day, I heard an engineer use the phrase: "There is some level of lack of specificity in the process"., and what he meant was "It's vague". This statement was too long, too complicated and too boring. It has "some level of lack of proper application of communicative efficiency", or to put it in English: "it's a communication disaster".

...through the right Channel !

In choosing a channel, the nuclear industry unfortunately has very little imagination. Brochures, videos, lectures are cute, but have very little effect for an uninterested public. Let's have a look at a few practical examples of exciting ways of speaking to the public.

[1]WIN-Belgium stands for Women in Nuclear in Belgium, an organization that focuses on informing the public about nuclear energy. This group set up a communication project to speak to mainly women's organizations in Belgium.

These kinds of organizations usually have monthly meetings where they gather for coffee and a chat. They usually invite someone to talk about a topic that interests them, such as baking or knitting. Nuclear energy wasn't really in their top-10 list. Being Vice-President of the WIN group at the time, I could convince a women's organization president to give us a chance, but we knew we were dealing with an audience that had a very low interest and knowledge level about nuclear energy.

Knowing this, the WIN group needed to find a channel that would make talking about the nuclear issues amusing and stimulating. They therefore set up a nuclear quiz. The main reason they opted for the quiz, is because it is amusing and stimulating even if the subject of the quiz is not. And of course, it's even more fun to win, so everyone really takes part and listens to what you have to say. Finally, it creates the

[1] WIN Belgium - Women In Nuclear Belgium - is a women-to-women nuclear information group

opportunity to speak to the public, because asking questions yourself, makes them feel more comfortable in asking questions too and therefore overcoming “false truths”.

To find out what issues the quiz would tackle, they first did some research among women of all backgrounds and education to find out what their concerns were regarding nuclear energy. The four most important concerns turned out to be radiation, functioning of a nuclear power plant, waste treatment and the health effects of radiation.

Four members of the WIN group were to do the presentation. We first explained how the quiz was to be organized: the group of about twenty women would be divided into five groups of four and each group would have the same questions to answer. Groups made them feel stronger and more comfortable (especially since we were talking about a subject most of them hardly knew anything about) and, therefore, allowed them to have some fun in the group. Everyone was allowed to interrupt the quiz if they wanted to ask us some additional questions.

We first introduced a topic and then made it interactive by asking them a few, carefully chosen questions, such as:

Where do we find radioactivity ?

a) in nuclear power plants
b) in nuclear power plants and in hospitals
c) everywhere

Radioactivity has existed always and everywhere, but when was it discovered ?

a) 5 years ago
b) 100 years ago
c) 2000 years ago

Which of the following sayings is right for Belgium ?

a) all kinds of radioactive waste are dumped in the sea
b) in the past, all kinds of radioactive waste were dumped in the sea, now only low radioactive waste is dumped
c) in the past, low radioactive waste was dumped in the sea, now no waste at all is dumped

In asking questions like these, we got rid of wrong ideas that exist about nuclear energy, like “radioactivity is caused by nuclear power plants” or “waste is dumped in the sea”

Other initiatives here were word-games and dress-games (the way to a woman’s heart!). One of the word games consisted of a number of words that could be put together like a jigsaw puzzle. The idea was to put the words in the order they would appear in the functioning of a nuclear power plant. When they turned the puzzle around at the end of the game, a picture of a nuclear power plant would appear. These kind of games made the women more familiar with the words related to a nuclear power plant and gave them a better idea of what each word meant.

For the dress-game, the women had to go through the procedure of putting on protective clothing to enter protected areas in for instance a nuclear power plant, or different sorts of nuclear waste would be shown and the women had to put on the right protective clothing for each type of waste. In this way they could experience what safety measures were taken for the employees and it made the nuclear industry look more human.

We found out that after a few questions, the public started asking us a lot of questions too. They completely opened up and overcame their fear of talking about nuclear energy. The results of the quiz were

in the end quite good: between 70 and 90% correct answers. The questions weren't very difficult, but that wasn't our primary goal, our primary goal was to make them think about nuclear energy and get rid of "anti-nuclear myths".

Schoolchildren are another challenging core public.

In working for a MOX[2] (Mixed Oxide) production plant , the challenge was to find an exciting way of explaining how MOX fuel was made. As most of you might know, the production of MOX fuel is performed in gloveboxes in a secured area, where the general public is not allowed. The MOX fabrication process is, therefore, difficult to explain because the public cannot really see what is going on inside the plant.

In order to explain what the plant is doing and why it is useful to have that plant there, we built a replica of a glovebox, that we could take to schools. This allowed the kids to experience for themselves how MOX is made, what the dangers are and how employees are protected from those dangers. The pupils imitated the MOX fabrication process themselves, which made it a lot easier for them to comprehend how it is done, and certainly a lot more interesting than just listening to a lecture. This glovebox was first tried out at an energy exhibition that was visited by a lot of schools. This turned out to be the way to get school children's attention. They were attracted to the glove box and the protective clothing and they asked questions while they were trying things out. They learnt about MOX fuel playfully.

CONCLUSION

In the nuclear industry we comfort ourselves with the idea that we *do* communicate to the public but that very often these communication efforts fail because of a negative attitude of the public and/or misinformation that is given by green organizations like Greenpeace. These arguments, however true, are not an excuse for failed communication, because in a good communication plan, these issues are taken into account.

If the nuclear industry wants a future, it needs to take a step back and reconsider its communication efforts, and focus on the real reasons why the nuclear world has difficulties in getting its message through.

REFERENCES

Fauconnier, G. 1986. Algemene Communicatietheorie: een overzicht van de wetenschappelijke theorieen over communicatie. Vol. 1, p 21. Martinus Nijhoff.

Fauconnier, G. 1990. *Mens en Media*. Ch. 2, pp 33-38. Garant.

Axtell, Roger E. 1992. Do's and Taboos of Public Speaking: How to Get Those Butterflies Flying in Formation. John Wiley & Sons, Inc.

KEY WORDS

Communication - quiz - interactivity - readability - preconception - competition.

[2] MOX - Mixed Oxide Fuel, a mixture of uranium and plutonium that is used as fuel in nuclear power plants