



RISK PERCEPTION and COMMUNICATION in OHS

Murat Can Ocaktan, PhD

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Ankara Univ. Medical School

c/o Prof. Dr. Ahmet SALTİK MD, MSc, BSc



RISK PERCEPTION-1

Definition:

Belief (whether rational or irrational) held by an individual, group, or society about the chance of occurrence of a risk or about the extent, magnitude, and timing of its effect(s).

<http://www.businessdictionary.com/definition/risk-perception.html#ixzz3CQJi5e00>

RISK PERCEPTION-2

Everybody is surrounded by potential threats at all time.* *(and at evrywhere..)*



*:Explaining risk perception: An evaluation of cultural theory; Oltedal et al

RISK PERCEPTION-3

Risk is related with:

- Thoughts,*
- Beliefs,*
- Constructs (a huge concept which is built up by simple ideas & observations)*

RISK PERCEPTION-4

- ***Risk perception*** is a highly personal process of ***decision making***, based on an individual's frame of reference developed over a lifetime, among many other factors.
- A body of research from the past several decades makes it clear that when it come to making decisions about ***health and safety***, we don't always worry the most about the most pressing threats.
- Risk consultant David Ropeik calls this the ***"risk perception gap"***

RISK PERCEPTION-5

- On the surface, this risk perception gap may appear to be a result of ignorance.
- Experts from University of Oregon say that, «..*in fact, it's a natural extension of our hard-wired ability to quickly size up threats, an ability that draws on much more than facts alone.*»
- Some experts say that the older view is that the public is **emotional** and hence **irrational**.
- Emotions are an extraordinarily sophisticated form of intelligence.

RISK PERCEPTION-6

- According to a scientist who conducts *risk assessments*, the definition of risk is “hazard times exposure equals consequence.”
- But to the average person, the definition of risk is “***the probability of something bad happening.***”
And risk communication does not always account for the subjectivity of “***something bad.***”

FACTORS of RISK PERCEPTION-1

- **Trust vs. lack of trust:** The more we trust the people informing us about a risk, the less afraid we are.
- **Imposed vs. voluntary:** We are much more afraid of a risk that is imposed on us *(the driver in the car next to us using his cell phone)* than when we voluntarily expose ourselves to the same risk *(we are using a cell phone while we drive)*.

FACTORS of RISK PERCEPTION-2

- **Natural vs. human-made:** If the risk is natural, such as radiation from the sun, we are less afraid. If it's human-made, such as radiation from nuclear power or some industrial process, we are more afraid. This factor helps explain excessive public fear of pesticides and industrial chemicals.
- **Catastrophic vs. chronic:** We tend to be more afraid of things that can kill a lot of us, suddenly and violently and all in one place, such as a plane crash, than things like heart disease, which causes hundreds of thousands more deaths, but one at a time, over time, and not all in the same place.

FACTORS of RISK PERCEPTION-3

- **The dread factor:** The worse the outcome from a risk, such as being eaten alive by a shark, the more afraid of it we are. This helps explain our excessive fear of carcinogens or potential carcinogens. Cancer ranks high on the dread scale.
- **Hard to understand:** The harder a potential risk is to understand—such as nuclear power or industrial chemicals—the more afraid we are likely to be. And when the risk is invisible, the fear gets even worse.

FACTORS of RISK PERCEPTION-4

- **Uncertainty:** This is less a matter of the science being hard to understand and more a matter of not having enough answers. This factor explains widespread fear of new technologies and why, as the answers come in (*artificial sweeteners, silicone in breast implants, electrical and magnetic fields*), fear goes down.
- **Familiar vs. new:** When we first encounter a risk (*West Nile virus as it spreads to new communities*), we are more afraid than after we have lived with the risk for a while.

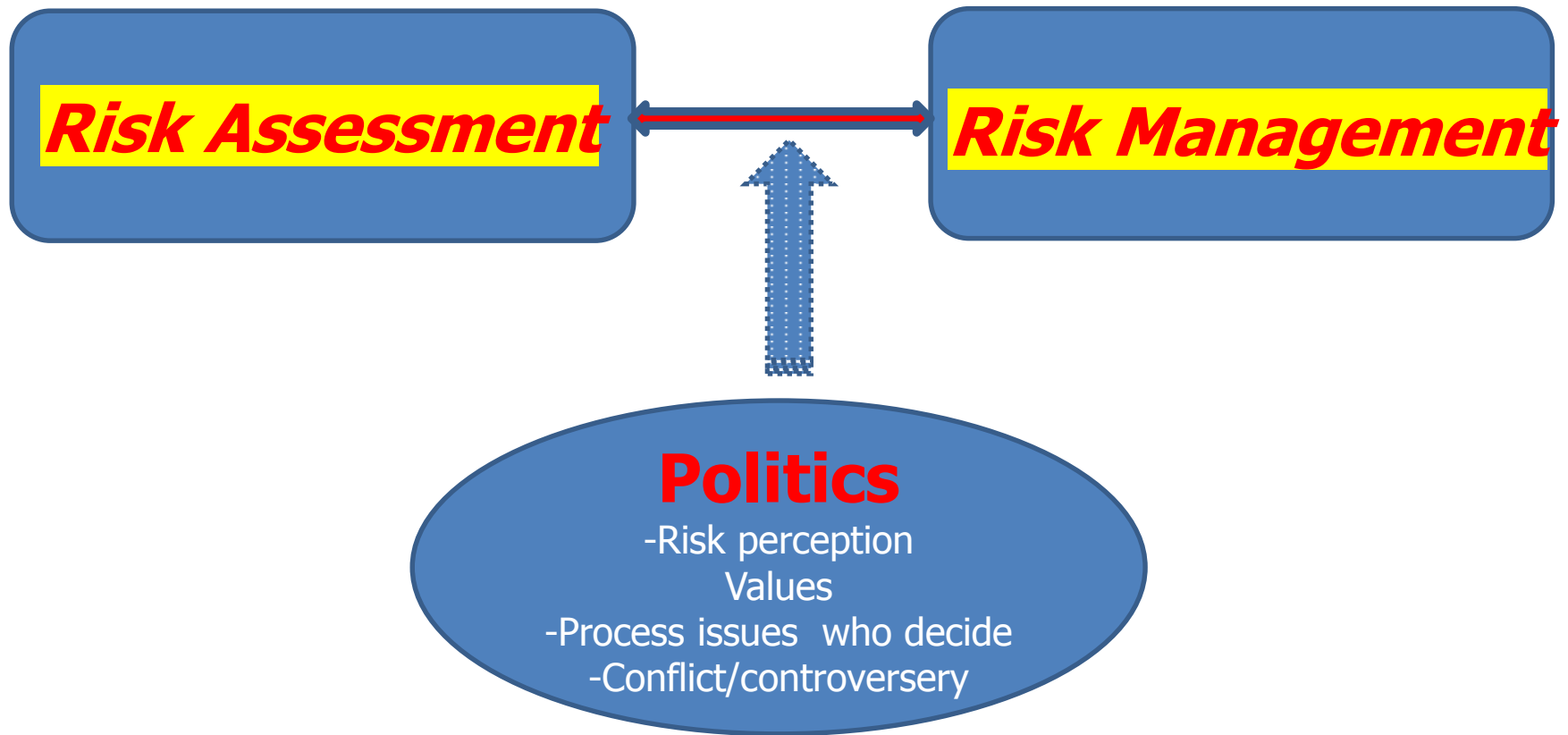
FACTORS of RISK PERCEPTION-5

- **Awareness:** When the news is full of stories about a given risk, like ozone depletion, our fear of that risk is greater.
- **A known victim:** A risk that is made real by a specific victim, such as the recent child abductions making news, becomes more frightening, even though the actual risk may be no greater than it was before it was personified by this victim.
- **Future generations:** When kids are at risk, our fear is greater. Asbestos in a workplace doesn't frighten us as much as asbestos in schools.

FACTORS of RISK PERCEPTION-6

- **Does it affect me?:** We don't perceive risk to "them," to society, as fearfully as we do risks to ourselves. This explains the desire for **zero risk**. A person doesn't care if the risk of cancer from pesticides on food is one in a million, if he or she could be that one.
- **Risk vs. benefit:** The more we perceive a benefit from a potentially hazardous agent or process or activity, such as drugs or vaccines or skiing or bungee jumping, the less fearful we are of the risk.
- **Control vs. no control:** If a person feels as though he or she can control the outcome of a hazard, that individual is less likely to be afraid. Driving is one obvious example, as is riding a bike and not wearing a helmet.

RISK PERCEPTION-1

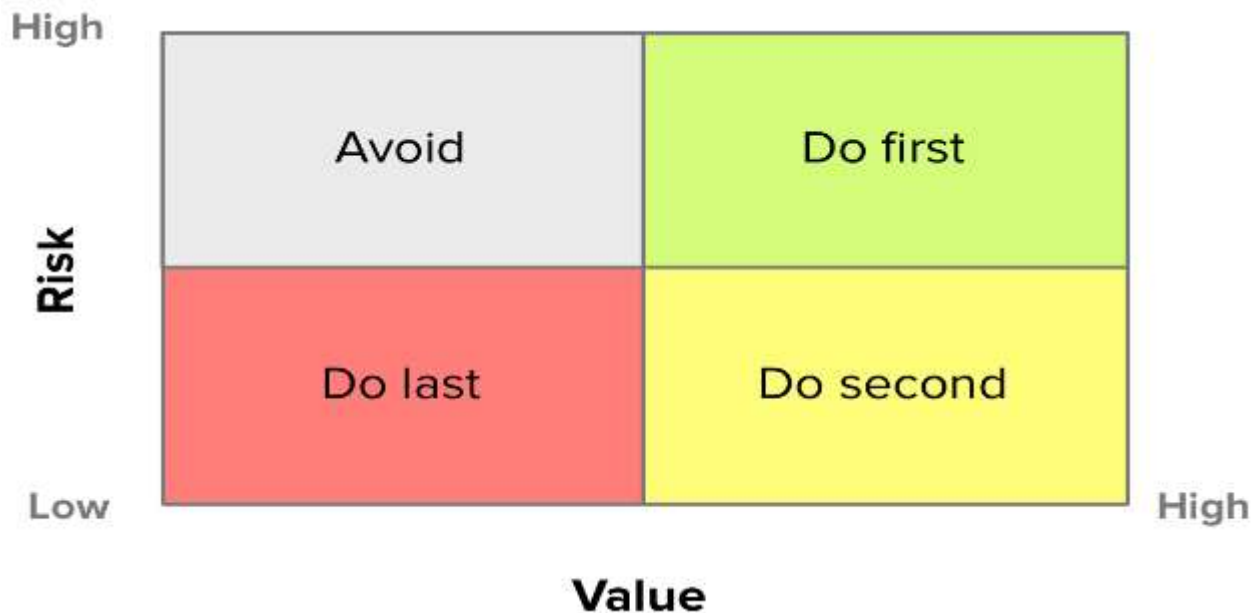


RISK PERCEPTION-2

- Perception of risk goes beyond the individual, and it is a social and cultural construct reflecting values, symbols, history, and ideology.
- It follows from the specificity and variability of human social existence that it should not simply be presumed that scores and ratings on identical instruments have the same meanings in different contexts.
- It is claimed that **“the starting point of any theory of risk must be that everyone willingly takes risks”**.
He concluded that this was not in fact the starting point of most of the literature on risk.

RISK PERCEPTION / PRIORORIZATION

Activity/Techonology	Women	Uni. Students	Experts
Nuclear Energy	1	1	20
Vehicles	2	5	1
Guns	3	2	4
Smoking	4	4	2
Motorcycles	5	6	6

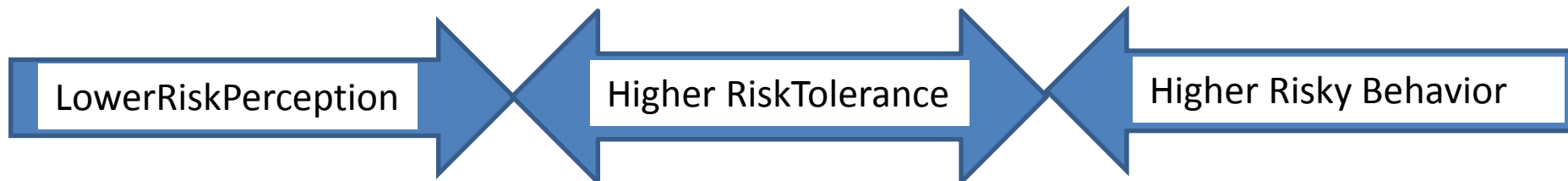


RISK PERCEPTION-1

- A scientific research in Sweden showed that interest in risk management and an awakening of interest in the question of how people perceive, tolerate and accept risks.
- ***Risk perception*** came to be seen as an obstacle to rational decision making, because people tended to see risks where there were none, according to the experts.
- The conflict between expert and public risk perception is at the basis of the social dilemmas of risk management

RISK PERCEPTION-2

- Risk perception is the ability of an individual to discern a certain amount of risk, and risk tolerance refers to a person's capacity to accept a certain amount of risk. These two concepts, while unique, are very much linked.
- Many of the theories presented in the literature review postulate that inability to accurately perceive risk may lead to higher risk tolerance levels, which can encourage high-risk behavior.
- Other theories posit that the causal flow could go in the opposite direction, with habitual engagement in high-risk behavior leading to higher risk tolerance levels and lower risk perception ability.



RISK PERCEPTION-3

Differences between ordinary people and expert:

- Ordinary people judge the risk due to event happens or not...
- Ordinary people believe own intuitively
- Experts use «what if» scenario...
- Ordinary people look at risk broadly, expert examine narrowly...

QUALITATIVE RISK CHARACTERIZATION

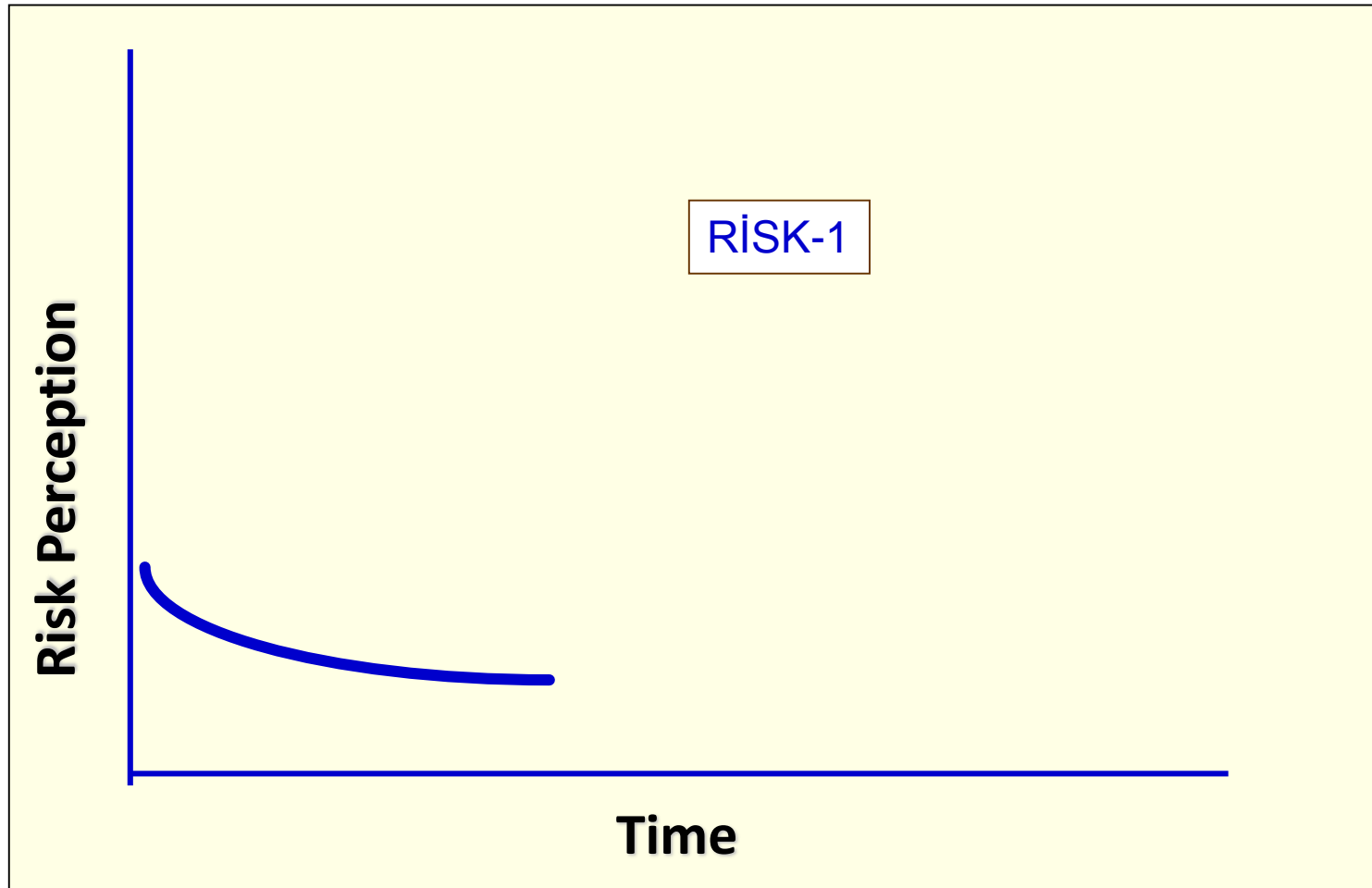
- **Habits,**
- **Control situation of risk,**
- **Severity,**
- **Knowledge level of the person**



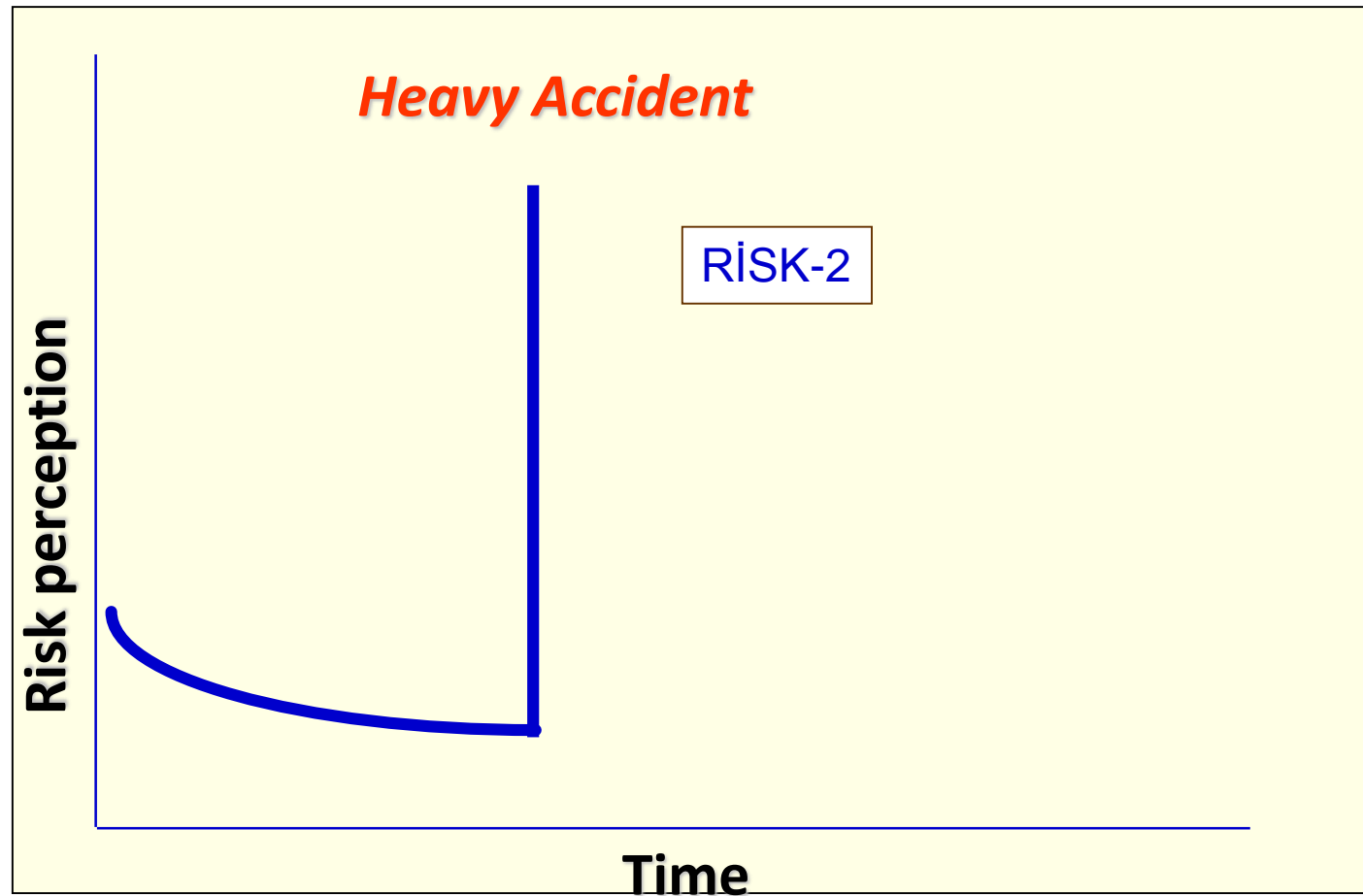
RISK PERCEPTION

- Understanding the determinants of risk perception may give insight about efficient countermeasures to reduce the number of accidents.

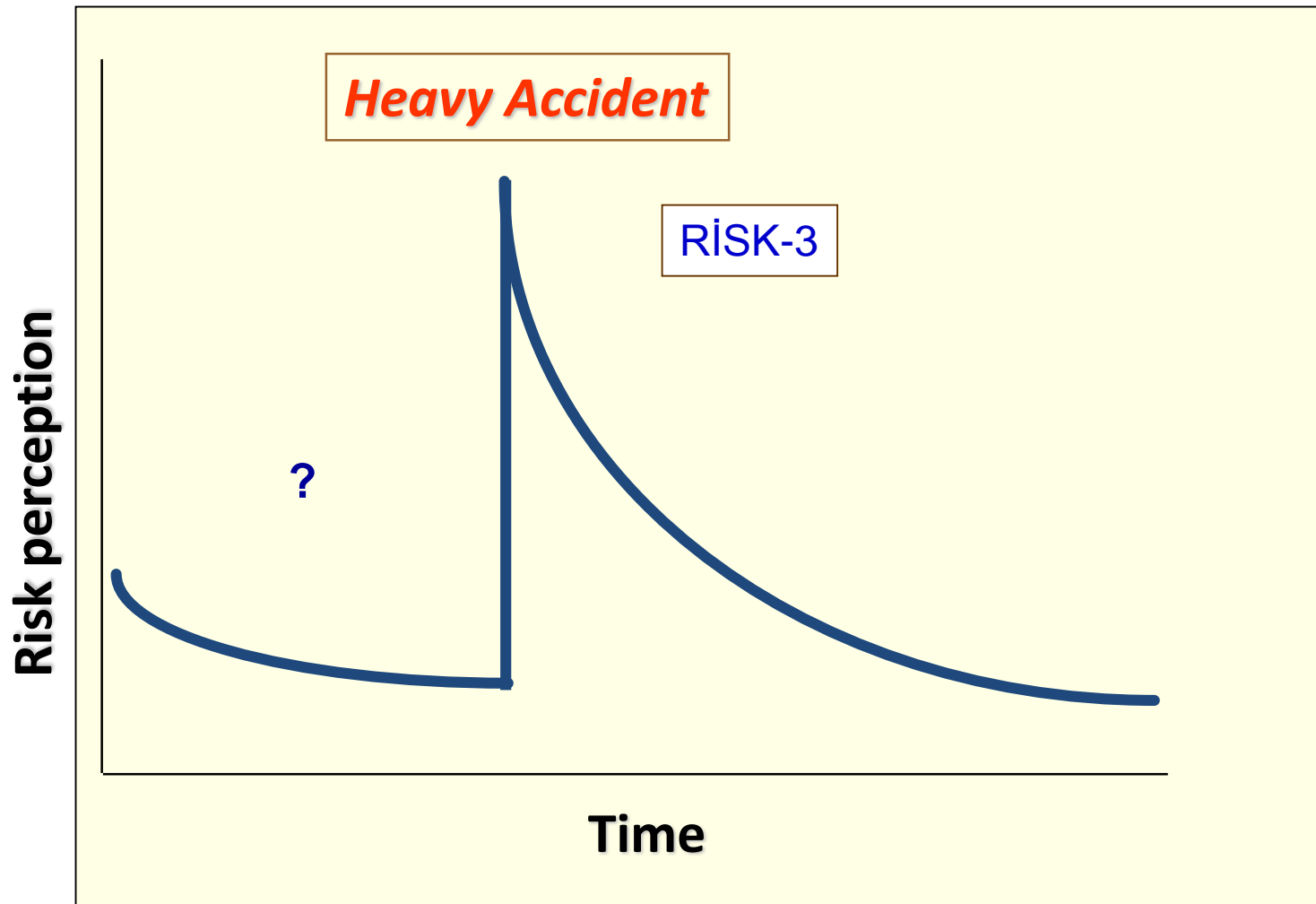
RISK PERCEPTION



RISK PERCEPTION



RISK PERCEPTION



RISK COMMUNICATION



RISK COMMUNICATION-1

Definition of communication:

communication noun

com·mu·ni·ca·tion | \ kə-,myü-nə-'kā-shən  \

Definition of *communication*

- 1 **a** : a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior
 // the function of pheromones in insect communication
 also : exchange of information
- b** : personal rapport
 // a lack of communication between old and young persons
- 2 **a** : information communicated : information transmitted or conveyed
- b** : a verbal or written message
 // The captain received an important communication.

RISK COMMUNICATION-2

Definition of communication:

the art of making words synonym



RISK COMMUNICATION-3

Risk communication refers to the ***exchange of real-time information***, advice and opinions between experts and people facing threats to their health, economic or social well-being. The ultimate ***purpose of risk communication*** is to enable people at risk to take informed decisions to protect themselves and their loved ones.



RISK COMMUNICATION-4

Risk communication uses ***many communications techniques*** ranging from media and social media communications, mass communications and community engagement.

It requires a sound understanding of people's perceptions, concerns and beliefs as well as their knowledge and practices.

It also requires the early identification and management of rumours, misinformation and other challenges.



RISK COMMUNICATION-5

- **Decision making** is a critical step relevant with risk assessment:
 - Priorization is detected
 - Counter-measures is detected.



RISK COMMUNICATION-6

Decision making is heavily affected by risk communication process..

Cide

Suicide : to kill himself/herself

Homicide: to kill somebody

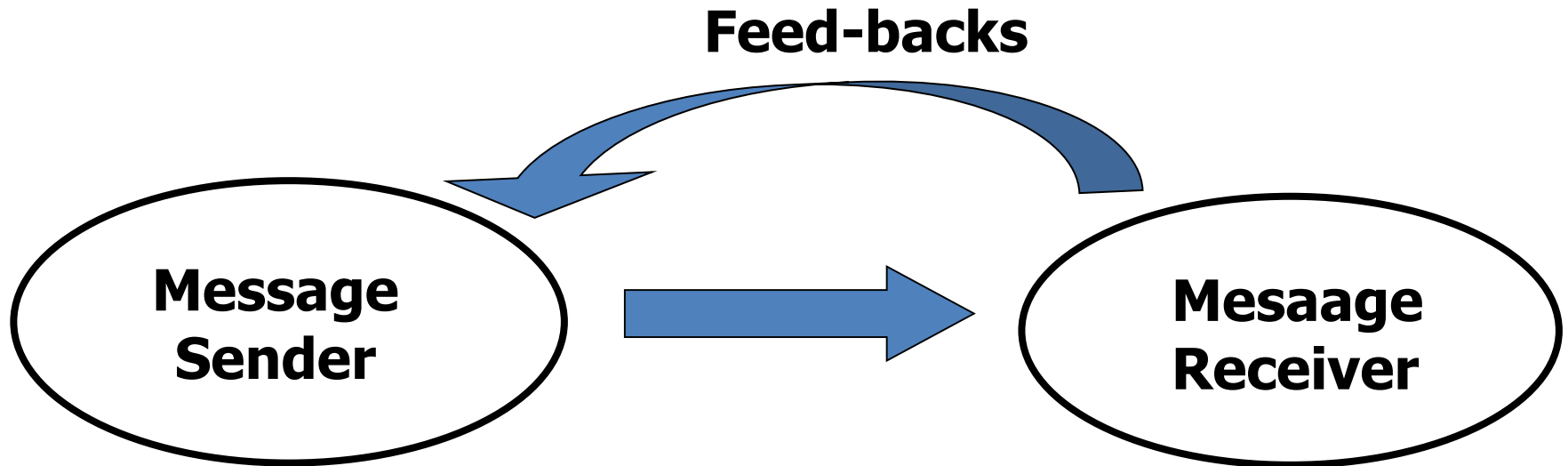
Genocide: to kill a race

Decide: to kill the other alternatives

Decision Making



RISK COMMUNICATION-7



Communication Tools

- ***Verbal***
- ***Written***
- ***Electronic media***

RISK COMMUNICATION-8

Effectiveness of an communication is directly proportional with:

- ***Observation***
- ***Relevance and focusing***
- ***Active listening***
- ***Feed-backs***
- ***Empathy***
- ***Repeating***
- ***Summarizing***



RISK COMMUNICATION-9

Effectiveness of an communication can be affected badly:

- *Lack of explanation*
- *Lack of confidence*
- *Giving advices*
- *Disregarding*
- *Distance*
- *Timing*
- *Organizational climate*

