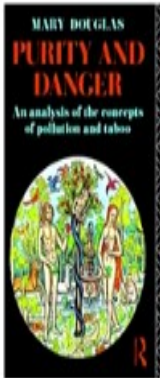**Disaster Recovery and Build Back Better**
Prof. Subhajyoti Samaddar
Disaster Prevention Research Institute
Kyoto University, Japan

Lecture – 30
Cultural Theory of Risk

Hello everyone, welcome to the lecture series on disaster recovery and build back better; this lecture we will talk about cultural theory of risk or cultural perspective of risk. I am Subhajyoti Samaddar from DPRI, Kyoto University so, we already discussed in other lectures about the role of culture in risk perceptions. Here, in this lecture, we will focus more what the cultural theory is talking about people's risk perceptions.

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And how, this is connected with their cultural affiliation okay, so that was the book purely endangered by Mary Douglas in 1966 considered to be a modern classic of anthropology, talking about the moral risk pollution and danger okay.

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Taxonomic Anomalies = Dietary restrictions

And she was talking about taxonomic anomalies, dietary restrictions in case of Jews, Israeli people who cannot have pork or snake as a food, okay because they are considered to be unclean like why they are unclean because they are anomalies, so taxonomic anomalies like snake, they live on land but they do not have legs so, it is very rare, so that's why you should not eat snake.

Similarly, you should not eat pork because they have cloven hooves but they don't chew the cud, so unlike horse and cow so, these are clean who are anomalies, so you should not eat them.

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Hima tribe , Uganda

Similarly, the other examples like in case of Hima tribe in Uganda, they depend on animal husbandry, they depend on livestock okay and that the female; it is considered that female

they should not touch these live stocks, the very tribe whose livelihood depends on animal husbandry on depending on livestock rearing, they should not touch, their women should not touch live stocks.

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14th Century EUROPE : Poor water quality was a persistent danger!

The issue only became politicized when **persecution of the JEWS** began and as a part of that process , they were blamed for poisoning well-water.

They believe that if the woman they touch livestock, the livestock will die, so similarly in case of the 14th century Europe, there was poor water quality was already an issue for a very long time but it came into kind of more outcry of the people, it is considered to be as one of the critical concern and the blame of these was given to the Jews people because they were told that Jews people are actually contaminating the water.

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The allocation of responsibility of hazards events is a –

❑ **"Normal strategy for protecting a particular set of values** belonging to a particular way of life ...

❑ "shared confidence and shared fears are part of the dialogue on how best to organize social relations"

So, they started to evict Jews people in Europe, so according to the cultural theory of risk, the allocation of responsibility of hazard event is normal strategy for protecting a particular set of

values, one culture they define that this is right and this is not good, this is bad this is good, this is acceptable, this is unacceptable, this is pure, this is polluted okay, so each culture have their own values.

And through these values; through this lens let's see, what is risky what is not risky, what is pure, what is impure okay and they disseminate this informations among their members.

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Typology of Social Structure & Views of Nature.
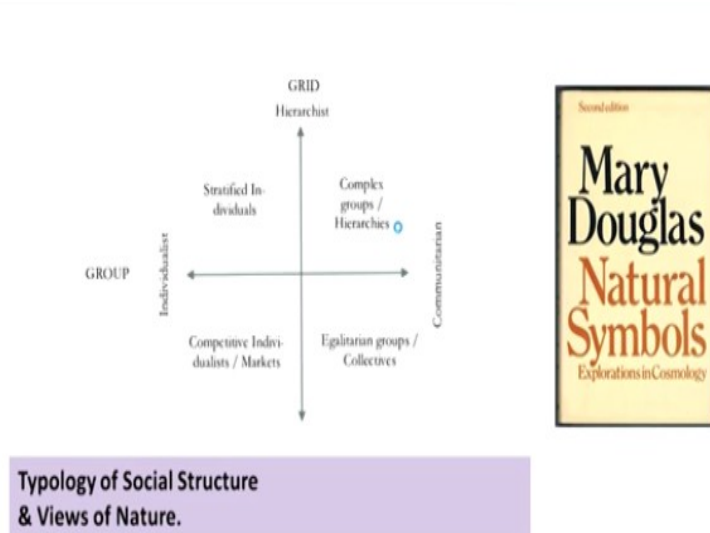
Now, Mary Douglas was saying that we need to have a kind of categories of cultures, there we have many cultures but we can group them, categorize them.

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Why "**Grid- Group**"?

- The "Grid-Group" Approach : A tool to manage cultural diversity.
- Cultural Bias 1978

- *The failure of anthropologists - to theories cultural diversity and to compare culture.*

- *The problems of British anthropologists trained with theories based on field works in Africa who lack tools to anylase their findings during their field work in Melanesia*

She was telling that we can do it through the grid and group pattern, we can categorize the culture in order to analyse them better. Why it is so, why we need to have grid group kind of

system which will come later but why we need categories the culture based on grid and group. She published a book in 1978 and claiming that the traditional anthropologists; anthropological studies on culture, they are lacking any category of culture.

Therefore, if you are studying some culture in Africa, you cannot compare that when you are studying a culture in Asia so, the anthropologist are trained in such a way that they do not generalize their findings so, they are very localized, contextualize their findings. So, in order to reach to some kind of generalizations, we should try to make categorizations of culture, okay.

And so, she said that we can do it through the model called grid and group to categorize the culture to understand people's mind.

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Now, she is saying that we can do this by taking 2 elements; one is whom one interact and how one interact with so, whom one interact is considered to be group and how they interact is considered to be grid, okay.

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GROUP :

- Represents the degree of social incorporation of the individual in a social unit.
- The range of social interaction within a social unit.

So, group generally represent the degree of social incorporation of the individual, this result how often I am meeting someone, how dense is the network between the members of that group if I am living in the neighbourhood, how I am interacting with each of them, am I meeting them very frequently or very rarely, do I know everyone or do I know some of them so, how this people are interacting with each other, what extent it depends on a group, okay.
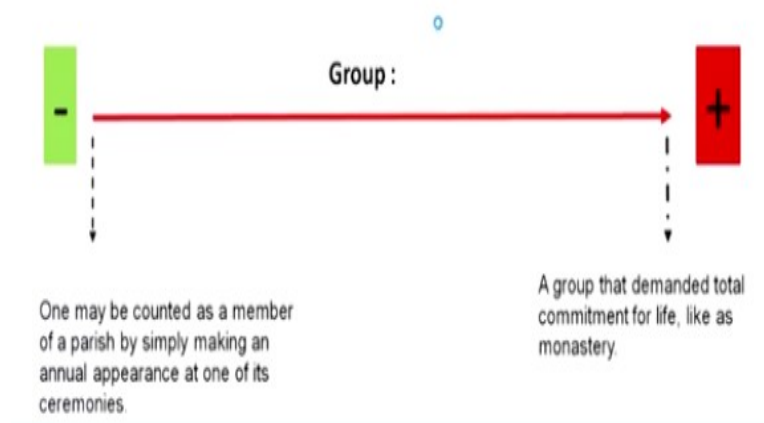
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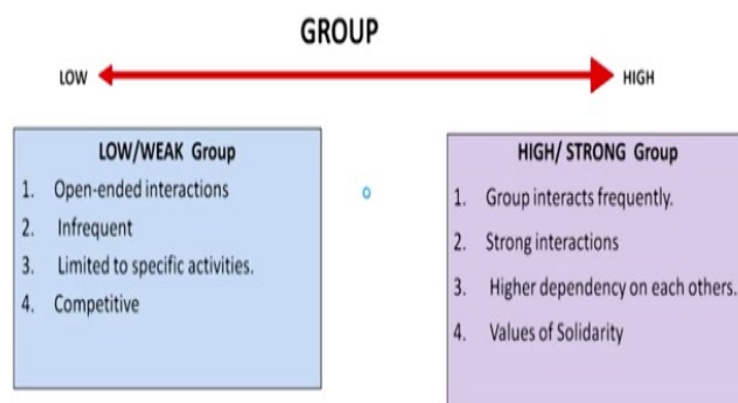
So, some groups are very flexible, very low, they have very less network, less density, they often they seldom met and some are very high, okay, so low and weak group like open-ended interactions, very infrequent, limited with specific purpose, the reason of people interacting, in some neighbourhood people interact very rarely with each other, right or maybe they are very competitive like the colleagues or co-workers, okay.

They do not working in a hospital or working in a school or working in a company, they are very competitive but they have very less interactions; face to face interactions on the other hand, we have high one which are people are meeting with each other like in the village okay, everybody knows everyone, very strong interactions and people depend on each other services, they have high dependency.

And they have share common very strong solidarity, okay like you can see in the villages compared to urban areas, so this is one side, we have a low group and one on the side we have high group; 2 extreme group polarizing.

Also, we have the grid okay, the grid represents that what kind of rules and regulations I should maintain, I should follow, when I am a member of a particular group, okay that what

are the constraints like if I am a particular member of a particular group, will they allow me to have an orientation of homosexual or will they allow me to have equal rights for the women so, feminism, a kind of homosexuality how one see; one group see that is a kind of the rule of the group.

Some group permits, some group do not permit okay so, it is a kind of law, hierarchy, kinship, race, gender that how it is viewed this is in a group, this is called grid okay.

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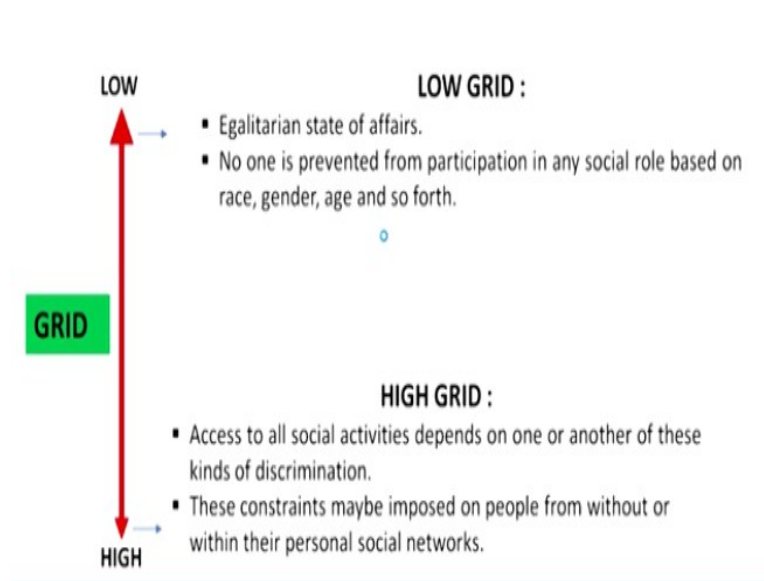
So, we have like low grid where everybody is equal, egalitarian state of affairs, no one is prevented to participate in any kind of activities or social role depending irrespective of their race, gender, age or so forth, everybody is considered to be equal. In other case, where extreme we have high grid panel here, we can see that people are restricted; their activities are restricted based on caste, creed, class.

So, access to social activities depends on one or another of these kinds of discriminations, people are discriminated in this kind of situations okay.

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	GROUP	
	LOW	**HIGH**
Networks	Radical	Interconnected
Interactions	Rare	Frequent
Boundaries	Open	Closed
Shared activities	Few	Many

So, group when low, it is; the networks are radical, when high it is interconnected, in case of interactions low groups are rare, high groups are frequent, boundaries of interactions among individuals in case of low group is open and in case of high group is closed, shared groups like few, high groups are many.

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	GRID	
	LOW	**HIGH**
Accountability	Horizontal	Vertical
Specialization	Little	Great
Allocation of Roles	Achievement	Ascription
Resource Allocation	Egalitarian	Hierarchical

In case of grid, when the grid is low that means in a particular group, particular community, particular society, the low and high is like horizontal and vertical, one is very hierarchical one is very equal okay, specializations; in low group it's very little, people are all have similar kind of activities, they don't have any specializations, in high group there is lot of specializations, lot of division of labour, people are divided, segregated.

And allocation of roles is like achievement what you are; what you have achieved but in case of high, it is like ascribed, what your father was, what your mother was, whatever ancestor was, you become like caste system, okay and resource allocations; in case of low grid, it is like egalitarian, everybody is equal, everybody has the same opportunity but in case your hierarchical; in high, it is hierarchical.

There some elite people have better access, the other people those who don't have they have little access or little power to accessize.

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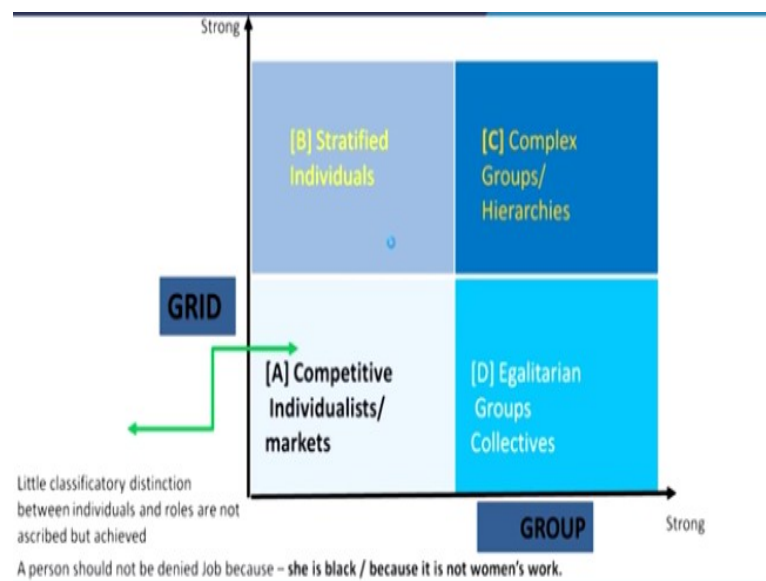
So, if we put this low group and sorry, group and grid into a cross-tabulations, we can get 4 categories; one A, B, C, D, so if we move from A to D to C, we can say that from A to D is A is like individualistic, D is kind of egalitarian and C is like authoritative, some dictators are there and in case of A, it is like little classification and distinctions between individuals are there, they can nobody is segregated or discriminated because they are black because they are women, okay.

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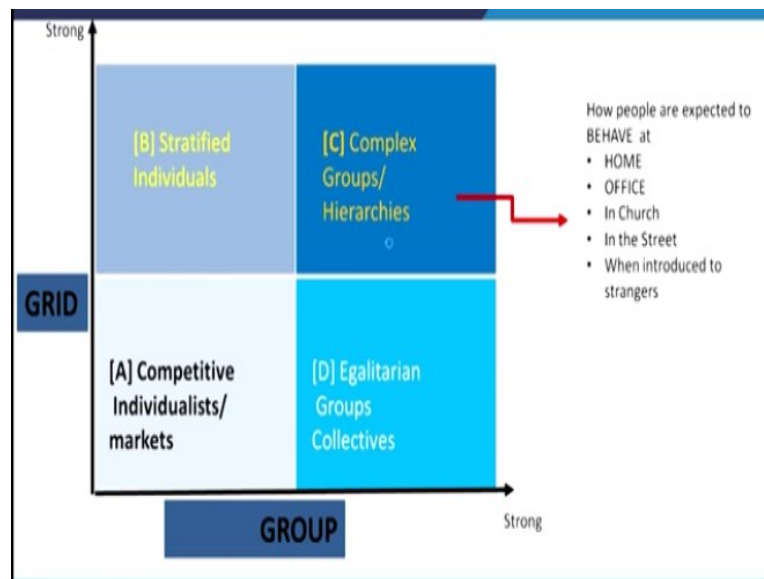
And in case of C which is very hierarchical okay, every movement of their social, cultural personal movements are restricted and ordered.

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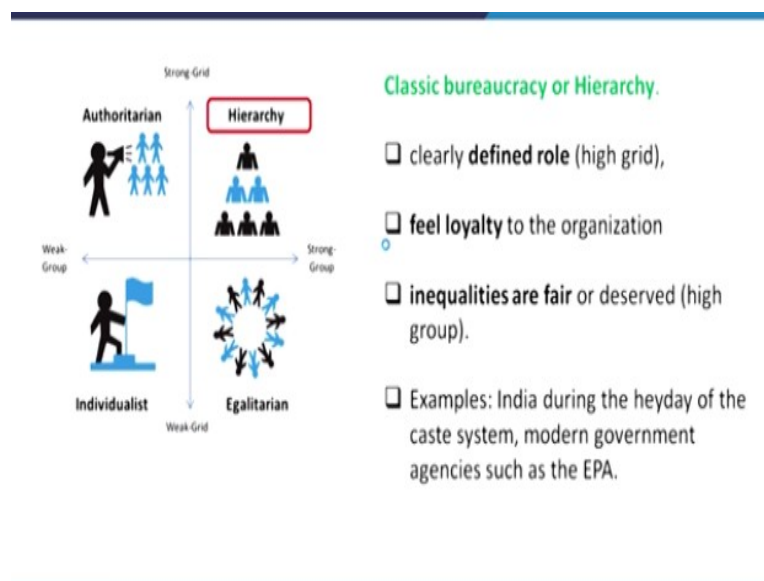
So, we can have this scenario, you can see through this picture that one in individualistic, one is egalitarian, hierarchical and authoritarian. Let's look at hierarchical way of looking, it's like clearly defined role, if there is a strong hierarchy somebody on the top and somebody are bottom okay, they are very rigid clearly defined role, you can only do that like caste system for example.
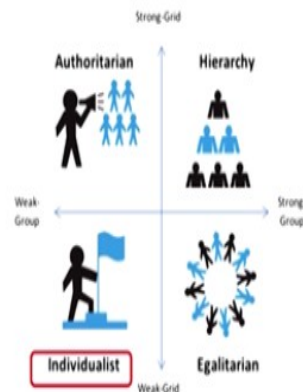
And feel loyalty, you have to say hello, I am loyal to you, I will follow your order okay, to your king; so there is a king, there is a subject and inequalities are prevailing there so,

inequalities are fair and deserve, inequalities are there because people have different capacities, so that is why inequalities are justified okay.

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In case of individualities, individualistic society or culture, it's very different according to it's like free whoever can join whatever choice they have, they can pursue whatever like, they have enough freedom and people have no mutual support because it's very individualistic society, you are what you can do but I am not going to help you anyway and interact with anyone you like, okay.

So, you are free, you can do anything you want, you can interact with anyone, you want you can be a homosexual, you can be a feminist, you can be a radical that is up to you unless and until you are harming anyone so, you were open; you were open to achieve anything you want.
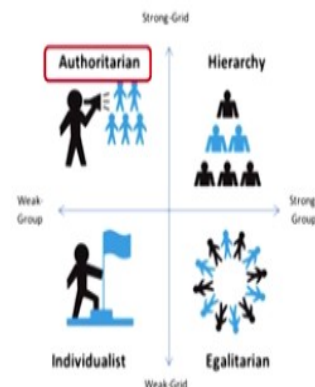
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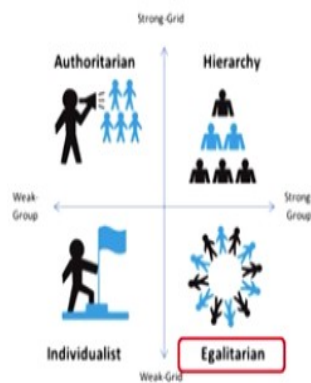
In case of egalitarian, it is like everybody is equal without there is no leader, there is no variation based on status and prestige, no one is okay and there are a lot of solidarities, people help each other between members, okay and but there is a problem that they believe they have a very strong, we feeling that this is we and this is they so, there is a difference between that we and them, okay so, us versus them mentality is there.

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Like we can see in case of hunter-gathering bands or some crimes of communes and another one is the authoritarian or fatalists, here is that somebody there is a ruler, life is constrained by rule imposed by other like defeated soldiers okay, they have to follow the order of the king and there is no trust or cooperations, this is just dominating, one person is dominating others, okay.

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- People derive a great many of their preferences, perceptions, opinions, values, norms from their adherence to a certain way of organizing social relation, which is revealed by their preferences with regard to the two basic dimensions of social life!

(i)   Incorporation / Boundness – **Group** !
(ii) Regulation and Prescriptions – **Grid** !

So, who are left to fend themselves and like the slave as I said or the prisoners okay, so each people of these groups; these 4 groups based on the grid and group of these cultural groups or cultural categories, they looks every aspect of our social life in different manner, different values, different lenses, different perceptions and opinions they have so, it is not the individual biological characteristics that define their values.

But which culture they belong that matter, for somebody is eating with chopstick, is okay for somebody it's cultural shock because it is eating by fork or knife or for someone, it is like no alcohol, you should not drink alcohol, for Muslims example or a foreign white-skinned person is seen in a part of Sri Lanka or South India, this people are so surprised to see this one.
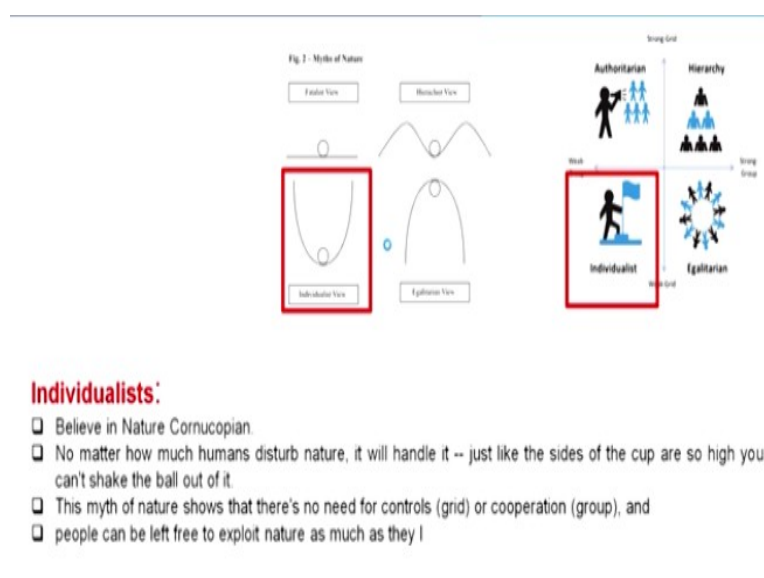
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So, because we have different perspective of human features so, Michael Thomson in 1978 and he was trying to say using this cultural pattern that it is not the cultural pattern that exists and also this cultural pattern actually, through it defines that how people see the risk okay, how people see the risk.

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❑ Each way of life is associated with a worldview that justifies it and explains why that way of organizing society is the best.

❑ An important part of the worldview is a "myth of nature," which describes how the natural world works.
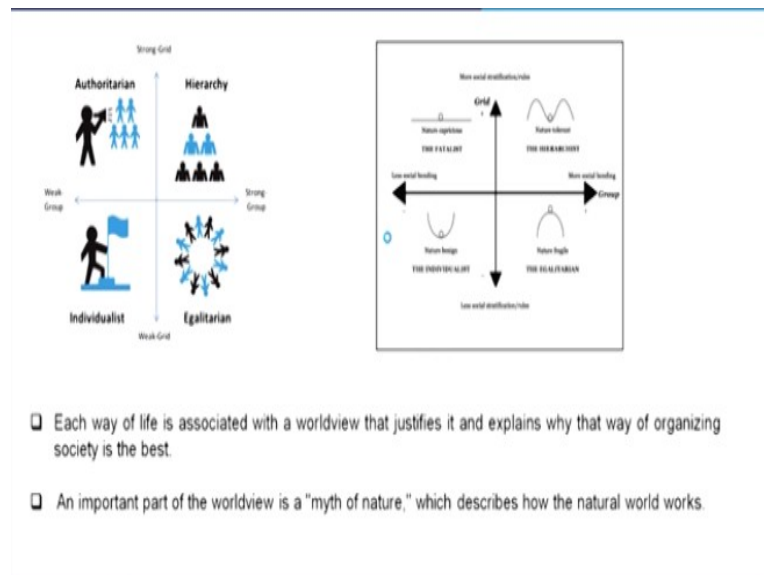
And so, this is the cultural pattern we discussed about, one is very hierarchical then we have egalitarian, everybody is equal and individualist and authoritarian right. Now, each one see risk from different perspective, we will discuss this here okay.

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Individualists:
❑ Believe in Nature Cornucopian.
❑ No matter how much humans disturb nature, it will handle it -- just like the sides of the cup are so high you can't shake the ball out of it.
❑ This myth of nature shows that there's no need for controls (grid) or cooperation (group), and
❑ people can be left free to exploit nature as much as they l

For the individualist, they believe that nature is like no matter how much human disturb it, it will; they can handle it, nature can handle it, it is super-powerful, so for your own well-being, for your own achievement for your own success, you can utilize the nature as much as you

wish and okay, this myth of nature shows that there is no need for control or cooperations, people are free to use the nature.

So, there is no risk exist, people can be left free to exploit nature, okay because this is a very competitive society okay, everybody is free and their status is based on ascribe status.

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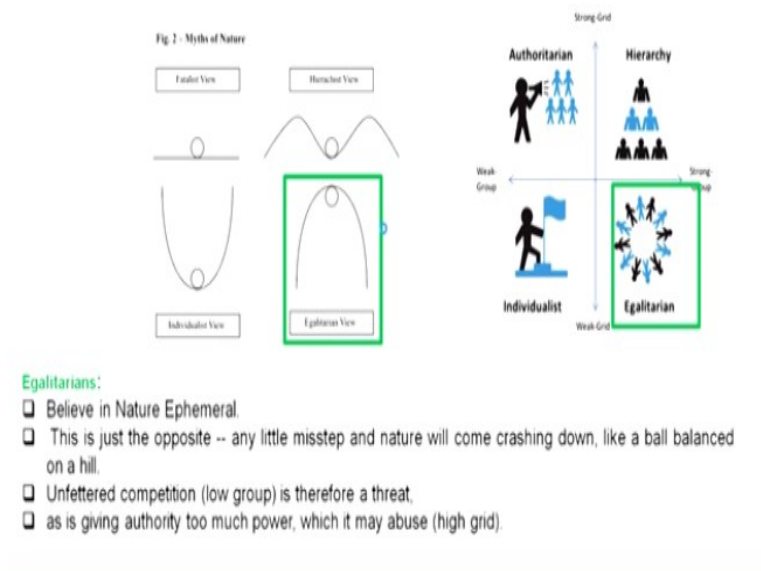
In case of egalitarian which is kind of they see that actually the it's very opposite of the individualistic any, they think that that nature is very vulnerable, any little mistake nature will come crashing down okay, like a ball balanced on a hill, if we just touch it, it will fall so, we need lot of control, lot of control okay and cooperation is necessary to protect yourself from that kind of threat okay.

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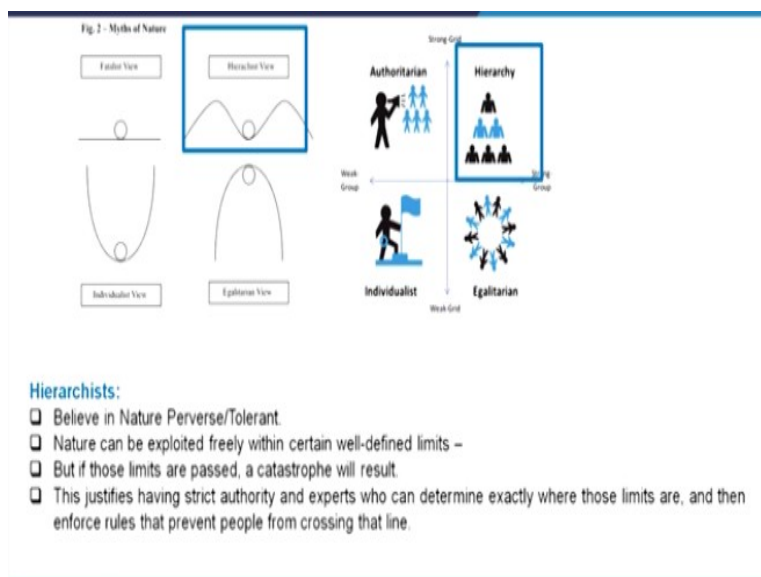
So, we have to help each other to protect as our self from the threat of hazard; from the threat of risk and then we have hierarchical okay, they believe that nature can be exploited freely but there is certain rules, particular way they define there is a limit of it, okay because this limit is put because they have a very strict authority so, the authorities or the higher people those who have or the Kings or the top people they know how to do it.

So, they depends much so, expert can tell you what is right and what is wrong, the king can tell you okay that what is right and what is wrong and you have to follow that extent so, it is okay that you can exploit the nature but you cannot cross certain point, cross certain boundaries okay, if you cross that one you are putting the nature at risk and on the other hand, we have fatalists, there is no way to foresee how nature will react to any stimulus.

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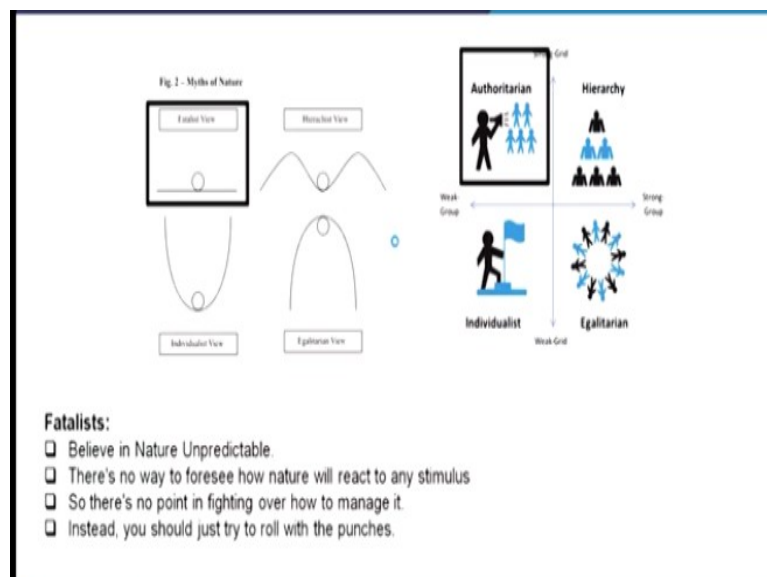
So, they don't know what is the risk okay, it is protected or not so, there is no point in fighting over how to manage it instead you should just try to roll with the punches so, you should go on.

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Attitudes to risk

•**Individualists** fear risks that would limit the market and constrain their ability to trade freely. For example, war.

•**Egalitarians** use the threat of catastrophic risks to generate solidarity. For example, global warming.

•**Hierarchists** fear risks that would upset the ranking of people. For example, crime and social deviance

•**Fatalists** don't see the point in fearing any risks - it's not like they can do anything about them.
Outstanding issues in Cultural Theory

So, they are the most vulnerable so here, we look at the attitude of 2 risk; one is individualistic, the fear risk that would limit the market and constraints their ability to trade freely. Egalitarian; use the threat of catastrophic risk to generate solidarity, for example, global warming. Hierarchists fear risk that would upset the ranking of people okay. For example; crime or social deviance.

Fatalists; don't see the point of fearing any risk, it's not like they can do anything about them so, we are talking about this that how one see different way of looking at the risk from their cultural perspective so, it is not that risk is objective and his hazard dependent but it is more that how people are culturally when oriented, how their perception values are met as we see in each cases; individuals, egalitarian, hierarchists and fatalists.

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A Polythetic Concept of Risk

• RISK = PROBABILITY of an adverse event and the MAGNITUDE of its consequences.

??

Steve Rayner

This idea was then little further developed by Steve Rayner, he was talking about polythetic concept of risk and that in generally, we consider risk is the probability of an adverse event and the magnitude of his consequence right, something will happen, an adverse event will happen and it has some consequences.

But he is arguing that risk is more than that risk actually a kind of perceptions, it varies from one person to another, there is no one meaning, risk is more polythetic, so he got this philosophical idea okay, from Wittgenstein, he is asking that to for you what is the meaning of a game okay, for if you look at the game, you will not see something that is common to all game.

For example, we have the game here; 3, 4 games, one is and the cricket and in the soccer and the chess and solitaire okay so, in the first part they all consider to be a game but they have very less similarities with each other for example, the cricket or soccers both are 11 players play for each team so, they have some similarities but from the point of rules, aims and strategies they are quite different.

On the other hand, they are completely different from chess or solitaire, in other sense that chess and solitaire are quite similar because they both are played on board and they both are not competitive as such okay.

- There is a series of links which connect soccer, cricket chess and solitaire.
- But there is no single feature or set of necessary and sufficient conditions which is characteristics of and common to all.
- All games are goal –oriented activities (beating the opposition, solving the puzzle, or completing a number of rounds)
- Although goal orientation maybe a necessary but insufficient conditions of a game. It is also a consistent feature of activities that are not games.

So, there is a series of links that which connect soccer, cricket, chess and solitaire but there is no single feature or that is enough or sufficient condition to call it as a game, right.

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In all of these systems of concept formation , items at one end of the chain that constitutes a category need not to have any conditions in common with those at the other end.

In all these system of concept of formation, items one end of the chain that constitute a category need not to have any conditions in common with those at the other end that means, that they all are in a sense and that they have some commonalities but and like they all are goal-oriented okay but that is not only defining the characteristics of the game, game needs to be more characteristics.

So one; so they have some similarities but they have also some differences so, one single feature of anything is maybe sometimes necessary but not sufficient condition to define or to call it as game, okay but similarly the public does not care much about the probabilities in

choosing between two course of action, he is arguing when the difference in probability are as small as they are in most of the risk management decisions.

So, people don't care when the probability is let's say high probability and high magnitude, there is no confusion, people say okay, I accept the risk.

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The Fairness Hypothesis

- **Public does not care much about probabilities in choosing between two courses of action** when the difference in probability are as small as they are in most of the risk management decisions that policy makers currently face.
- HIGH Probability + HIGH Magnitude = No Confusion.
- Low Probabilities (radiation exposure levels in medicine ; Permissible levels of possible carcinogens in food) = UNCLEAR.
- PUBLIC = The life ought to be entirely free of involuntarily danger. NO. Never

But in case of low probability okay, like radiation exposure, labels in medicine or permissible level or possible carcinogens in cancer, these kind of low probability event of risk is very unclear to the people so, what people will do the life, how they will consider it as an accepted or not accepted.

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So, what do most of the policy makers' constituencies care about ?

TLC : Trust, Liability , and Consent

TLC

So, he is offering that for that we can have a kind of model which is called TLC; trust, liability and consent okay.

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Polythetic Definition of Risk

- Probability (P) **x** Magnitude (M) + TLC
- Principles of trust, liability and consent are themselves subject to institutional preferences that will vary as part of the cultural context.

So, polythetic definition of risk is that probability and magnitude that is the traditional way of looking at risk but that is not enough, we should add the TLC okay, this is the principle of trust, liability and consent are themselves also, the subject when we define that what is risk.

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Acceptance of "Advance Reactor Concepts"
Oak Ridge National Laboratory
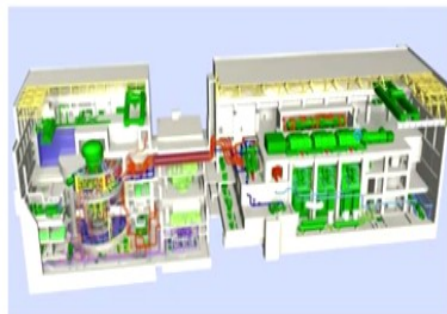
1. The Utilities

2. State Public Utility Commission (PUCs).

3. Public Interest group critical for Nuclear power

- Examining the perspectives of the major constituencies on the basis of the technological choice, and not the probability of harm, indicate that their predominant concerns about risks were fundamentally different.

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Each constituency conceptualized basic nuclear issues differently

The Utilities :

Investment risk !! (The risk that the cost of plants will not be fully recovered from ratepayers).

- Not truly unconcerned about health and safety risks! For them, this is a part of the technical design aspect that is licensed by regulators.

The State PUCS :

Economic risks!!- Costs are incurred that were not anticipated / Utilities fail to perform as expected / demand fail to grow at a rate that warrents new capacity

Public Interest Group :

Health and Safety Risks !! Because these risks are imposed by one group and inevitably fall unevenly on others, they can not be treated acceptable under any

Like, in case of nuclear power plant that if we want to tell people what should be done, we should can consider this; this TLC concept okay.

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The different ways of conceptualizing problems are indicated in three critical regulatory concerns

- Examining the perspectives of the major constituencies on the basis of the technological choice, and not the probability of harm , indicate that their predominant concerns about risks were fundamentally different.

- (1) The need for the plant (Consent)
- (2) Who pas for the plant (Lability)
- (3) The management of the technology (trust)

So, that's how the problem of the need for the plant, why it is necessary to have a nuclear power plant, so that should be defined and agreed among the parties and who pass for the plant, who will take the liability of it, if something happened, who will be benefited out of it and who will take the benefit of it so, these should be considered when we are defining the risk and the management of the technology.

So, trust is a very critical important point when we are talking about this kind of risk management so, there are some informations, I giving and thank you very much.