



# **The Expectation Discrepancy Effect, Risk Communication Barriers and the Intervention Strategies**

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## **Key words:**

Expectation Discrepancy Effect

Risk Communication

Crisis Management

# Phenomenon: Expectation Discrepancy



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A passenger refused to take the security check in Beijing Subway and had physical conflicts with the policemen.

- **Passenger:** A official form, no benefit but wasting passengers' time
- **Subway Ministry:** the consideration of public safety.
- **Security check staffs:** bothered with uncooperative passengers.



# Phenomenon:

## Expectation Discrepancy



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Due to thunderstorms, an airplane diverted to Pudong Airport for landing. After 20 hours waiting, over 20 angry passengers rushed into airfield runway, which resulted a just-landed plane stopped compulsorily.

### Expectation Discrepancy Effect

- **The expectation discrepancy effect** refers to the interpersonal conflict caused by discrepancy among people or groups in the same context.
- The discrepancy could also be enlarged in crisis context
- including the discrepancy on perceived level and the eruption on behavioral level , individual incident (Example 1 &2) and group incident (Example 2)

# Outline



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1 The Concept of Expectation Discrepancy

2 The Psychological Attributors of Expectation Discrepancy

3 The Factors Influence Expectation Discrepancy

4 Bridge the Gap of Communicational Barriers:  
Decreasing Expectation Discrepancy

# 1. Concept



## Expectation Discrepancy

- The attribution of an interpersonal conflict, refers to the discrepancy between self expectation and others' expectation in the same context. The discrepancy could exist in many aspects.

## Expectation Dimension Discrepancy

- The discrepancy on expectation contents
- Example: In a airplane delay accident,
- customers: reasonable explanation, sufficient attention and effective compensation
- air company: control airport and planes.

## Expectation Degree Discrepancy

- The perception discrepancy of expectation degree on a same dimension
- Example: disaster victims expected more medical assistant and material support than government staffs could perceive.

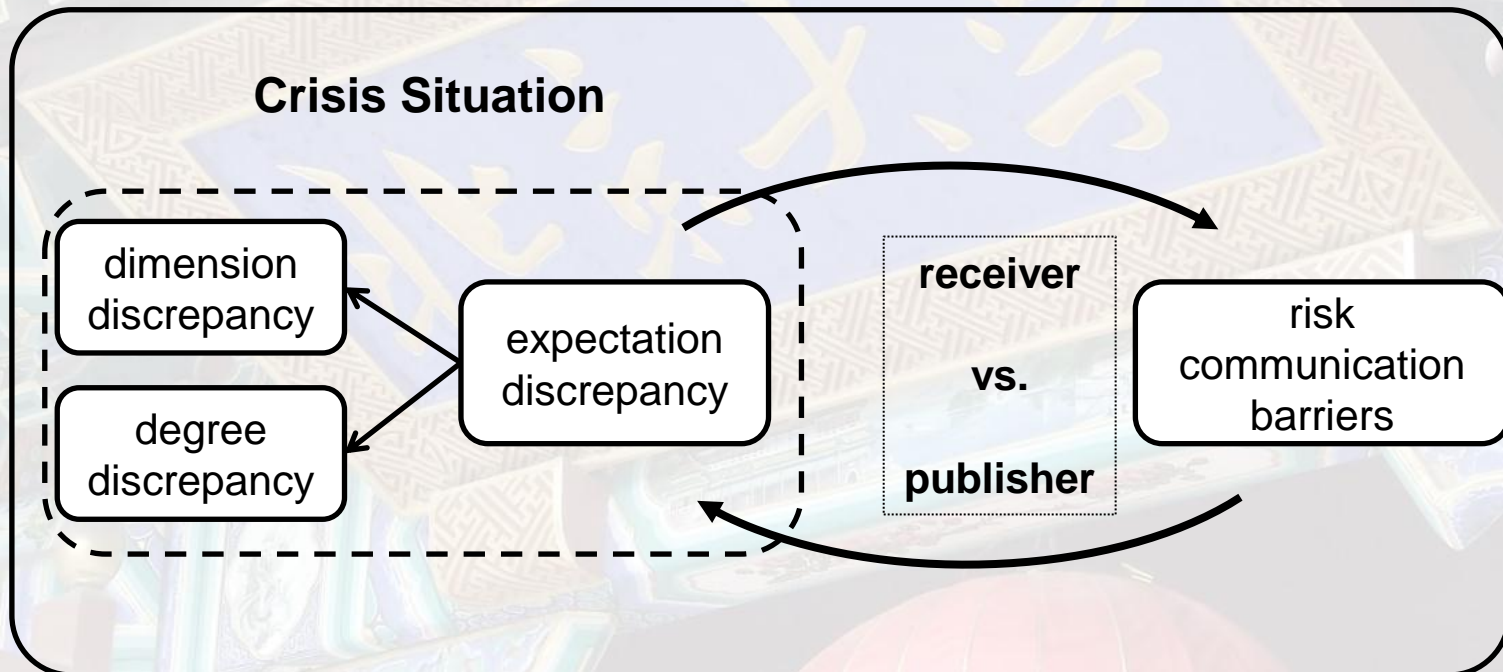


# 1. Concept



**The Expectation Discrepancy is more likely to occur under risk communication in crisis situation**

- **Mutual Communication:** irrational (mental noise)
- **Information receiver:** increase of information demand
- **information announcer:** limited communicational experience



## 2. Psychological Basis of Expectation Discrepancy



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- 2.1 Self-other perceptual difference
- 2.2 Explanations of perceptual difference
  - information asymmetry
  - introspection illusion
  - confirmation bias
- 2.3 Group-oriented reinforcement of expectation discrepancy effect





## 2.1 Self-other perceptual difference

- Self-other perceptual difference is widely existed, which leads to interpersonal conflicts and communicational barriers.
  - Fundamental Attribution Error (Jones & Nisbett, 1972)
  - Egocentric bias in cooperation (Savitsky, Van Boven, Epley, & Wight, 2005)
  - Implicit and Explicit prejudice and interracial interaction (Dovidio, Kawakami, & Gaertner, 2002)
  - Value revelation difference (Pronin, Fleming, & Steffel, 2008); and “You don’t know me, but I know you” (Pronin, Kruger, Savitsky, & Ross, 2001)

## 2.2 Explanations of perceptual difference



### Information asymmetry

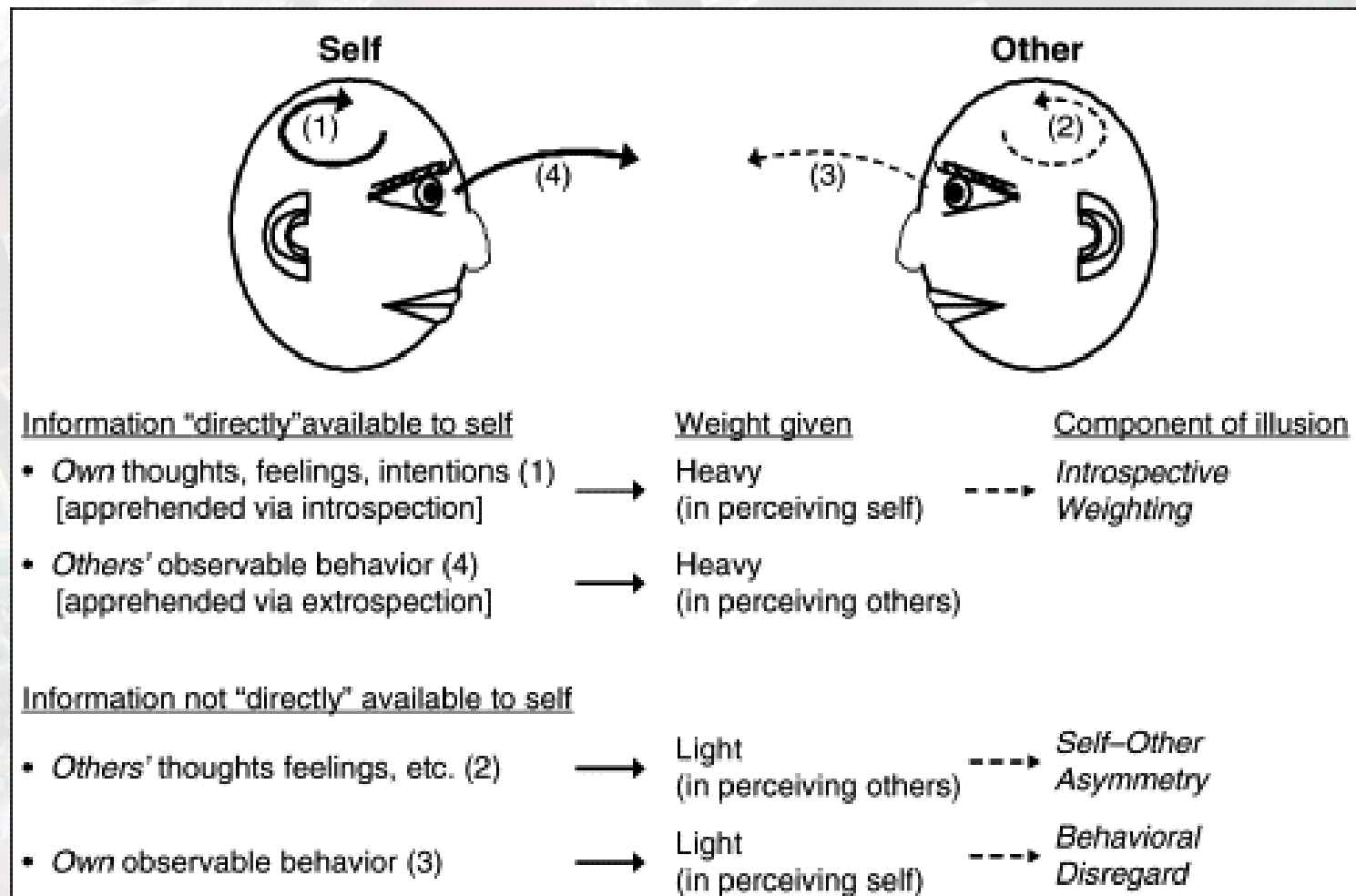
The perceived bias of self- other or actor- observer is generated from different information that actors and observers obtained (Jones & Nisbett, 1972)

	Actors	Observers
Actors' Experience	better understanding on self experience	unable to obtain directly, only deduce through some expressional gestures or previous understanding on actors
Intentional Information	better understanding on self intention	as the above
Environmental Information	throughout the whole behavioral process	only obtain the environmental information on the moment that behavior happened
Personal Historical Information	more likely to compare self behavior to self past behavior	unable to obtain personal historical information from unfamiliar actors, therefore, be more likely to regard actor's single behavior as a typical behavior

## 2.2 Explanations of perceptual difference



- Introspection Illusion Theory





## 2.2 Explanations of perception differences



### Confirmation Bias

The confirmation bias is generated in the process of seeking or interpreting information in the ways that are partial to existing beliefs, expectations, or hypothesis in hand, which is more likely to choose the information that could confirm the existing beliefs (Jonas, et al., 2008; Nickerson, 1998)

Why ?

- Motivation : avoid perceived dissonance (Jonas et al., 2001)
- Perception : Individual would enter a prepared status for information, while one has attained a beforehand conclusion to enter the 'confirmation' stage. The status is '**perceptual readiness**'. Then the informational openness would be dramatically reduced, and only the consistent information could be accepted (Bruner, 1957) 。

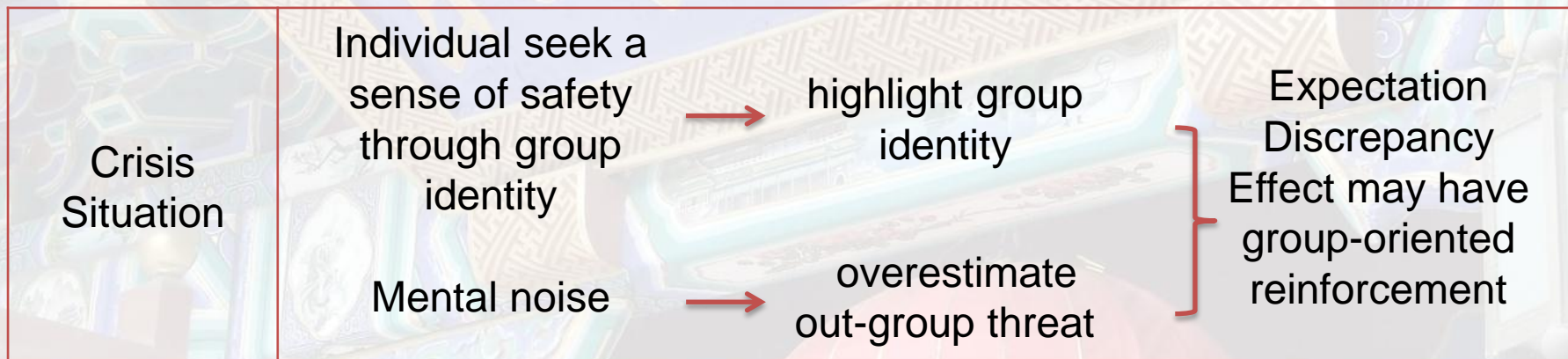
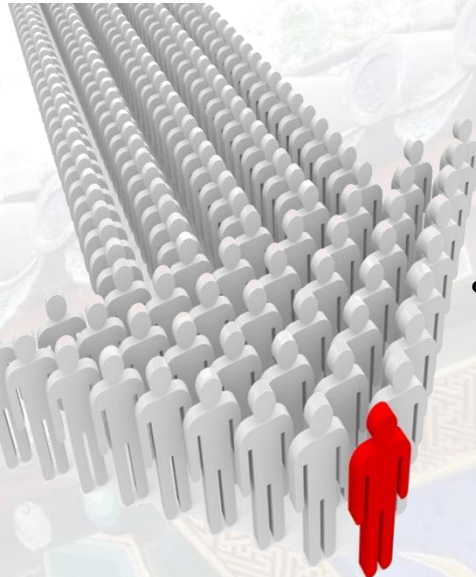
How to  
Decrease?

- Shift the focus on beforehand belief or decision-making in the process of informational presenting (Jonas et al., 2001, 2008)
- break individual's mindset (Kray & Galinsky, 2003)

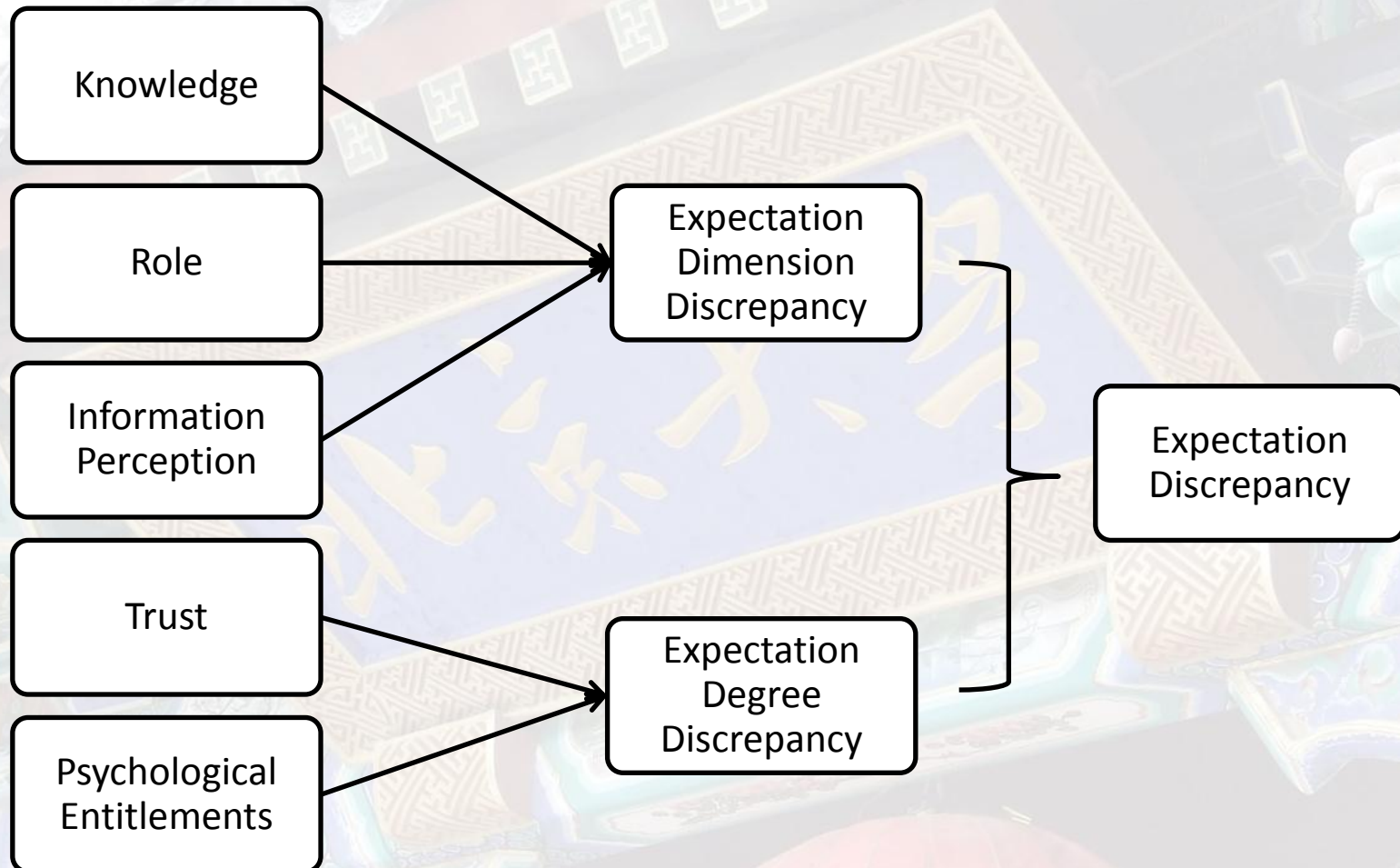
## 2.3 Group-oriented reinforcement of expectation discrepancy effect



- The existence of group bias
  - the phenomenon of group polarization, which is the result of group discussion, will follow the direction of original result toward extremes
- The reinforcement of group bias
  - the highlight of group identity and consciousness will strengthen bias
  - individuals' perception of out-group threat will increase prejudice behavior among groups (Pereira et al., 2010)



### 3. The Factors Influence Expectation Discrepancy





# 3.1 Knowledge——Generate Expectation Dimension Discrepancy



## Effects of knowledge types

- Possessing different types of knowledge can form different focus points e.g. Genetically modified food (GM)
- Communicator (scientist or government): abundant benefit knowledge and risk knowledge, advertise more benefit information in risk communication
  - Public : less benefit knowledge, concerning more about self-related risk knowledge
  - Difference between public's information demanding and communicators' announcement (Poortinga & Pidgeon, 2006)

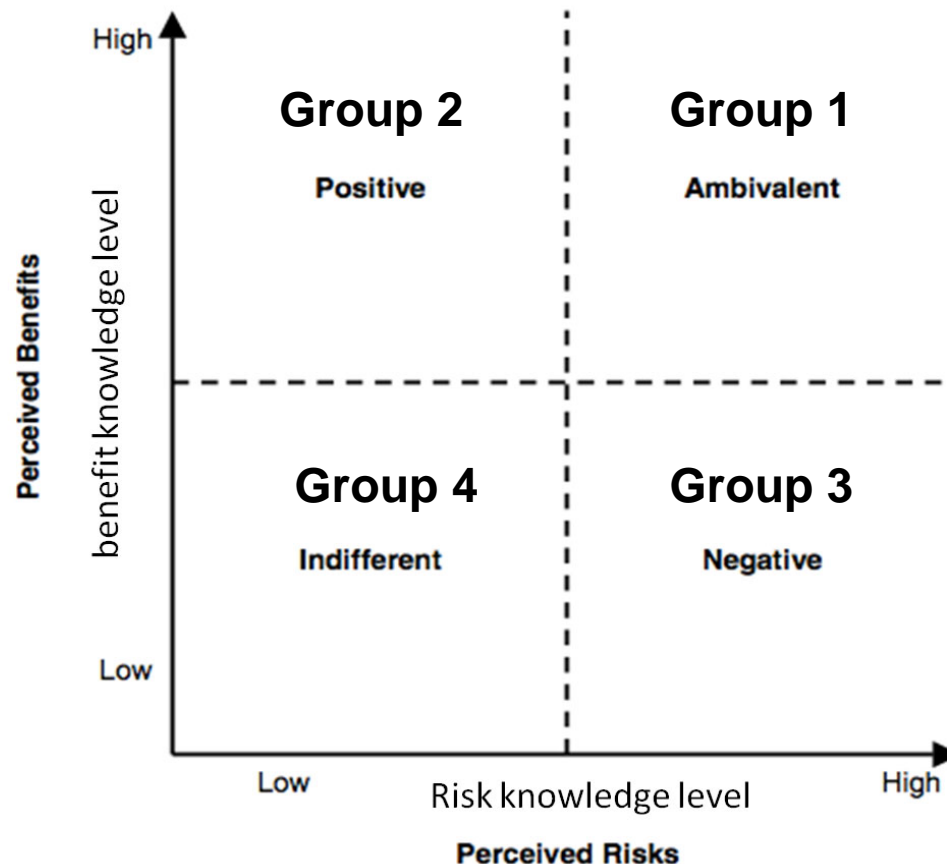
## Effects of knowledge degree

The extend of knowledge can influence information processing (Xiaoqin Zhu, Xiaofei, Xie, Working paper)

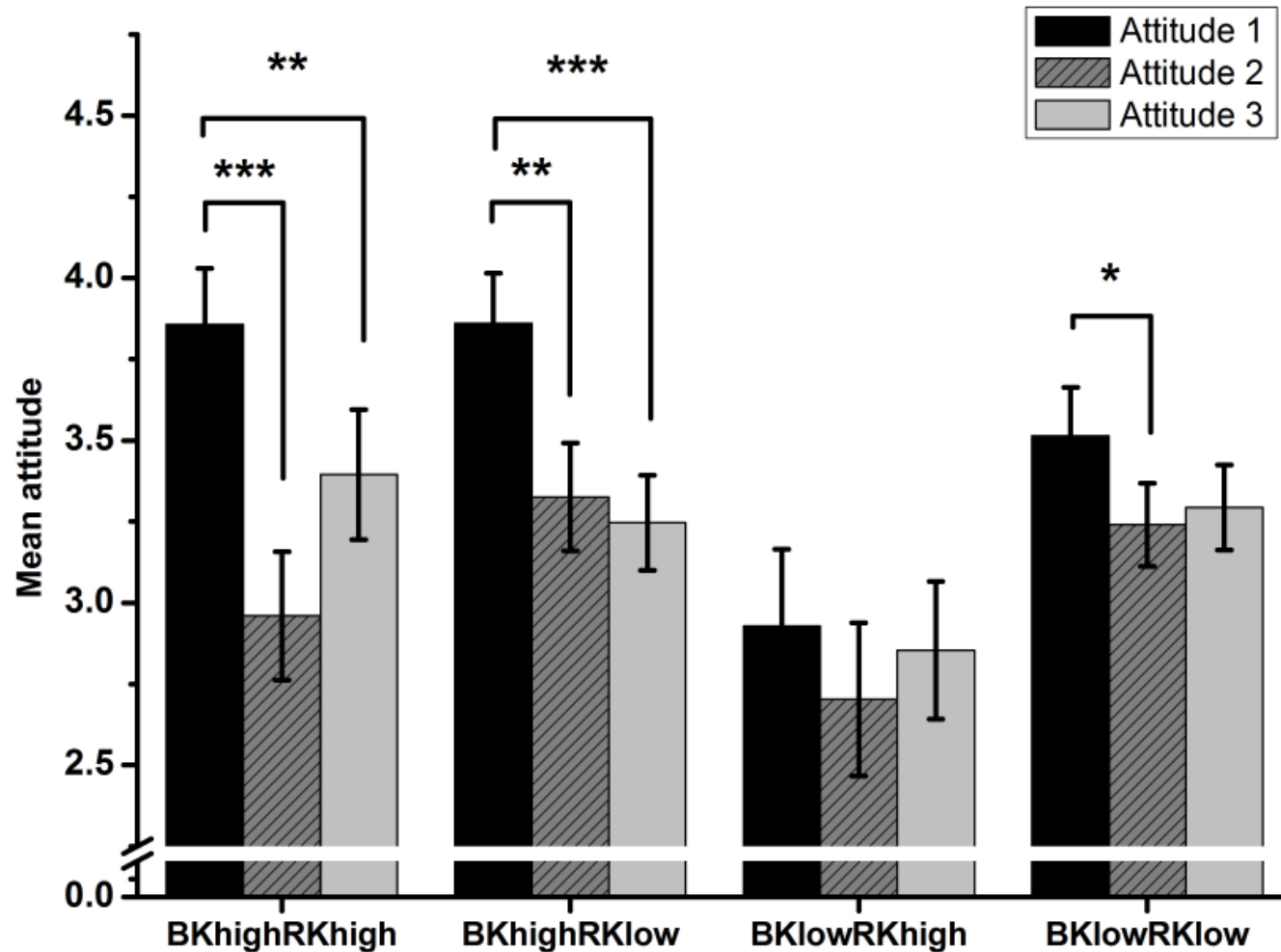
# 3.1 Knowledge——Generate Expectation Dimension Discrepancy



The effect of knowledge on attitude formation and attitude change towards genetically modified (GM) foods (Xiaoqin Zhu, Xiaofei Xie, Working paper, 2012)



# 3.1 Knowledge—Generate Expectation Dimension Discrepancy





## 3.2 Role——Generate Expectation Dimension Discrepancy



- **Role expectation has particular discrepancy**

Different individuals have different expectations towards the same role

Individuals on particular positions have different self expectations from public expectation

- **Other discrepancies caused by roles**

Incongruent Information	<ul style="list-style-type: none"><li>• information announcer : comparative accurate, comprehensive information</li><li>• information receiver: comparative partial, biased information (reason: loss and twist in information delivery, and, individuals' limited perception ability in crisis situation)</li></ul>
Incongruent Prominent Focus Point	<ul style="list-style-type: none"><li>• Taken the Melamine scandal as an example:</li><li>• major communication target (victims): treatment and compensation projects</li><li>• minor communication target (potential victims): how to buy safe milk powder</li><li>• monitorial public: specify responsibilities and draft measures of milk products</li></ul>
Incongruent responsibility perception	<ul style="list-style-type: none"><li>• customer : managers should make efforts on prevention rather than on afterwards fix</li><li>• government: taking actions in crisis situation means achieve responsibilities</li></ul>

# 3.3 Information Perception——Generate Expectation Dimension Discrepancy



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## Perception of information valence

### Negativity bias

- more weight on negative information
- stronger reaction toward negative information than positive one
- greater reliability and more attention to negative information (Taylor, 1991; Siegrist & Cvetkovich, 2001)

## Perception of Information Origins

### Different sources also influence public perception

- The source of information is an important clue in the judgment process of salient value similarity.
- For example: Comparing with scientists supported by enterprises, the public is more likely to take independent scientist, because their salient values are more similar with public.

# 3.4 Trust——Generate Expectation Degree Discrepancy



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- Lower trust can enlarge expectation discrepancy
- The public has strong trust demands after the crisis, but it is quite difficult to build up trust (Slovic, 1999). The reason is people are more likely to focus on negative information at that moment. Once the distrust produced, it will be more easily to be strengthened (Zhu Dongqing, Xie Xiaofei; 2011)。



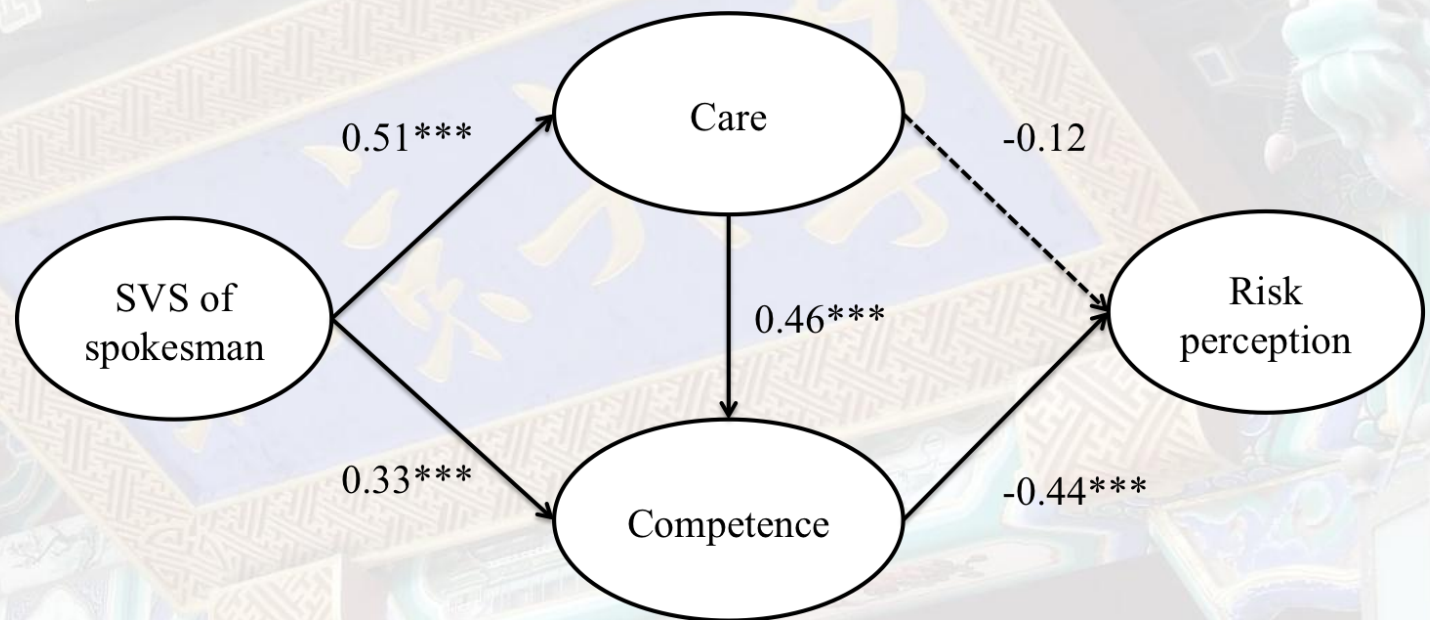
- Once supervision department fails to achieve public's expectation, expectation discrepancy would be enlarged.



### 3.4 Trust——Generate Expectation Degree Discrepancy



Social trust and risk perception of GM food in urban area of China:  
The role of salient value similarity (Xi Lu, Xiaofei Xie & Ji Xiong,  
Working paper, 2012)



# 3.5 Psychological Entitlement——Generate Expectation Degree Discrepancy



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- Psychological entitlement
  - individuals have a subjective perception to self possessing entitlements
  - psychological entitlement would influence individual's performance in interpersonal communication, thus influence the mutual emotion, fairness, happiness in the interaction.
  - For example: customers' psychological entitlement (customers believe they should obtain free special treatment) will lead their behavior to be more aggressive, while the aggressiveness will influence the emotion of service staffs (Fisk & Neville, 2011)
- In the crisis situations, psychological entitlement would initiate difference of expectation degree



Victims

Due to psychological entitlements, victims have greater degree of expectation to supplement

Rescuers

limited by risk resources, rescuers could only offer limited supplement

# 4. Bridge the Gap of Communicational Barriers: Decreasing Expectation Discrepancy



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Break the mindset assist to decrease perception discrepancy

1. Counterfactual thinking
2. Different thinking
3. Anti-commonsense thinking



# 4.1 Counterfactual Thinking



- **Counterfactual thinking decreases mindset and perception bias**
  - Counterfactual Thinking could increase perception flexibility and decrease functional fixedness (Galinsky & Moskowitz, 2000)
- **Counterfactual Thinking decreases expectation discrepancy** (Hu Zhenbei, Xie Xiaofei ; 2011)
  - Manipulate counterfactual thinking through reading stories, tested participants' expectation discrepancy in a food safety context, and found participants with counterfactual thinking would have significantly lower expectation discrepancy than control group.

	counterfactual thinking	non-counterfactual thinking
Positive	Hero would like to switch seat in a meeting but was refused. Then a secret prize was found under his seat.	Hero attended a meeting and found a secret prize under his seat.
Negative	Hero would like to switch seat with another person and was accepted. However, a secret prize was found under his first seat later.	Hero attended a meeting but didn't get a prize.

## 4.2 Different Thinking



- Different Thinking is a cognitive orientation that improve individuals to consider the difference among different things.
- Different Thinking decrease stereotype, improve selection and adoption of point views (Corcoran, Hundhammer, & Mussweiler, 2009; Todd, Hanko, Galinsky, & Mussweiler, 2011)
- **Different Thinking decreases expectation discrepancy** (Hu Zhenbei, Xie Xiaofei ; 2011)
  - Adopted image tasks to manipulate different thinking: offered three groups of pictures, required participants to find the difference between two pictures in one group (at lease four parts); control group, watched three pictures and answered some irrelevant questions.
  - Tested participants' expectation discrepancy in a food safety context, and found participants with different thinking would have significantly lower expectation discrepancy than control group.



## 4.3 Anti-commonsense Thinking



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- **Anti-commonsense thinking refers to the ways of thinking generated from anti-commonsense events and knowledge;** the anti-commonsense events and knowledge are the events and knowledge which violate most people's common sense.
- **Anti-commonsense thinking decreases expectation discrepancy** (Hu Zhenbei, Xie Xiaofei ; 2011)
  - Knowledge questionnaire manipulated anti-commonsense thinking;
  - Experimental group contained four anti-commonsense questions, for example: the correct meaning of “七月流火” is ‘weather is getting colder’, which violates most people's common sense. Participants received the correct answer after completing the questionnaire. Control group did not involve in anti- commonsense questions.
  - Tested participants' expectation discrepancy in a food safety context, and found participants with anti-commonsense thinking would have significantly lower expectation discrepancy than control group.



# Conclusion: Holistic Thought



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## Psychological basis

- Self-other perceptual difference
- Explanations: information asymmetry, introspection illusion, confirmation bias
- Group-oriented reinforcement

## Expectation Discrepancy

Expectation dimension discrepancy

Expectation degree discrepancy

## Approaches to decrease expectation discrepancy

- counterfactual thinking
- different thinking
- anti-commonsense thinking

## Specific influential approaches

role

information perception

knowledge

psychological entitlement

trust



# Thank You !