

What STS can do in bridging between experts and public?

STS's role in dealing with communication disaster and establishing public sphere through health survey

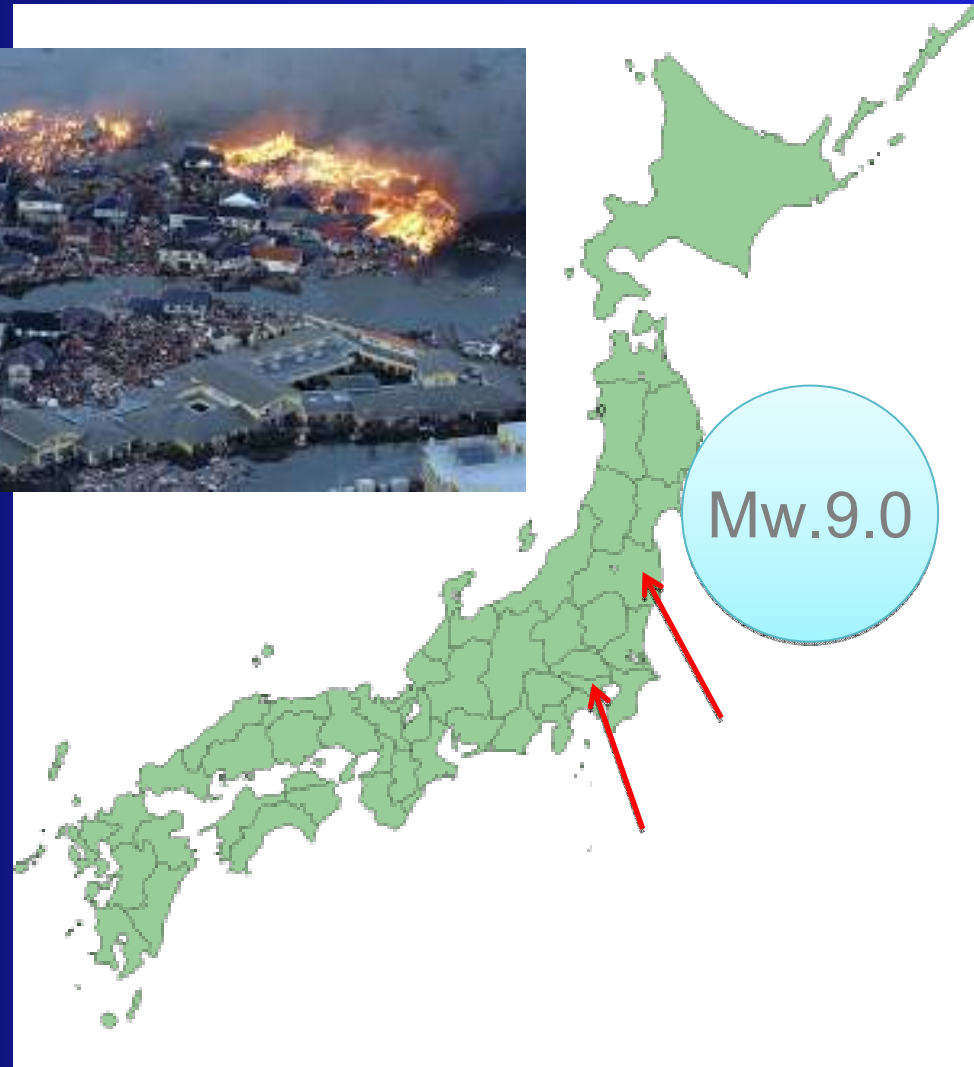
専門家と市民を架橋するためにSTSに何ができるか
コミュニケーション災害への対処と公共空間の構築に
むけて

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The Great East Japan Earthquake & tsunami

14:46 JST, March 11, 2011



Fukushima Daiichi (No.1) Power Plant: Meltdown & Hydrogen Explosions



← **Reactor 1:**
15:36 JST
March 12, 2011

Reactor 3:
11:01 JST
→
March 14, 2011



Fukushima mothers demanding more strict dose standard for schools

福島のお母さんたちの運動



In the courtyard of Ministry of Education, Sports, Culture, Science and Technology (MEXT) May 2011

STS

(Science and Technology Studies;
Science, Technology and Society)

科学技術社会論

Disaster Analysis 災害分析

Historical Analysis 歴史分析

Communication analysis コミュニケーション分析

Governance of S & T 科学技術のガバナンス

Public Engagement 市民参加

三大災害

Triple Disaster

Earthquake, Tsunami, Nuclear Power Plants Accidents

Communication Failure in Protecting Public Health

(National Diet Official Report of Fukushima Nuclear Accident Independent Investigation Commission, 2012)

ひとびとの健康を守る上でのコミュニケーションの失敗

Communication Disaster (Ulrike, 2013)

コミュニケーション災害

**Dealing with Disasters: Perspectives on Fukushima from
the History and Social Studies of Science and Technology:
(HSS/SHOT/4S Joint Plenary Nov.3, 2011, Cleveland, OH)**

日本政府は組織化されていない知識を流し続けた。

「Japanese government continued to announce
Disorganized Knowledge.」



Gap between professionals and citizens

Citizen wanted to know

Professionals / wanted to give

市民側

行政・専門家側

Impartial, non-partisan



Decisive action guideline

Broad information

Limited, absolute information

偏りのない幅広い知識

行動指針となる統一情報

< Citizens >



< Governments/ Scientists >

Anxiety for limited information

Anxiety for non-unique voice

Anxiety for distrust

Anxiety for unrest

情報が偏っているのが不安

統一された情報がないのが不安

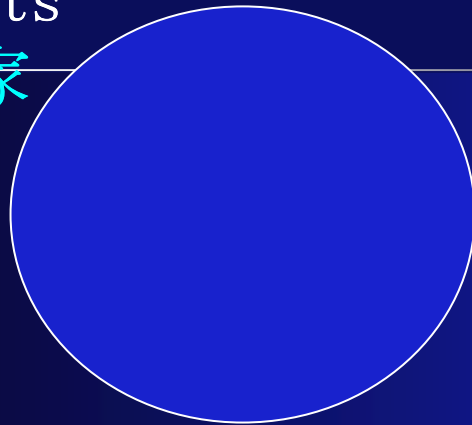
専門家が信用できないのが不安

混乱させるのが不安

一方向コミュニケーション

One-way Communication: Public Acceptance

Experts
専門家



Citizens
市民

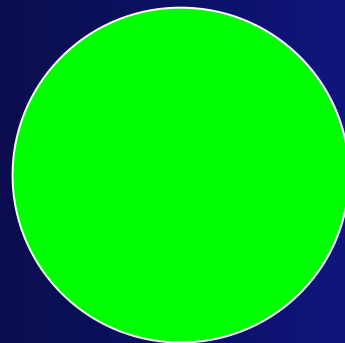


Ignorance

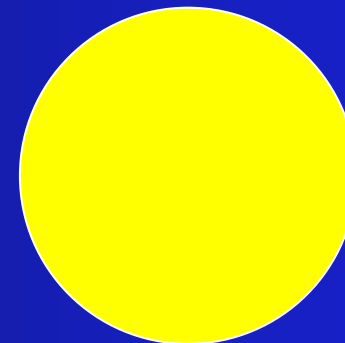
無知

双方向コミュニケーション

Two-way Communication



Scientific Knowledge



Local Knowledge

Deficit Model 欠如モデル

Deficit Model by Professionals/ Government

“The public’s negative attitudes toward science and technology caused by their lack of information and knowledge.” (Wynne,1996)

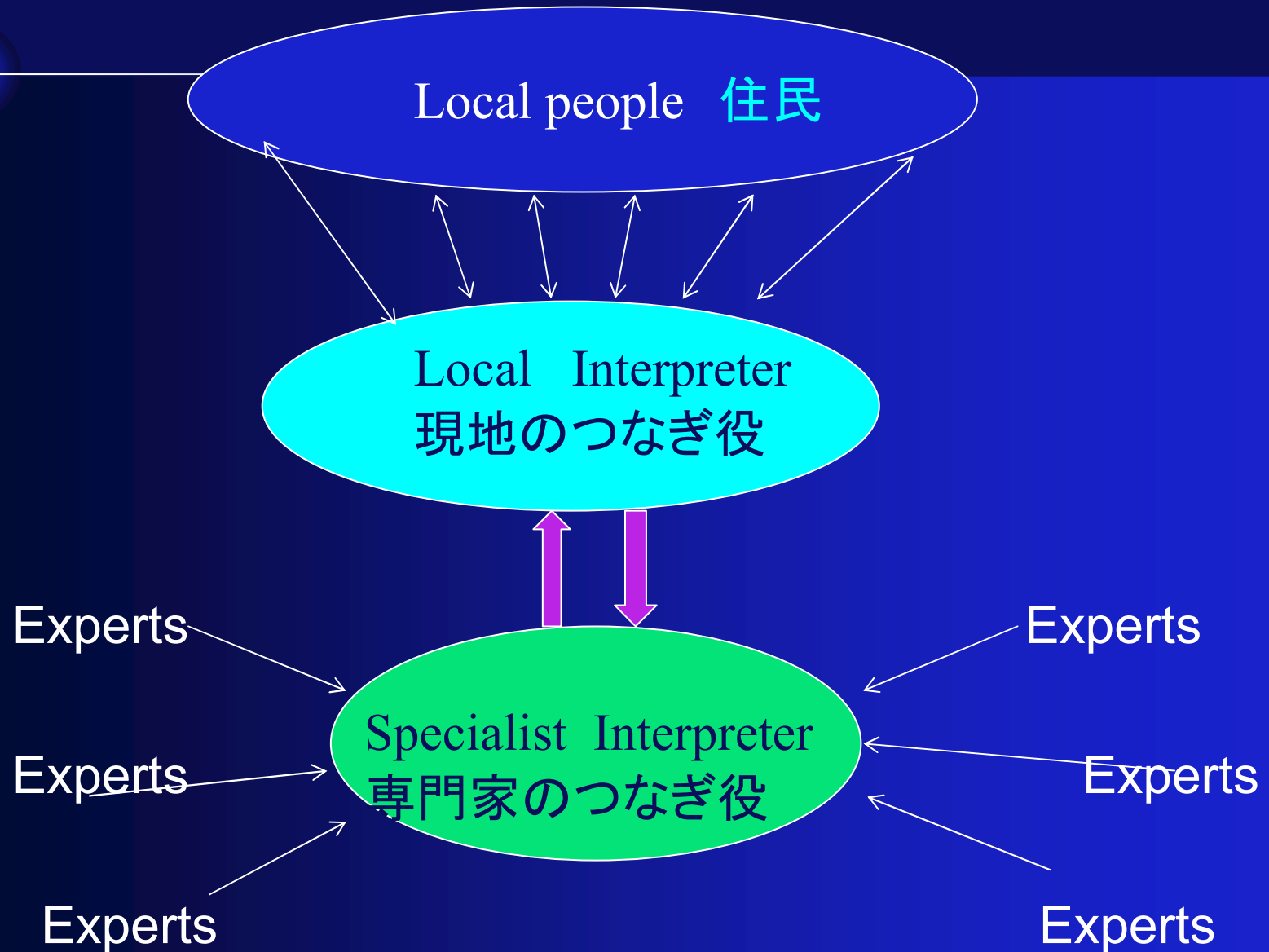
ひとびとの否定的態度は無知のせいである。

“Lacking a proper understanding of the relevant facts, people fall back on mystical beliefs and irrational fears of the unknown.”(Stargus & Allum,2004)

適切な理解に欠くために非合理的な恐れを抱く。

Public Engagement Model

Double Interpreter(Sakura, 2013)



Information-delivery vs.. Information Interpreter

Being an expert during a crisis is much more than delivery information (Fassert, IRSN, 2013).

災害時に専門家であることは、ただの情報伝達者であることではない。

(A) Information – transmitter (just delivery)

情報伝達者

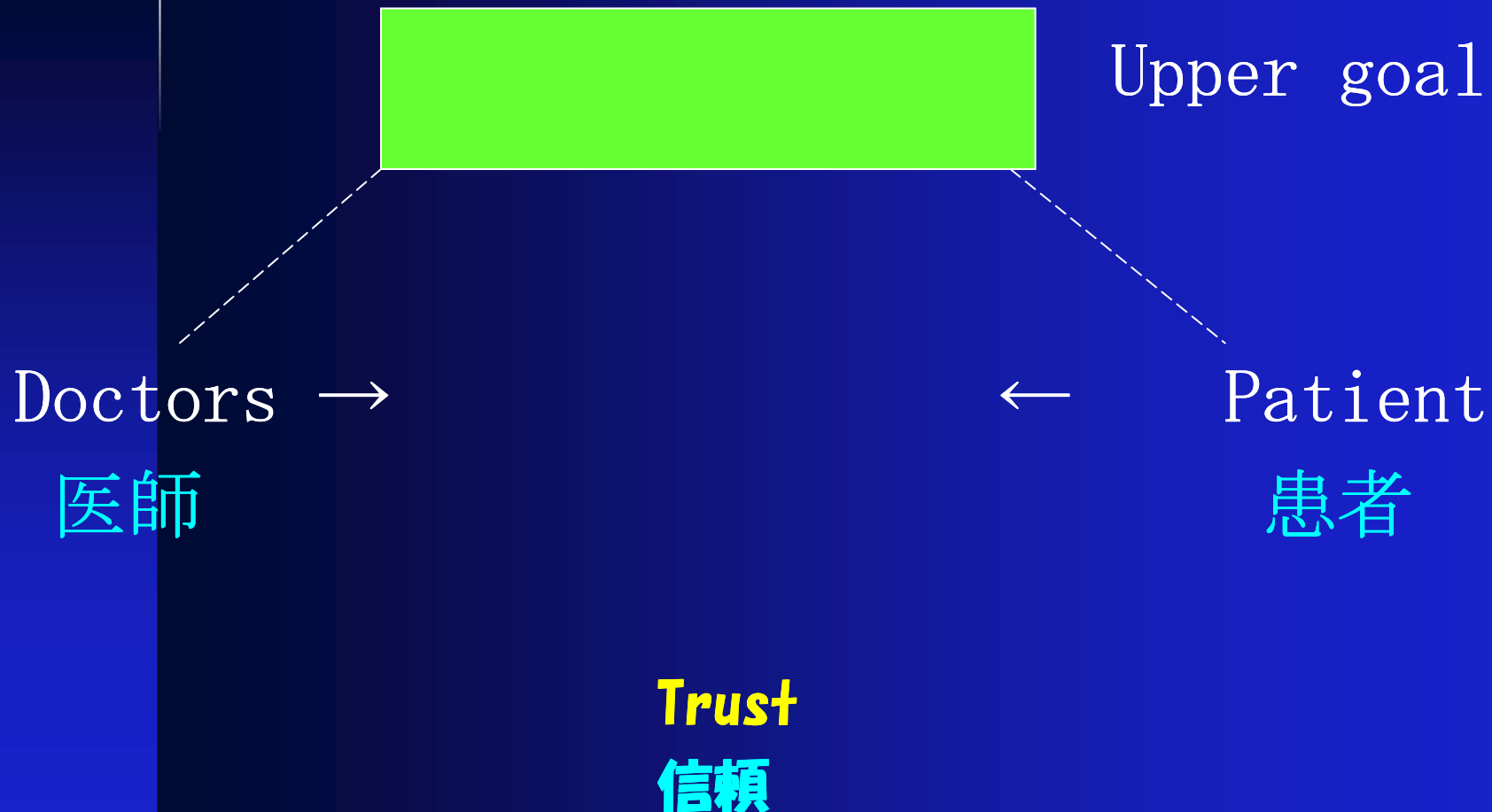


(B) Information – interpreter

情報解釈者

Information – interpreter: 情報解釈者

Sharing the upper goal: 上位目標の共有



Communication Disaster

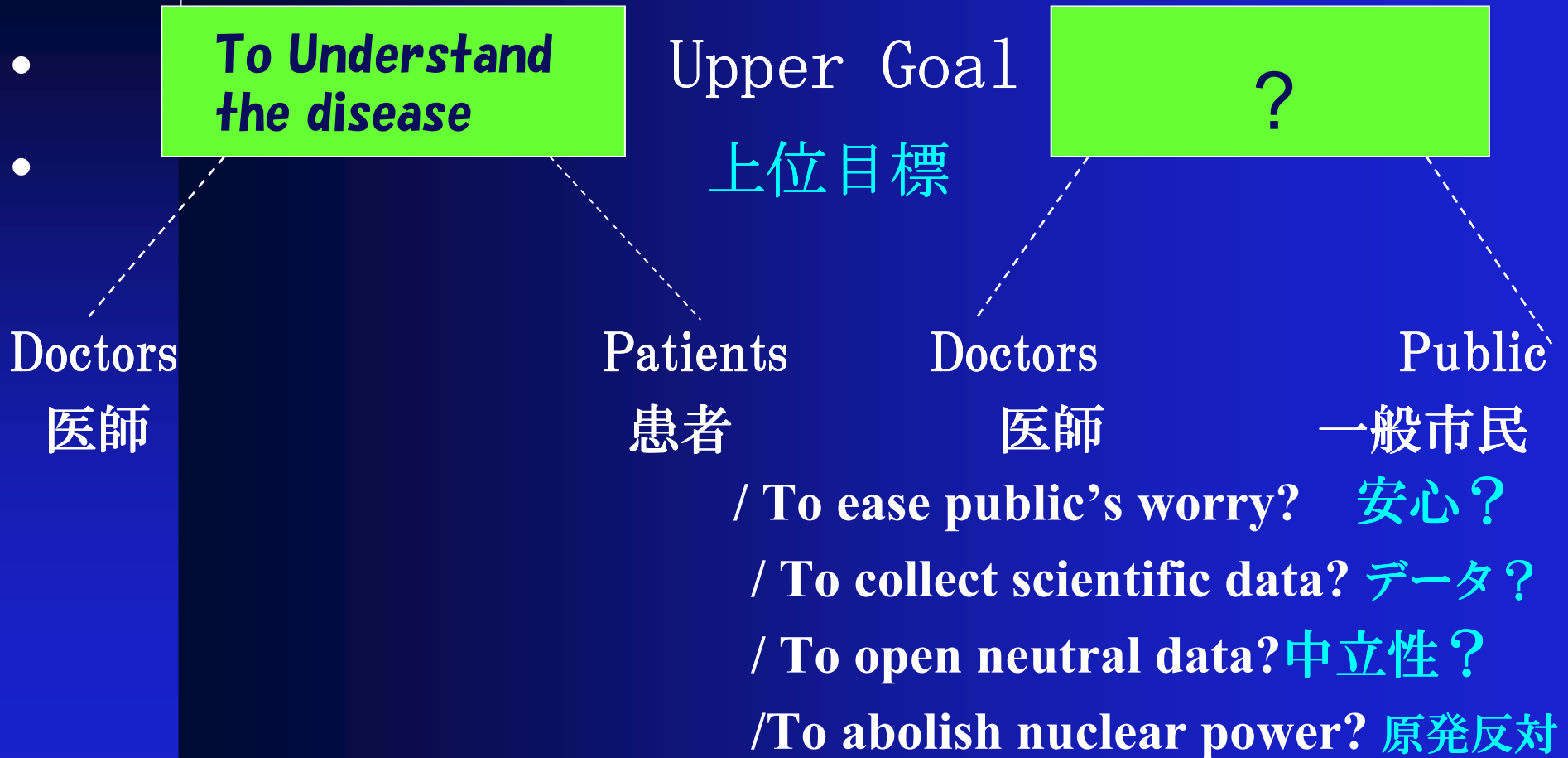
How does public communication differ from doctor-patient communication?

(K.Nollet,2013)

公共とのコミュニケーションは、医師—患者コミュニケーションとどう違うのか？（ノレット教授）

Difference between public communication and public-doctor communication

公共コミュニケーションと医師-患者コミュニケーションの違い



Trust 信頼 (by Nakayachi)

Two components to construct social trust

1) Competence

能力

2) Fairness in Motivation

誠実な動機づけ



After 3.11. statements by person with competence and with fairness in motivation were not trusted.

3.11後は有能なひとが誠実にやっても信頼されない。

Why? 何故か?



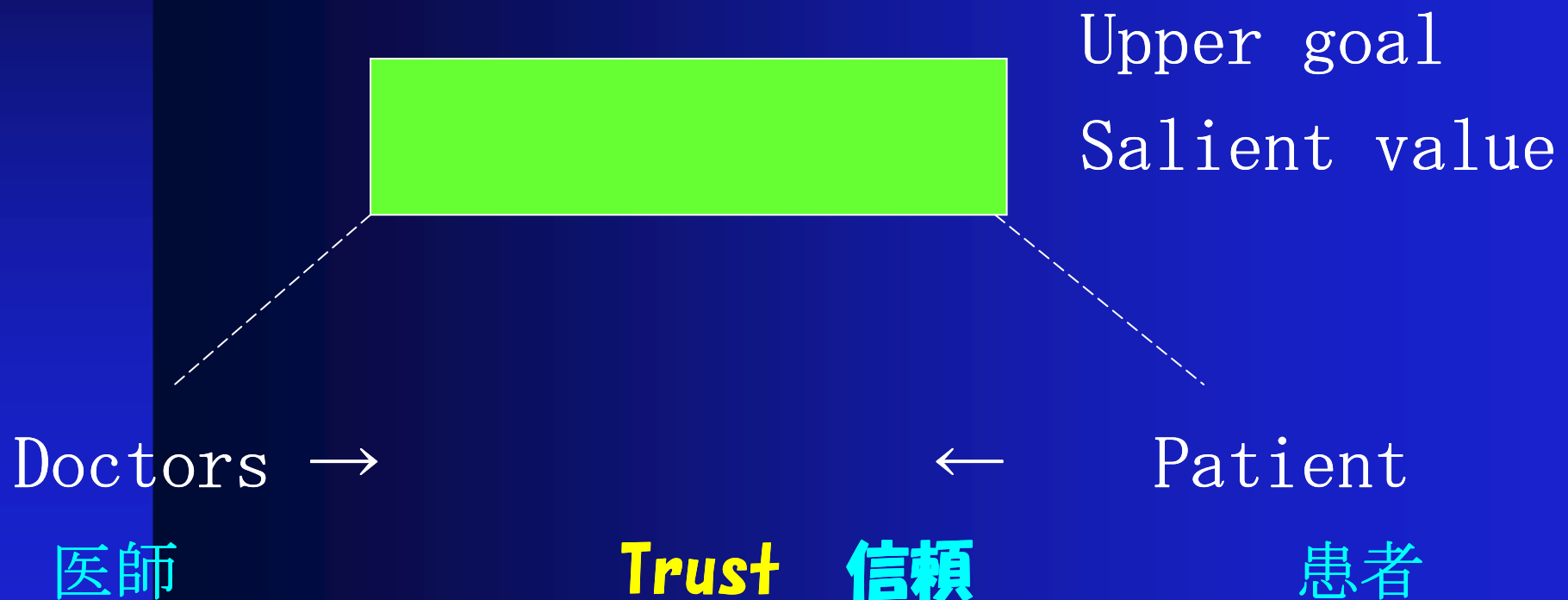
SVS Model

SVS(Salient Value Similarity) model

主要価値モデル

/ One has trust in people holding similar salient value. 同じ主要価値をもつひとを信頼する傾向

Salient values = Upper goals 主要価値 = 上位目標



SVS(Salient Value Similarity) model

主要価値モデル

/ One has trust in people holding similar salient value 同じ主要価値をもつひとを信頼する傾向

/ One who holds salient values to ease public's worry has trust in people holding salient values to ease public's worry.

懸念払しょくの価値をもつ人は同種の価値をもつ人を信頼

/ One who holds salient values to open neutral data has trust in people holding salient values to open neutral data.

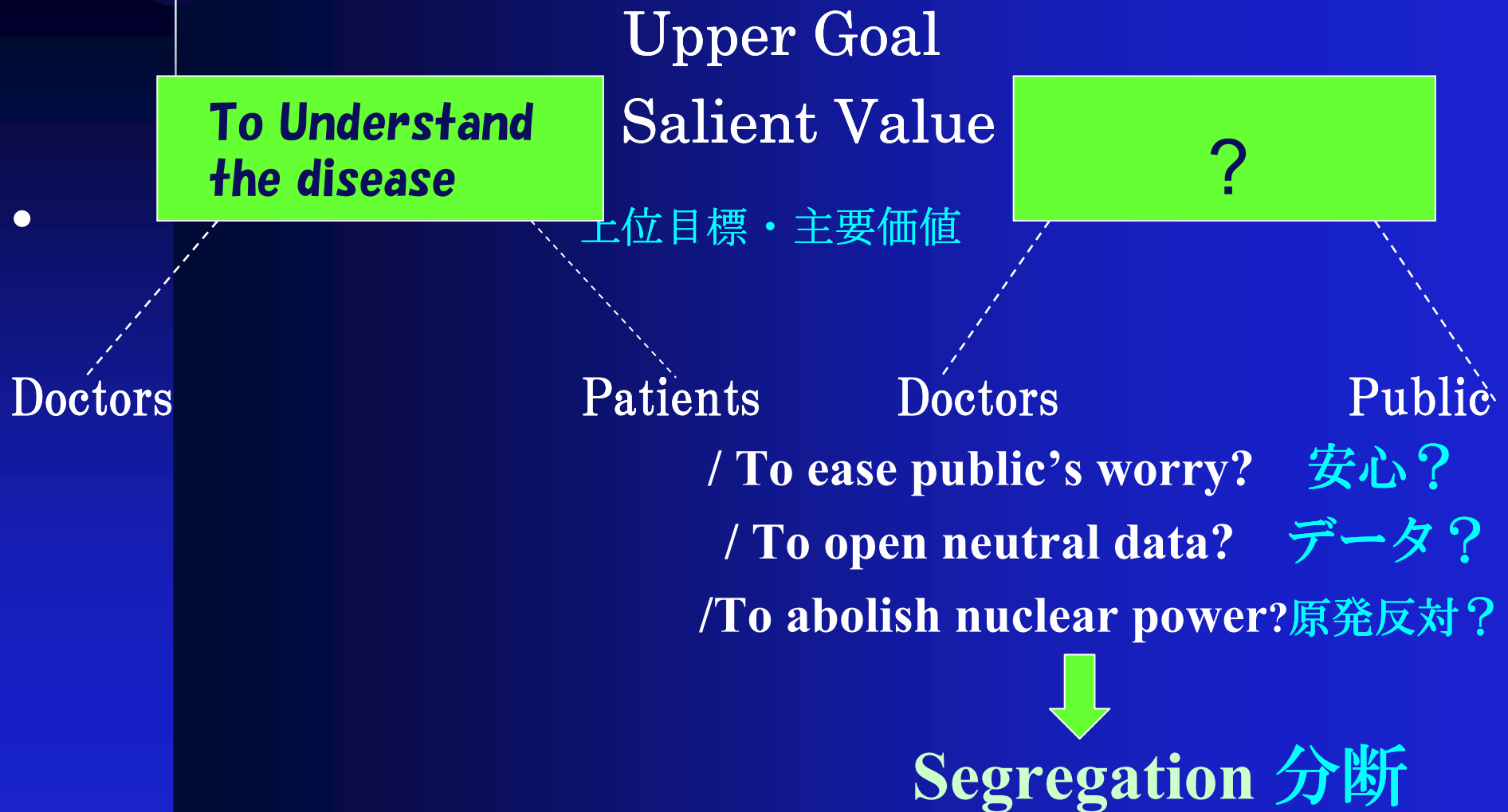
中立データ公開の価値をもつ人は同価値をもつ人を信頼

/ One who hold salient values to abolish nuclear power has trust in people holding salient values to abolish nuclear power.

原発廃止という価値をもつ人は同種の価値をもつ人を信頼

Difficulties in public-doctor communication

医師—公共コミュニケーションの難しさ



Comments by W. Bijker (Nov.3, 2011)

Experimental Democracy

- In U.K., public engagement was promoted after 1996, as the response to distrust to government and professionals caused by BSE scandal.

英国ではBSE禍のあと、市民参加が促進された。

- In the Netherland, experimental democracy was enhanced after 2000, to promote discussion on safety of nanotechnology.

オランダではナノテクノロジーの議論のあと実験的民主主義が促進された。

- In Japan, will the experimental democracy be enhanced to realize “public sphere” to discuss the Future energy?

日本では、今後「公共空間」における実験的民主主義が促進される？

Decision Making Model (Jasanoff, 1995)

Decision Making by Technocratic Model

技術官僚モデル



専門家
行政官

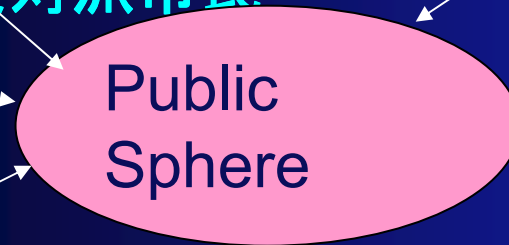


Decision Making by Democratic Model

Specialists

Citizen 賛成派市民

Citizen 反対派市民



Policy Makers

NPO, NGO

Companies

Foreign affairs

In the Public Sphere, people communicate about public matters. (Edwards, 1999)

人々は公共空間で公共の課題について議論する。

Public Sphere fulfils: 公共空間は以下を実現

- | | |
|-----------------------|-----------|
| 1) Democratic Control | 民主的コントロール |
| 2) Agenda-setting | 公共の目標設定 |
| 3) Co-ordination | 利害関係者の調整 |
| 4) Societal learning | 社会的学習の場 |

Examples of Public Sphere

公共空間の例

- 1) Media メディア
- 2) Social Movements 社会運動
- 3) Technology Assessment
テクノロジーアセスメント
コンセンサス会議などの市民会議

Residents' Health Survey?

県民健康管理調査事業の場は？

High Demand for Doctors to Settle Communication Disaster

コミュニケーション災害を解決するために

/ Doctors have learned “Medical Science.”

/ Doctors have learned “Communication with Patients.” But not “Communication with Public”

医師は医科学を学び患者との対話を学ぶが、公共との対話を学ぶ機会は少ない。

/ Include “Liberal Arts”

“Science Communication”

“Social Dimension”

in Medical Education. 医学教育における教養教育

後期教養教育

＝複数の世界を見ることによって、複数のコミュニティを往復する力をつけること。

Ability to pass boundaries back and forth

＝越えるべき「枠」の組み合わせ

Kind of boundaries

- (1) 分野の枠 Boundary of discipline
- (2) 言語の枠 Boundary of language
- (3) 国籍の枠 Boundary of nationalities
- (4) 所属の枠 Boundary of University-Industry-Government

Include “liberal arts” in Medical Professionals’ Education

"[*The purpose of a liberal arts education is to*] **open the mind**, to correct it, to refine it, to enable it to know, and to digest, master, rule, and use its knowledge, to give it power over its own faculties, application, flexibility, method, critical exactness, sagacity, resource, address, [and] eloquent expression."

(John Henry Newman, *The Idea of a University*, 1854)

教養教育の目的は「**こころを開く**」こと
(**制約からの解放**)

後期教養教育としてのSTS

STS as Liberal-Arts for Specialists

- 確立された知識や技術、現在当然視されている事柄がどのようにしてそのようにみなされるようになったのかを問い直す。

A Skepticism towards established boundaries and classifications

Tendency to ask how things now taken for granted got to be that way (Jasanoff, 1996, Knorr-Cetina, 1994)

= Open the Mind

- 複数の現場をつなぐ学問 Studies bridging plural sites
- 市民参加の視点 Public Engagement

分野間コミュニケーションを促す教養教育 Liberal-arts to enhance cross-boundary communication

(1) 臨機応変型のリスクコミュニケーション(佐倉、2013)

Adaptive risk-communication

(2) 市民参加の視点 Public Engagement

(ICRP Pub.111 Engagement of Stakeholders, Local professionals and Inhabitants)

(3) 専門とそれ以外の文脈(市民、他の専門)との間の
「往復」の訓練

Crossing boundary back and forth