



Deconstructing „Acceptance“

# The process matters – a matter of acceptability?

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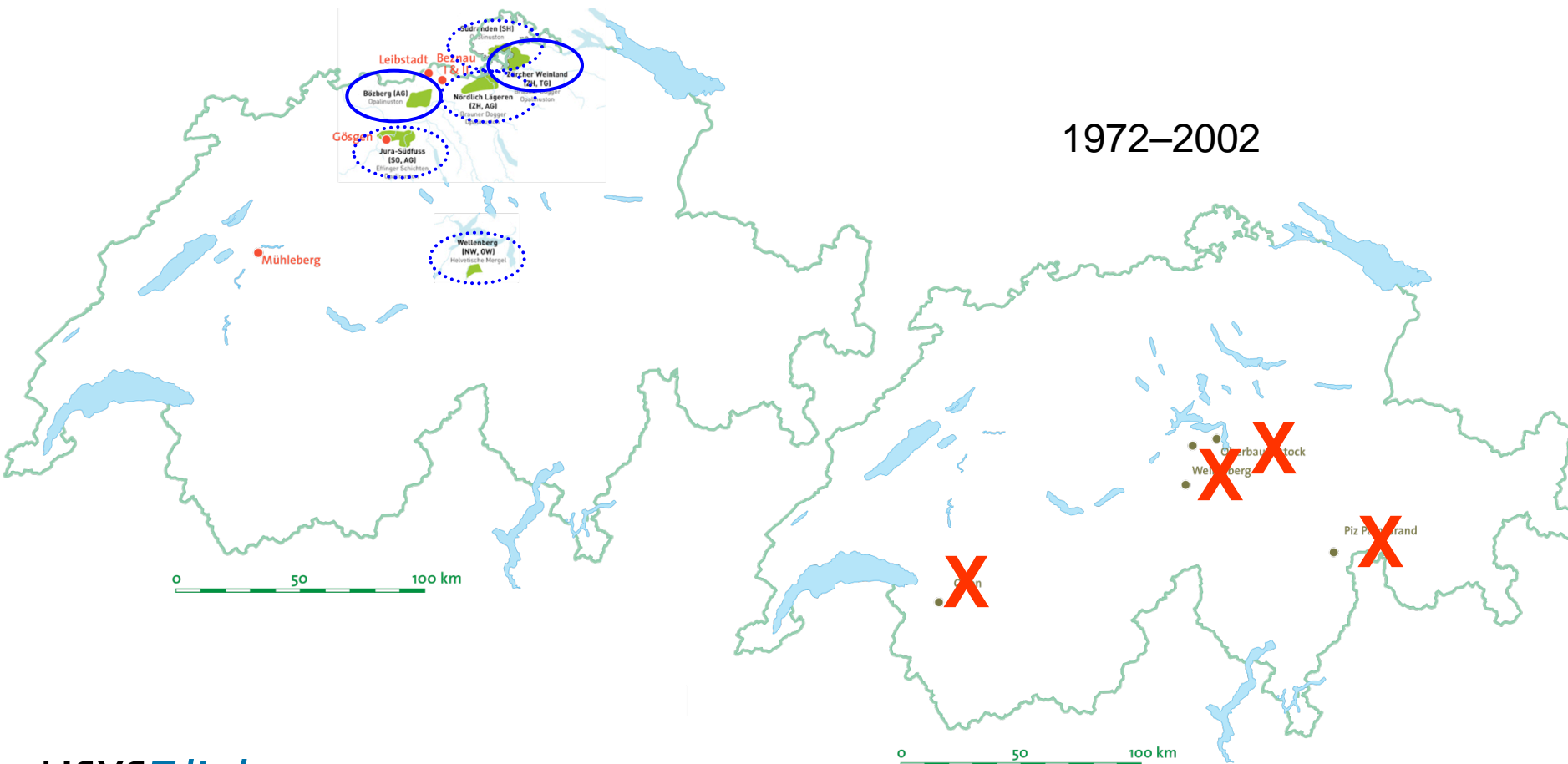
# Overview

- Background on the Swiss Case
- On the relation of distributions of burdens and the procedure to allocate them
- Data from Switzerland
- Conclusions

# Background – the Swiss Case

2008–2027

1972–2002



## A statement to start

- *The research to which I am referring indicates that people are more apt to accept decisions and their consequences if they have participated in making them. Although participation in the decisions [...] helps to legitimize such decisions, particularly in a society with democratic values, this is by no means the only source of legitimacy for the decisionmaking procedures involved in the distribution of benefits and harms. Legitimacy can also be derived from such factors as tradition, authority, or respect for the decision-maker's expertness or power. However, whenever it is perceived that the decisionmaking procedures are themselves not legitimately based, then the values, rules, and specific practices in distributing rewards and costs will all come into question. (Deutsch 1975:139)*

# Distributive and procedural justice

- **Distributive justice:** refers to the evaluation of the allocation outcome i.e., the final state of a process
  - Equity theory: all participants receive equal relative gains (e.g., Homans, 1965; Walster et al., 1978)
  - Rules according to the interrelation among people (e.g., Deutsch, 1975)
    - Equity principle: economic relations
    - Equality: maintenance of social relations
    - Need: personal development and welfare related
- **Procedural justice:** refers to evaluation of the allocation process
  - Procedural justice (Thibault and Walker 1975; 1978): voice
  - Lind & Tyler (1988) focus on the procedure >> fair process effect; attribute procedural fairness an own value
  - Leventhal (1980) criteria: consistency; bias suppression; accuracy; correctability; representativeness; ethicality

# People's justice evaluations (1/2)

Distr. justice

1-5 pt. scale; 1 = not agree at all; 5 = fully agree

Distr.  
principle

Issue	Principle	<i>M</i>	<i>SD</i>	<i>N</i>
<b>Income distribution</b>	Equal salary for all working people	2.32	1.17	2310
	Salary according to individual effort	3.54	1.03	2305
	Salary according to personal needs	2.49	1.16	2303
	A better salary for the worse off than in the past	2.74	1.16	2312
<b>Medical service</b>	Better service for those who pay more	2.57	1.27	2311
	Same service for all, independent of premium	3.59	1.19	2318
	Necessary service guaranteed for ill people	4.29	0.70	2325
	Restriction of service for people with unhealthy lifestyle	2.88	1.20	2314
<b>Environmental burden (repository)</b>	Area with highest electric consumption gets repository	2.70	1.18	2300
	Repository not in area already hosting NPP	2.84	1.19	2300
	Several repositories scattered over whole suitable siting area	2.82	1.22	2303
	Area with lowest number of people is host site	3.60	1.23	2315

Equity

Need

Utilitarianism

Source: own data 2007

# People's justice evaluations (2/2)

1-5 pt. scale; 1 = not important at all; 5=very important

Proc.  
principle

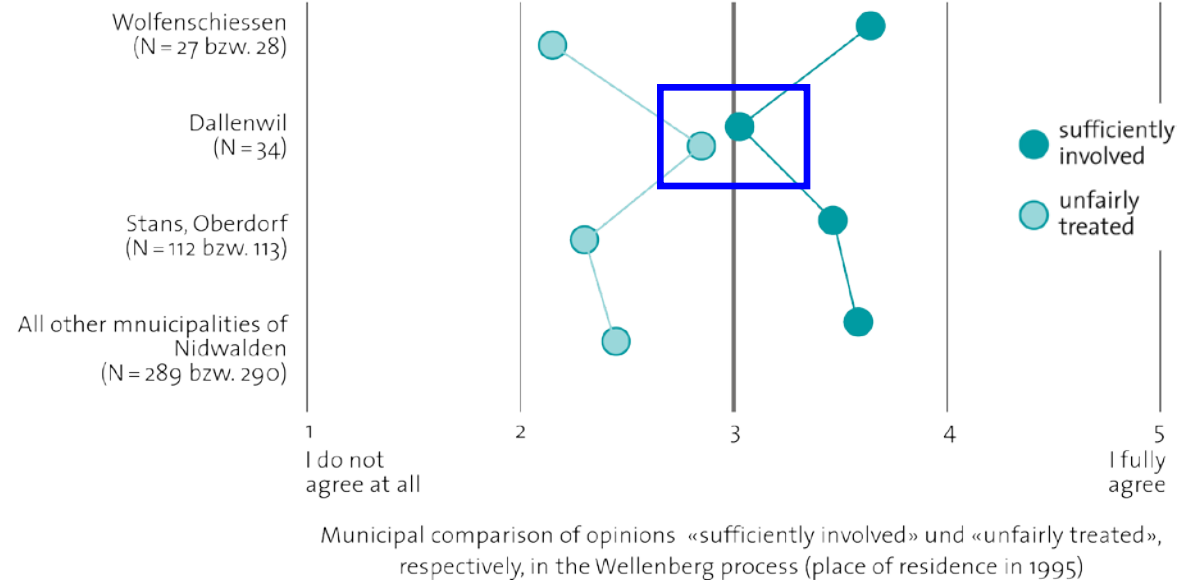
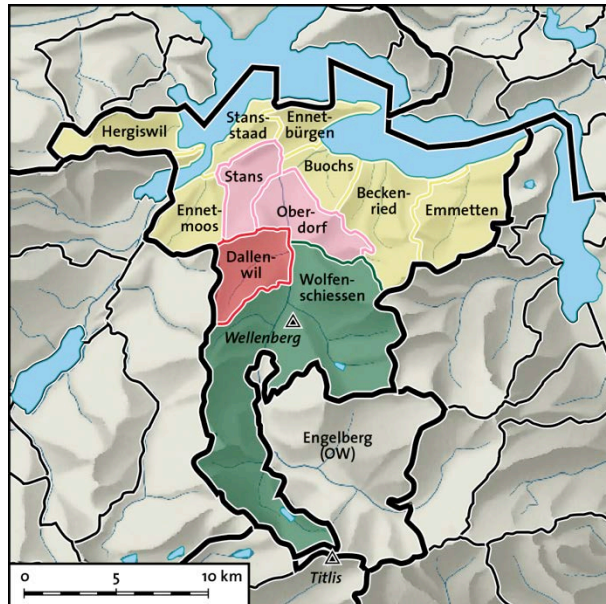
Issue	Issue	<i>M</i>	<i>SD</i>	<i>N</i>
Procedural fairness in the site selection process	Procedure is transparent und traceable	4.42	0.73	2298
	Host site options given	4.10	0.81	2282
	Early and extensive information provided	4.53	0.66	2306
	Active involvement of affected enabled	4.05	0.95	2303
	Financial resources for alternative expertise provided	4.16	0.90	2304

Voice

Source: Kämpfen et al. 2008

# Process violations have a long memory

Wellenberg project, ILLW (1986-2002)



Source: Krütli 2007



# Distributive vs procedural justice

## ■ The procedure counts

*"I am pleased to say that more recent research on procedural justice suggests a much more optimistic conclusion about the utility of social justice as a mechanism for resolving social conflicts than do the results of early research on distributive justice" (Tyler 2000: 119)*

## ■ It depends on what is at stake

*"when outcomes are unfair or have a negative valence, procedural justice is more likely to have a direct effect on individual's reactions ... when procedural justice is relatively low, outcome favorability is more apt to be positively correlated with individual's reactions (Brockner & Wiesenfeld 1996: 191)*

## ■ In the framing of radioactive waste

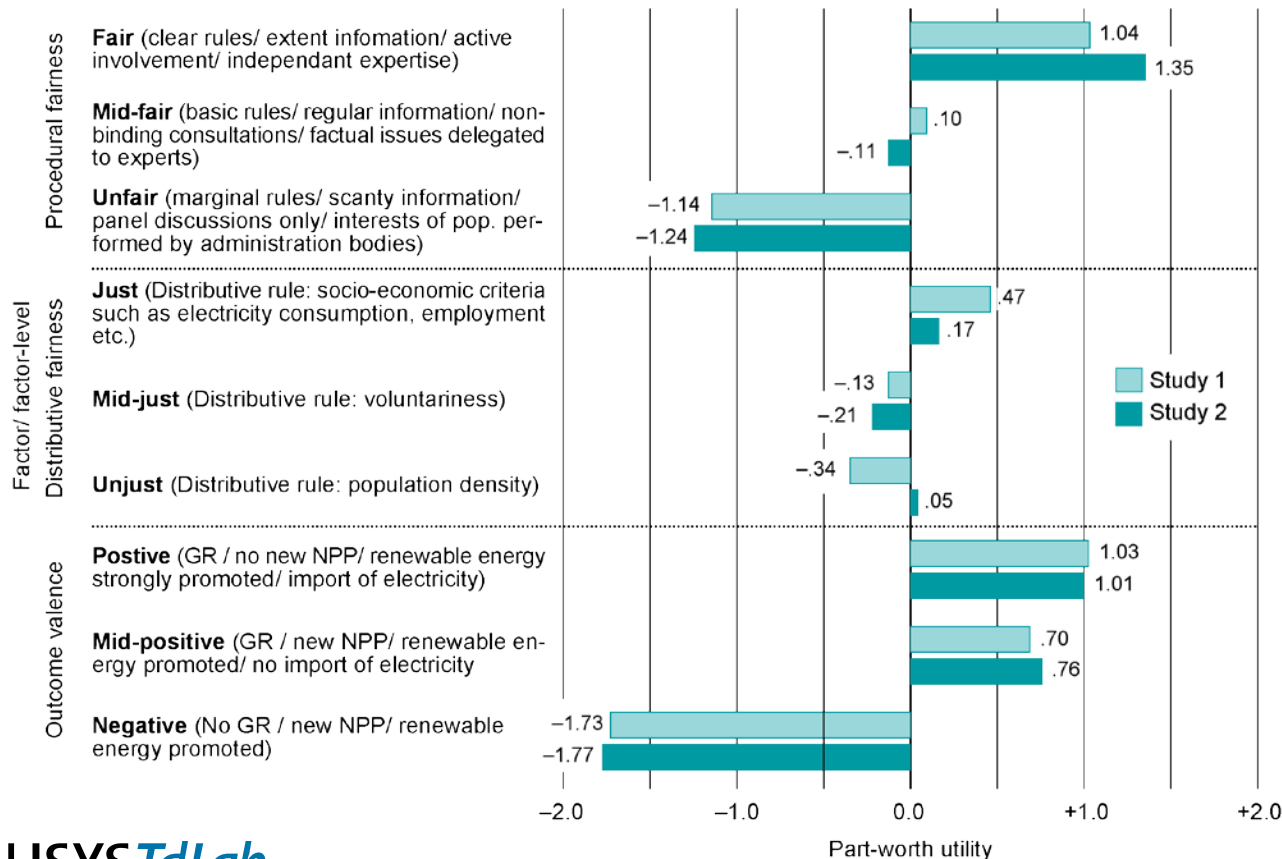
1-5 pt. scale; 1 = not agree at all; 5 = fully agree

Issue	Issue	<i>M</i>	<i>SD</i>	<i>N</i>
<b>Procedural &amp; distributive justice</b>	Procedure does not matter, outcome has to be fair	3.09	1.15	2314
	Any outcome accepted if resulting from a fair procedure	3.67	0.95	2326
	It depends: if a lot is at stake the outcome counts, if not the procedure	2.77	1.05	2311

# What counts more: the outcome (distribution) or the procedure (1/4)

## Study 1 (N = 53): 'Academia'

## Study 2 (N = 56): 'Non-academia'



Factor	Factor importance [%]	
	Study 1	Study 2
PF	30.38	34.22
DF	22.86	28.27
OV	46.76	47.51

Source: Krütli et al. 2012: 89

# What counts more: the outcome (distribution) or the procedure (2/4)

**Table 2** Example of a vignette

Source: Krütli et al. 2012: 87

The site selection procedure is well defined and transparent, open and comprehensive information is provided, the affected population is invited to actively participate in the decision-making process and may articulate their interests, the affected will be consulted in relevant aspects, a fund for independent expertise is available

A site has to be selected out of several regions providing (similar) appropriate safety conditions, in this final site selection step population density is the core criterion, i.e., the region featuring the lowest population density will be selected, the Swiss Federal Council takes the decision

A geological repository for radioactive waste will be built, the power consumption increases due to continuing electrification, for that reason it was recently decided to replace old nuclear power plants by new ones, simultaneously renewable energy systems will be funded strongly, no further import of electricity power is allowed

*Notes* this vignette (out of 11 vignettes evaluated by the subjects) represents the attribute-levels PF = fair, DF = unjust, OV = mid-positive (see Table 1). To facilitate comparison between the vignettes, each attribute was differently colored (here illustrated in different gray scales)

# What counts more: the outcome (distribution) or the procedure (3/4)

## Ref. Study 2

	Card No. (Vignette)	Factor / factor levels			Overall utility
		PF	DF	OV	
Fair repository site selection process	16	fair	just	positive	7.53
	6	fair	unjust	positive	7.41
	15	fair	just	mid-positive	7.27
	22*	fair	unjust	mid-positive	7.15
	21*	fair	mid-just	positive	7.15
	11	fair	mid-just	mid-positive	6.89
	14	mid-fair	just	positive	6.06
Distributive rules: no clear pattern	25*	mid-fair	unjust	positive	5.95
	27*	mid-fair	just	mid-positive	5.81
	4	mid-fair	unjust	mid-positive	5.69
	9	mid-fair	mid-just	positive	5.68
	8	mid-fair	mid-just	mid-positive	5.43
	18*	unfair	just	positive	4.94
	2	unfair	unjust	positive	4.82
	26*	fair	just	negative	4.75
	13	unfair	just	mid-positive	4.68
	5	fair	unjust	negative	4.63
	1	unfair	unjust	mid-positive	4.56
	7	unfair	mid-just	positive	4.56
	10	fair	mid-just	negative	4.37
	17*	unfair	mid-just	mid-positive	4.30
	23**	mid-fair	just	negative	3.29
	3	mid-fair	unjust	negative	3.17
No geological repository and new NPP	24*	mid-fair	mid-just	negative	2.90
	12	unfair	just	negative	2.16
	19*	unfair	unjust	negative	2.04
	20**	unfair	mid-just	negative	1.78

High utility

Low utility

Source: adapted from  
Krütli et al. 2012: 90

# What counts more: the outcome (distribution) or the procedure (4/4)

## Ref. Study 2

Card No. (Vignette)	Factor / factor levels			Overall utility
	PF	DF	OV	
16	fair	just	positive	7.53
6	fair	unjust	positive	7.41
15	fair	just	mid-positive	7.27
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1	unfair	unjust	mid-positive	4.56
7	unfair	mid-just	positive	4.56
10	fair	mid-just	negative	4.37
17*	unfair	mid-just	mid-positive	4.30
23**	mid-fair	just	negative	3.29
3	mid-fair	unjust	negative	3.17
24*	mid-fair	mid-just	negative	2.90
12	unfair	just	negative	2.16
19*	unfair	unjust	negative	2.04
20**	unfair	mid-just	negative	1.78

$M = 4.76$   
 $SD = 1.09$

$M = 4.06$   
 $SD = 1.39$

$M = 1.77$   
 $SD = 1.04$

High  
utility

Low  
utility

Source: adapted from  
Krütli et al. 2012: 90

# Survey 2011 (right after Fukushima): Process vs. distribution vs. context (1/3)

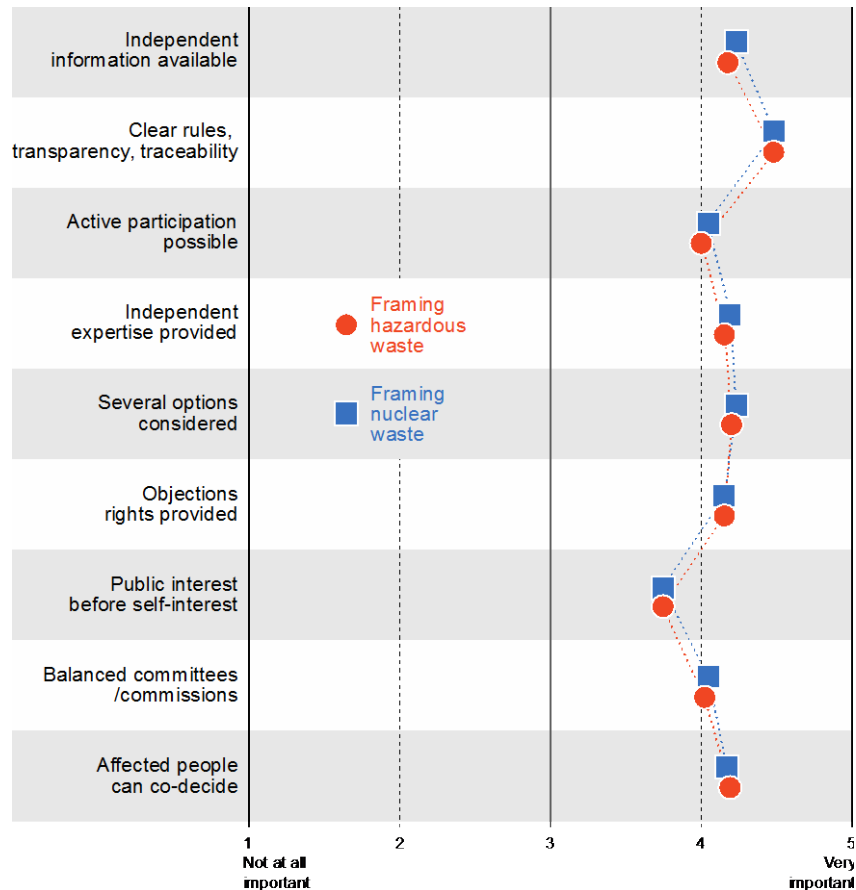
Preference of vignettes based on individual pair-wise comparison [%]		Procedure [unfair]: hardly any rules; little information available; no options for participation of affected population; no budget for independent expertise available.		Procedure [fair]: clear rules; comprehensive information; affected population has options for participation; budget for independent expertise available.	
Nuclear		Final selection of site (safety-technically comparable alternative site regions) [just]: site meeting different criteria (conflict potential, ecology, and other infrastructure facilities).		Final selection of site (safety-technically comparable alternative site regions) [unjust]: site with lowest population density.	
Procedure		Deep geological repository [positive]: will be built (referendum); above ground interim storage facilities will be closed.		Deep geological repository [negative]: will not be built (referendum); nuclear waste will be stored above ground for an indefinite time.	
79 (82)	F	Vignette A: <input type="checkbox"/>		Vignette B: <input type="checkbox"/>	
71 (69)	F				
62 (60)	Fair	Just	GR no		
53 (51)	Fair	Unjust	GR no		
33 (38)	Unfair	Just	GR yes		
27 (30)	Unfair	Unjust	GR yes		
22 (22)	Unfair	Just	GR no		
19 (16)	Unfair	Unjust	GR no		

N = 3.082

Source: Krütli et al. 2015

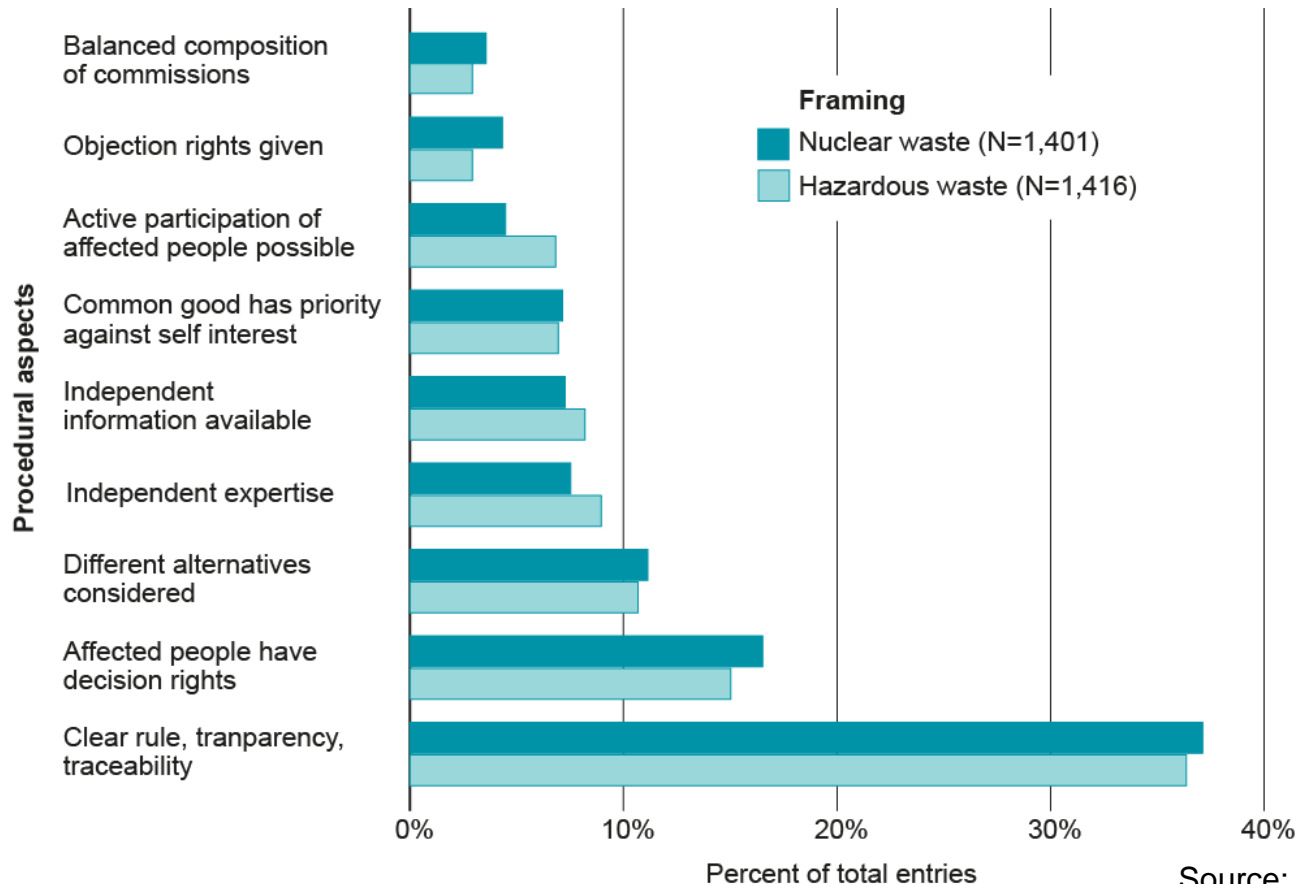
# Survey 2011:

## Procedural aspects are important (2/3)



Source: own data 2011

# Survey 2011: Clear rules, transparency, traceability are crucial (3/3)



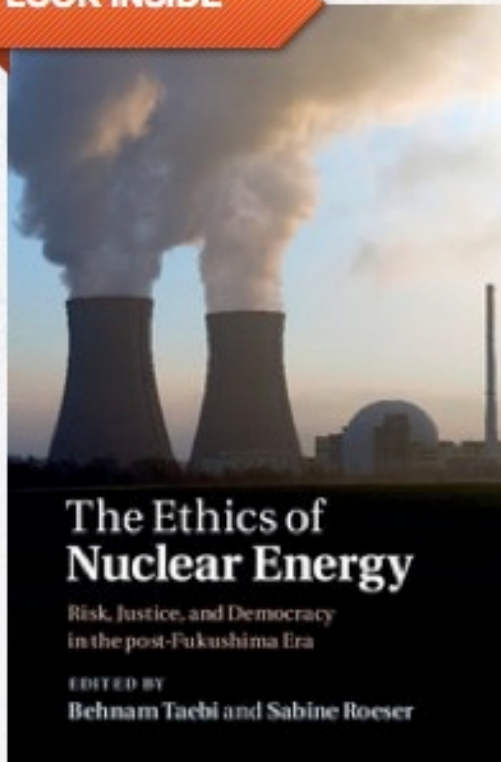
Source: Krütli et al. 2015



# Conclusions

- The process matters
- Violated procedural fairness might have a ‘long memory’
- Clear rules, transparency and meaningful information most important proc. Factors ahead of “voice” and “decision power”
- “Voice” my challenge technical community resulting in improved safety standards; it may fulfill democratic standards in form of a fair process and my lead to more legitimized decisions
- A fair procedure is a prerequisite for acceptance - but no guarantee

LOOK INSIDE



## The Ethics of Nuclear Energy

Risk, Justice, and Democracy in the post-Fukushima Era

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# Thank you for your attention

Questions?