



The Role of Experience in Judgment



AORE Association Chat
Jeff Baierlein, Viristar
December 14, 2023
viristar.com/aore-judgment

Outline

1. Relation between experience & judgment: research across industries
2. When experience may improve judgment
3. What research indicates does improve decision-making
4. Experience vs. training
5. Implications

Presenter:
Jeff Baierlein



- 37 years' professional experience, outdoor education & recreation
- Former Executive Director with Outward Bound USA
- Author, *Risk Management for Outdoor Programs*
- Director, Viristar



Experience & Judgment: the Research

2014 meta-analysis of 15 studies of nursing:

- Number of years of clinical practice not associated with effective clinical decision-making



Software Maintainers

2002 study of software maintainers:

- No reduction in frequency of major unexpected problems from tasks solved by very experienced maintainers compared to very inexperienced or medium experienced maintainers.
- Maintenance problem prediction not better with the most experienced maintainers



Google

Research by Google HR department:

- Research found that years of experience was a poor predictor of job performance.



Avalanche Safety

Colorado Avalanche Information Center:

- Study found that people involved in avalanches during the 2019-20 Colorado avalanche season had intermediate or advanced levels of experience.
- Researchers: people may have used their higher level of experience to spend more time traveling in avalanche terrain or traveling during more avalanche-prone conditions.

Avalanche researcher Ian McCammon:

- As experience grows, so does overconfidence in familiarity with terrain and avalanche hazard mitigation skills
- Dramatic increase in exposure to avalanche hazards results.



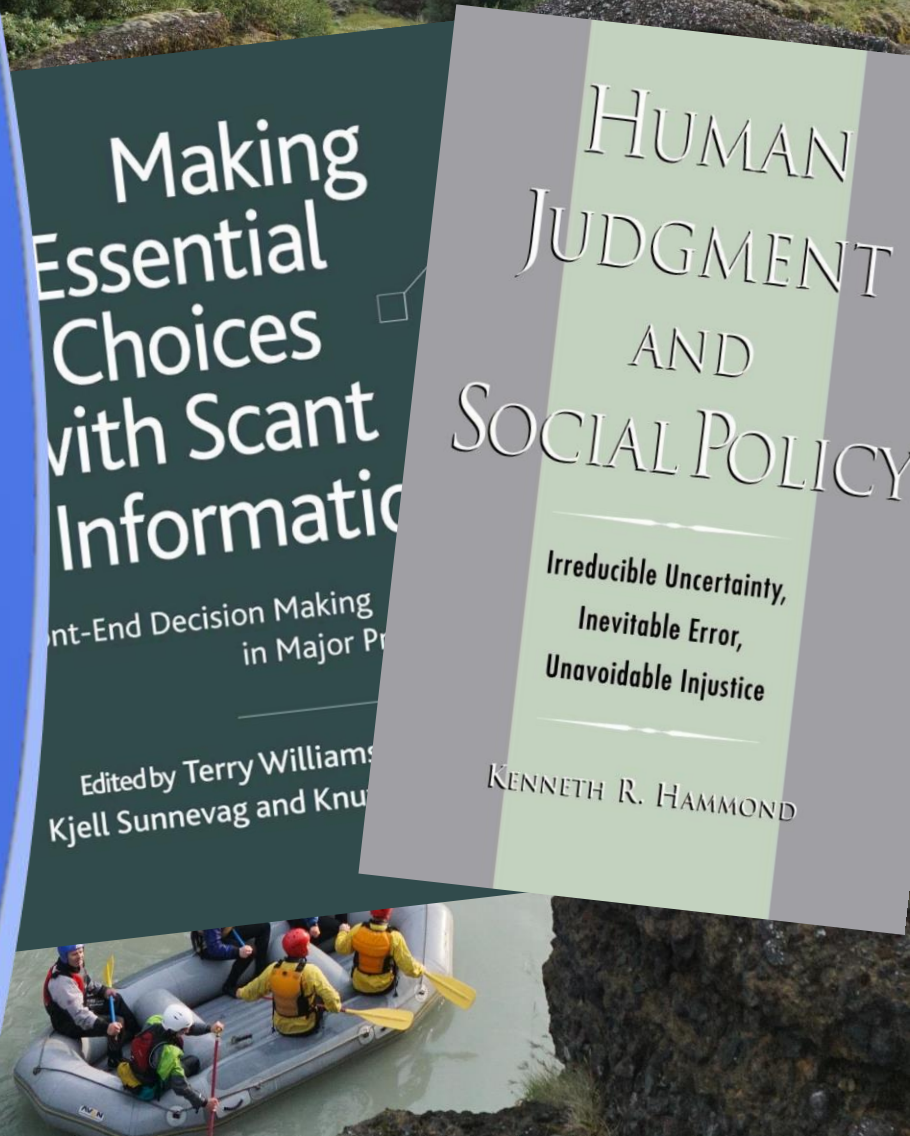
Conclusions

Norwegian researcher Dr. Geir Kirkebøen:

- “The quality of professionals’ judgment and decision-making is rarely improved through experience.”

Cognitive theorist Dr. Ken Hammond, former director of the Center for Judgment and Policy at the University of Colorado:

- In nearly every study of experts, experience has been shown to be unrelated to the empirical accuracy of expert judgments.



Conclusions

To use experience to improve judgment:

- It may help to follow experience with an evaluation process:
 - Self-reflection
 - External feedback
 - Other
- This may help assess appropriateness of decisions.



Experience vs. Training



Experience vs. Training

Experience and Training are Different

Basic training: acquisition of fundamental knowledge and skills (related to an activity)

A person who completed a law degree will practice law better than someone with no legal training



Experience vs. Training

Experience and Training are Different

A person with a degree in outdoor ed/rec will likely be better able to lead a whitewater canoe trip and make trip safety decisions than someone with no trip leader training

But: there is no compelling evidence a person with 20 years' trip leading experience will make better safety decisions than a person with two years' experience



Implications

- Prior experience alone does not justify hiring or approving a person to lead outdoor activities
- To assess outdoor leader judgment, do not rely on experience, but consider:
 - Reference checks
 - Successful completion of in-house training
 - On-the job observation e.g. by co-leader



Implications

To improve judgment in outdoor leaders, focus on:

1. Structurally **reduce the need to make difficult, high-consequence safety judgments**
2. Provide **procedural guidance** to support sound decision-making

Reduce Need for Difficult Decisions

- Institutionally eliminate risks (like night-time driving or excessively long travel days)
- Institutionally reduce high-risk situations (like underqualified staff, travel in hazardous terrain, or medically unsuitable participants)

Provide Decision Aids

- Checklists
- Policies and procedures
- Pre-established safety briefing documents
- Strict turn-around times on peak ascents
- Third-party consult via satellite phone or VHF radio



Conclusion

- Evidence suggests there is no correlation between level of experience and good judgment
- Debriefing or other evaluation of experience may support improved judgment
- Acquisition of essential skills & knowledge still important
- Seek other ways to improve judgment, including:
 - Improving interpersonal & cognitive skills
 - Structurally reducing need for difficult decisions
 - Providing decision aids





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