Biases in Human Prediction

Data Acquisition	Process	Output
• availability	• inconsistent	• wishful thinking
• selective perception	• heuristics	• illusion of control
• base rate insensitive	• non-linear	• response
• frequency	• conservative	
• illusory correlation	• environment	
• data representation	• sources	

Feedback

recall, overconfident, hindsight bias, chance
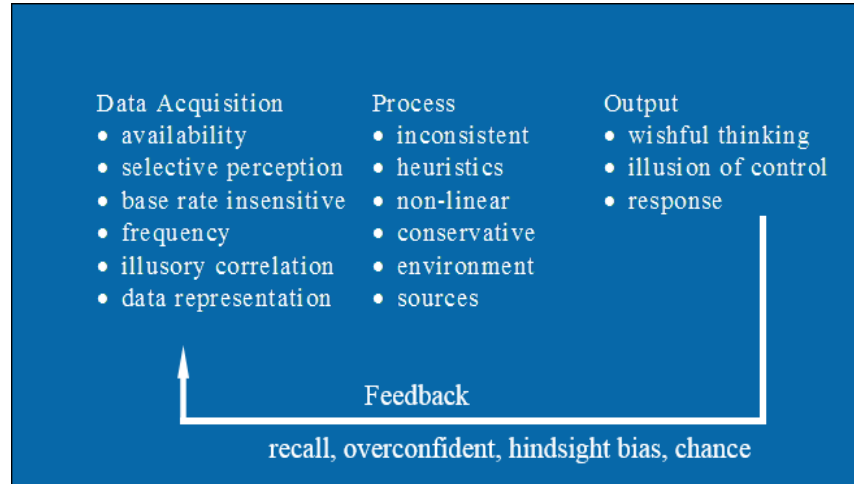
adapted from Hogarth, 1988

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Comparative Effectiveness

	Treatment options	
	T1	T2
Benefits		
B1		
B2		Probabilities go here
Harms		
H1		
H2		

Must tailor the probabilities to the individual patient.

SOURCE: Kattan MW, *Med Decis Making*, 2009.

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http://rcalc.ccf.org

Cleveland Clinic Risk Calculator Library

Department of Quantitative Health Sciences

SELECT A CONDITION ▾

BENIGN PROSTATIC HYPERPLASIA

For Patients Receiving Dutasteride Therapy

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Conclusions

More accurate predictions can be helpful for a lot of things!	The most accurate predictions presently available should be used, and these are likely from statistical prediction models.
Personalized predictions are key to effective informed consent and are the backbone of medical decision making.	Clinician judgment, risk groups, risk factor counting, and overall treatment effects from RCTs, are all less helpful.

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Michael W. Kattan, Ph.D.
Professor of Medicine, Epidemiology and Biostatistics,
Cleveland Clinic Lerner College of Medicine of Case Western Reserve
University
Chairman, Department of Quantitative Health Sciences, Cleveland Clinic
kattanm@ccf.org

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