

Can justice be fast and frugal?

Findings from the courtroom and the prison cell

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Overview

- Legal decision-makers and decision
 - Magistrates
 - Bail
- Ideal legal practice (Normative)
 - Due process versus crime control
- Judgment models (Descriptive)
 - Compensatory models and non-compensatory heuristics
- Research
 - Study 1
 - Study 2
- Psychological reality meets legal idealism (Prescriptive)
- Prison study (NOTE THAT THIS IS EXCLUDED FOR THE WEB AS IT IS IN PREPERATION FOR PUBLICATION)
- Conclusions so far...

Legal decision-makers and decision

Magistrates

- Over 95% of criminal cases are dealt with in magistrates' courts.
- Decisions are made by magistrates:
 - Majority are 'lay' magistrates.
 - Local people, no legal qualifications, training provided. Part-time, unpaid. Sit as bench.
 - Minority are stipendiary magistrates (district judges).
 - Legally qualified, 2 years experience. Full-time, paid. Sit alone.

Bail Decision

- Bail decision is frequent:
 - Arises when a case is adjourned for trial, sentence or appeal.
- Magistrates must decide whether to be punitive or not:
 - bail unconditionally?
 - OR
 - bail conditionally (e.g., curfew) or remand in custody (prison)?
- Decision has significant consequences:
 - Can influence decisions to convict and sentence (Davies, 1971).
 - Can adversely affect defendants, families, prisons, and public.

- Bail Act 1976 governs magistrates' bail decision-making and affords much discretion in selecting, weighting and integrating cues to make a decision:
 - E.g., “substantial grounds”, “regard to”, “appear to be relevant.”
- Other task conditions (Dhami & Ayton, 2001):
 - No rules of procedure.
 - Lack of information
 - Don't know predictive validities of cues.
 - No outcome feedback.
 - Heavy caseload.
 - Sporadic work pattern.

Ideal legal practice

- Decision quality assessed in terms of procedure.
- Legal ideals (Packer, 1968):
 - Crime control (“assembly-line conveyor belt”):
 - Search and weight only evidence of guilt, and not integrate evidence of innocence. Non-compensatory. Frugal.
 - Due process (“obstacle course”):
 - Search, weight and integrate all relevant information. Compensatory. Slow.
- Due process suggested as way to regulate magistrates’ bail decision-making (Galligan, 1987).

Judgment models

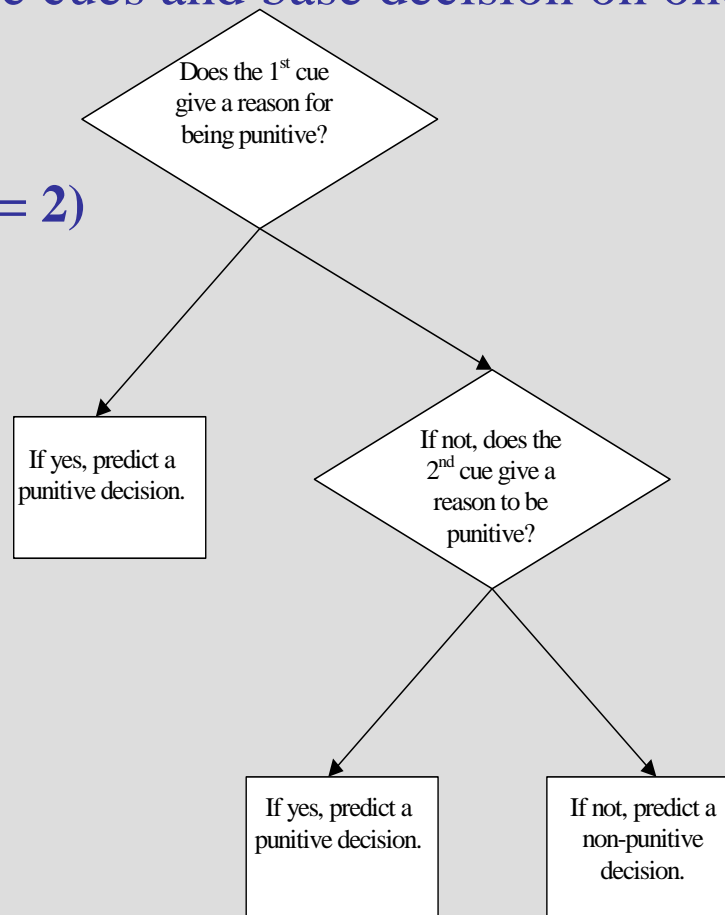
Compensatory Models

- Historically in judgment analysis/policy capturing linear regression models are used to infer judgment process from judgments made (Hammond et al., 1975).
 - Search all available cues (information), differentially weight and integrate multiple cues in compensatory way. Static.
- Non-statistical approximations (Dawes & Corrigan, 1974):
 - Franklin's rule: differential cue weights
 $\text{gender}(0)(0.72) + \text{age}(0)(0.67) + \text{offence}(1)(0.78) + \text{prosreq}(1)(0.72) + \dots + \text{comties}(1)(0.67)$
 - Dawes' rule: unit cue weights
 $\text{gender}(0) + \text{age}(0) + \text{offence}(1) + \text{prosreq}(1) + \dots + \text{comties}(1)$

Non-compensatory Heuristics

- “Fast and frugal” heuristics (Gigerenzer et al., 1999) search only small subset of available cues and base decision on one cue in a non-compensatory way.

Figure 1. Matching Heuristic ($K = 2$)
(Dhmi & Ayton, 1999)



Research

Study 1 (Dhimi & Ayton, 2001, *JBDM*)

- Are individual magistrates' bail decision-making policies compensatory or non-compensatory?

Method

- **Participants**

- Postal survey of 81 lay and stipendiary magistrates from random sample of 44 metropolitan and provincial courts, with mean 13 years experience.

- **Cases**

- 41 simulated cases (27 modeling + 7 holdouts + 7 duplicates).
- Orthogonal combination of 9 ‘legal’ and ‘extra-legal’ cues.
 - Gender, Race, Age, Seriousness of offence, Police bail decision, Prosecution request, Previous convictions & past bail record, Strength of prosecution case, Strength of defendant’s community ties.

- **Measures**

- Decide to (a) bail unconditionally, (b) with conditions, or (c) remand in custody.

Results (summary of idiographic analysis)

- Few differences in terms of lay/stipendiary, experience, court location.
- Approximately 50% non-punitive (unconditional bail) and punitive decisions (conditional bail/remand in custody).
- Each magistrates' policy modelled using 3 models:
 - Franklin's rule and Dawes' rule: Magistrates use all 9 cues.
 - Matching Heuristic: 75% of magistrates use 1 cue, 21% use 2 cues, and 4% use 3 cues.
 - Models developed on subset of the cases, and their predictive validity first tested on these cases.
 - Predictive validity of models also tested on another subset of the cases (i.e., cross-validation).

Figure 2. Median fit of the models across magistrates

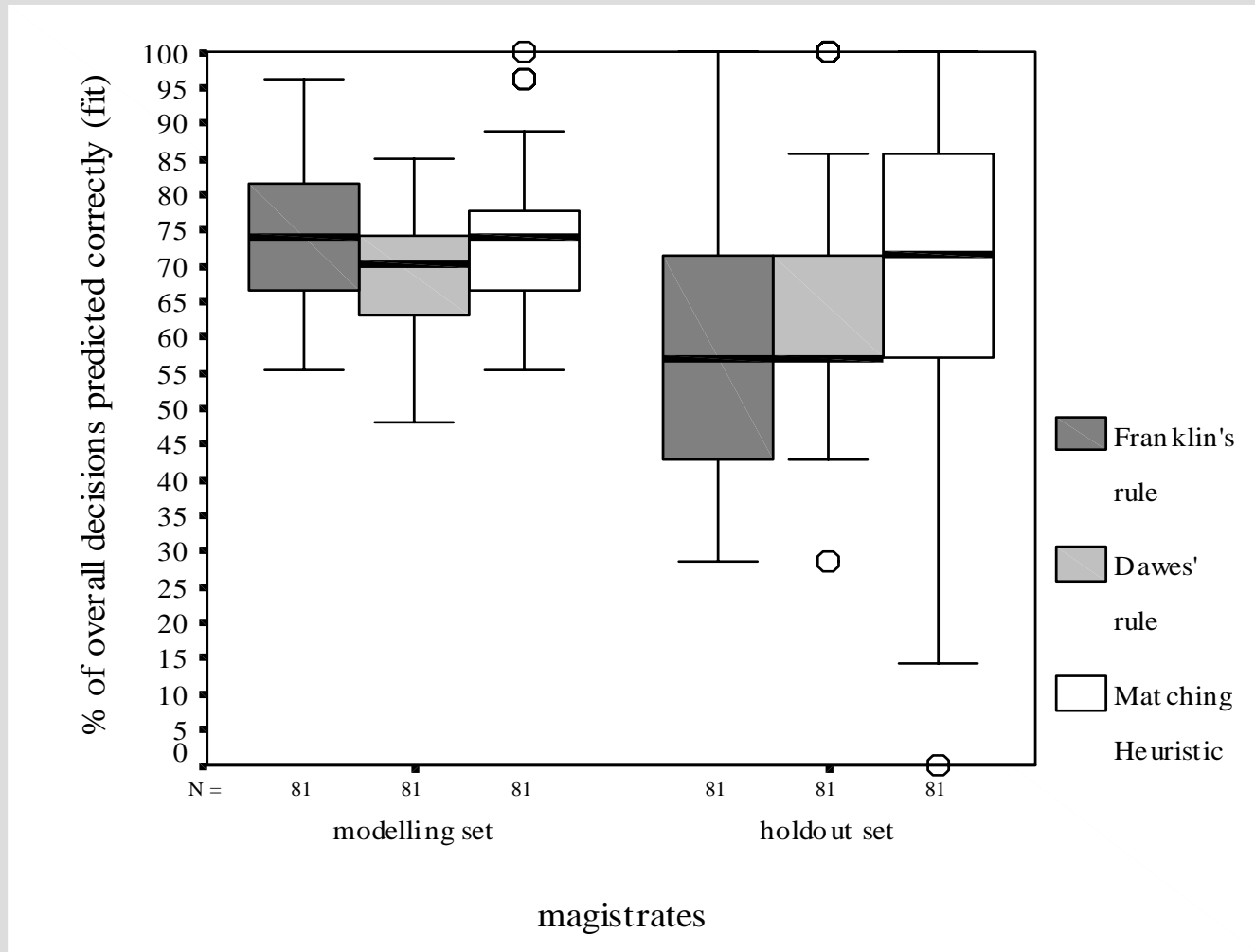
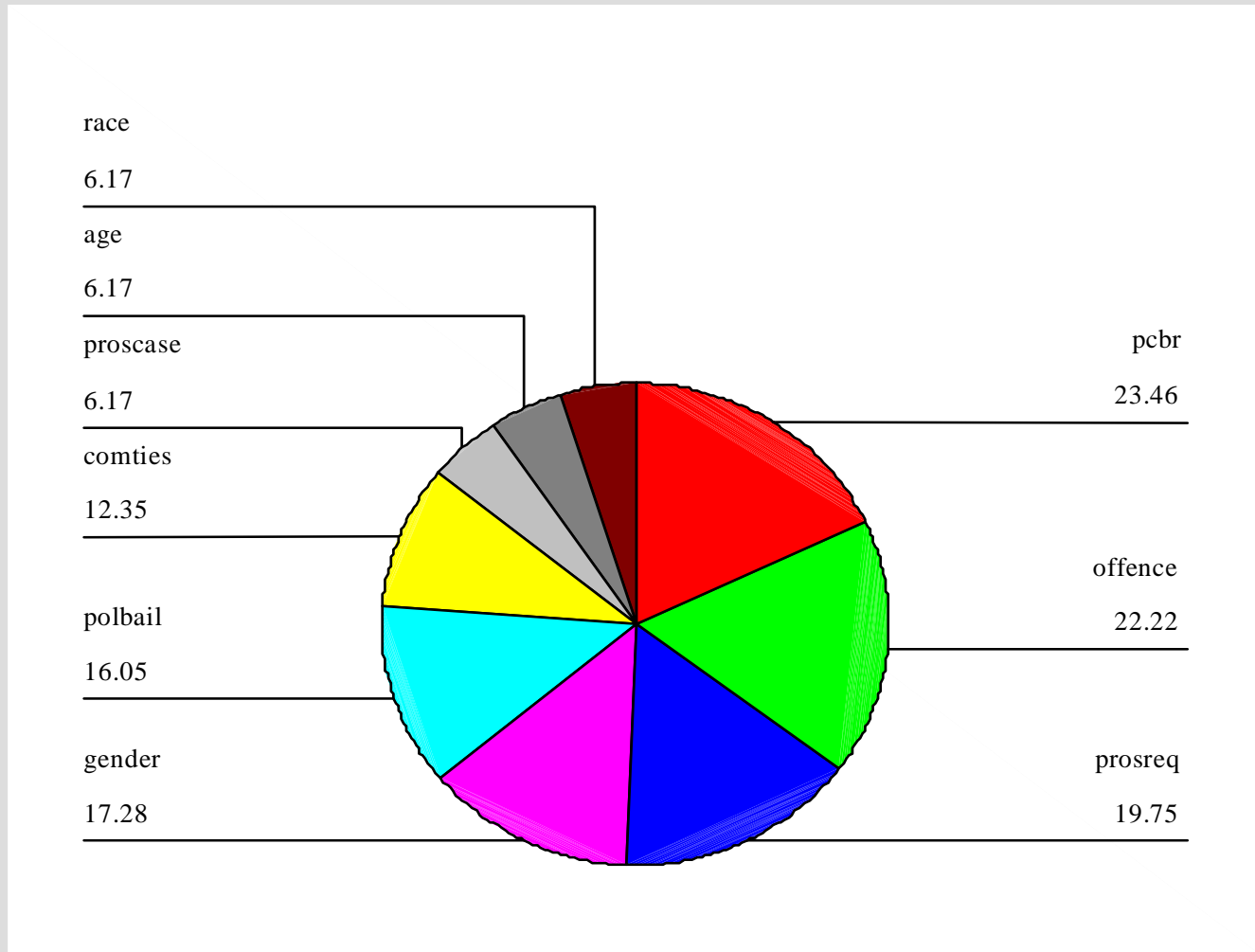


Figure 3. Percentage of magistrates who used each cue according to Matching Heuristic



Study 2 (Dhimi, 2003, *Psych. Sci.*)

- Can findings of Study 1 be generalized to the courtroom where benches of magistrates make decisions on real cases in real time?
- How long do magistrates take to make bail decisions?

Method

- Observers:
 - 2 observers conducted observations of bail hearings in two courts (A and B) over 4 month period.
 - Observers disguised as court participants.
 - Recorded details of the 25 cues available to magistrates (verbal and non-verbal) using a structured coding scheme.
 - Recorded the decision made on each case.
 - Measured duration of bail hearing with stopwatch.
- Observed:
 - Court A = 159 decisions made by 25 benches.
 - Court B = 183 decisions made by 32 benches.

Findings (court is unit of analysis)

- Low inter-cue correlations:
 - Court A: (Mean $r = .16$). Court B: (Mean $r = .07$).
- Decisions observed:
 - Court A: 41% punitive. Court B: 54% punitive.
- Duration of hearings:
 - Court A: ($M = 6.67$ minutes). Court B: ($M = 9.54$ minutes).
- Modelled each courts' policies using the 3 models:
 - Franklin's rule and Dawes' rule: Courts use all 25 cues.
 - Matching Heuristic: Courts use 3 cues.
 - Randomly selected 60 cross-validation cases; remainder used for modelling.
 - Developed and tested models 10 times.

Figure 4. Median fit of models for court A

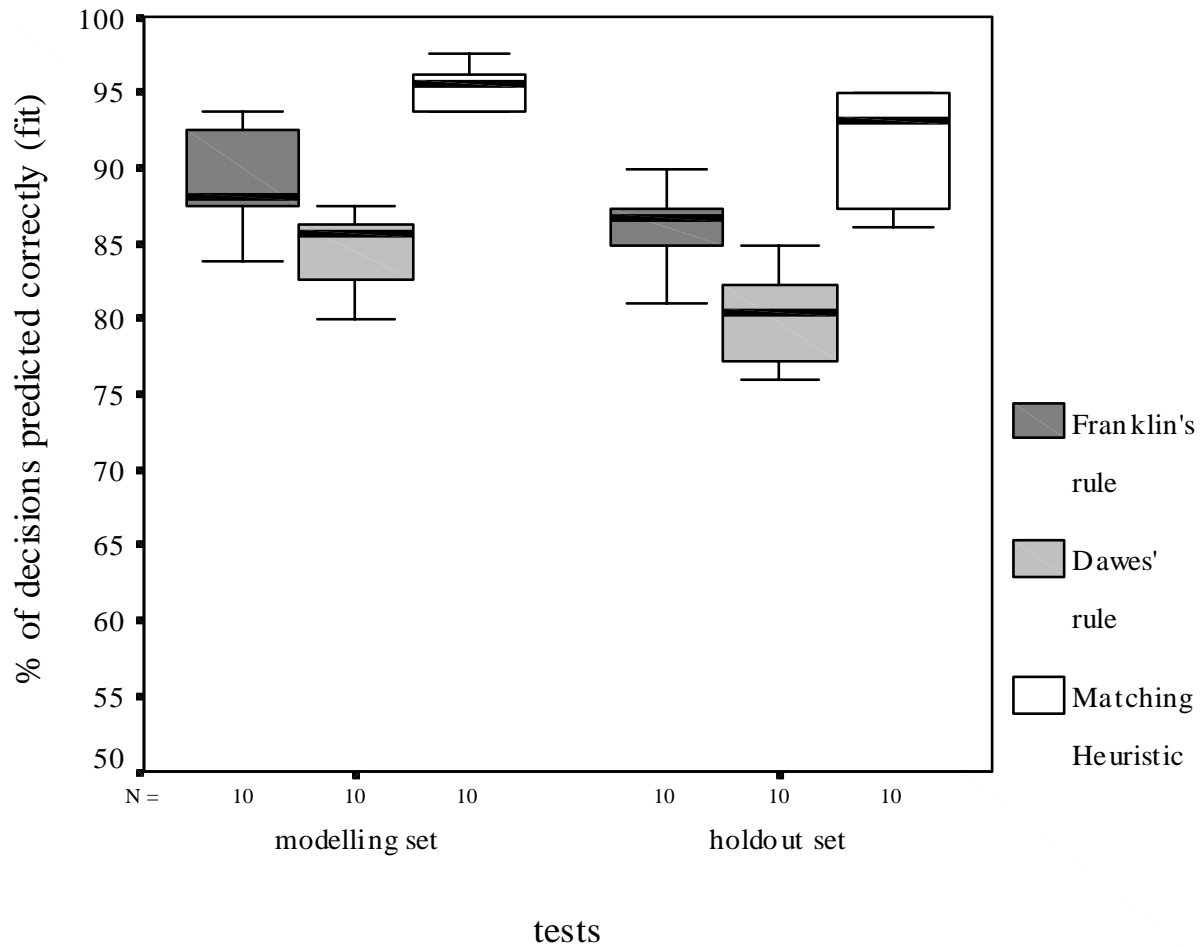
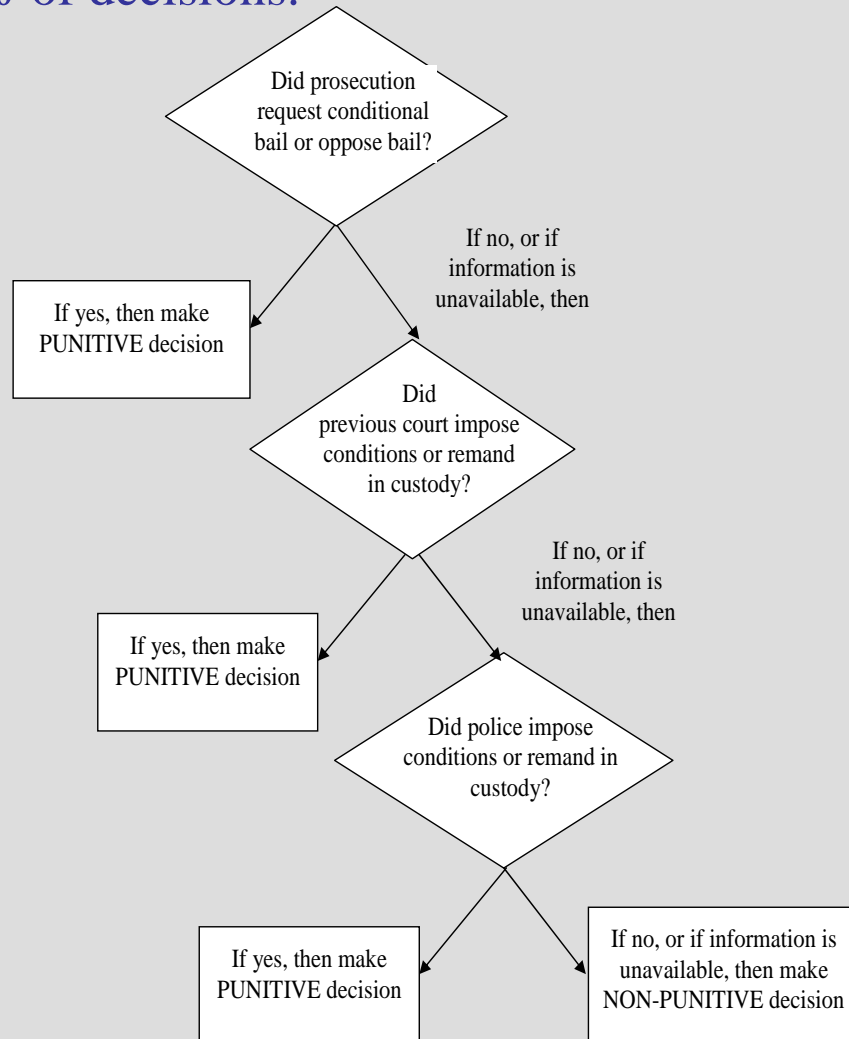


Figure 5. Cues used by Matching Heuristic for court A

Correctly predicts 95% of decisions.



Psychological reality meets legal idealism

- Therefore, individual magistrates deciding on simulated cases and benches deciding on real cases, in real time can be described as fast and frugal.
- Contradict mythology of legal decision making:

“the situation...depends on an enormous weight of balancing information, together with our training and experience”
(Lay magistrate).

- Why are legal decision makers fast and frugal?
 - Limited cognitive abilities.
 - Group decision-making (cognitive loafing).
 - Suboptimal task conditions.
- Should magistrates be fast and frugal?
 - Crime control: “assembly-line conveyor belt” = simple heuristic.
 - Due process: “obstacle course” = compensatory model.
 - Ideally, legal practice should conform to due process model.
 - Due process = Procedural fairness = Distributive fairness.
 - Procedural fairness requires consistency, bias-suppression, and accuracy (Leventhal, 1980).
- But, it could be argued that the legal model requires “supernatural powers of reason, limitless knowledge, and endless time” (Todd & Gigerenzer, 1999).

Conclusions so far...

- 1. Legal decision-makers may be fast and frugal but the legal (and prisoners') conception of justice is not.
- 2. It could be argued that simple heuristics are descriptively valid but lack prescriptive utility in the legal domain.
- 3. But, it could also be argued that simple heuristics are psychologically plausible and the legal ideals (our conceptions of justice) are unrealistic.

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