

- [Articles](#)
 - [Current Volume](#)
 - [Older Volumes](#)
 - [Editor's Choice](#)
 - [Replicable Articles](#)
 - [by Author](#)
 - [by Subject](#)
 - [Search](#)
- [Special Collections](#)
 - [About Special Collections](#)
 - [All Special Collections](#)
- [for Authors](#)
 - [General Information](#)
 - [Submission Guidelines](#)
 - [Peer Review and Publication](#)
 - [Copyright Information](#)
 - [Review Process](#)
 - [Submit a Paper](#)
 - [Submit a Letter](#)
 - [My Author Account](#)
- [for Readers](#)
 - [Get Email Alerts](#)
 - [How to cite DR](#)
- [About the Journal](#)
 - [Purpose](#)
 - [From the Publisher and Editor](#)
 - [Who's Who](#)
 - [Our Reviewers](#)
 - [Contact Us](#)
 - [Copyright & Legal](#)
 - [Privacy Policy](#)

Search DR journal and we

[Volume 29](#) - Article 24 | Pages 641–662

Modeling reproductive decisions with simple heuristics

By [Peter Todd](#), [Thomas Hills](#), [Andrew Hendrickson](#)

[Download PDF](#) [Submit a Response Letter](#)



Date received: 03 Apr 2013

Date published: 01 Oct 2013

Word count: 7012

Keywords: [age at first marriage](#), [ecological rationality](#), [heuristics](#), [mate choice](#), [mate search](#), [parental investment](#)

DOI: [10.4054/DemRes.2013.29.24](#)

Weblink: [You will find all publications in this Special Collection “Theoretical Foundations of the Analysis of Fertility” at http://www.demographic-research.org/special/16/](#)

Abstract

Background: Many of the reproductive decisions that humans make happen without much planning or forethought, arising instead through the use of simple choice rules or heuristics that involve relatively little information and processing. Nonetheless, these heuristic-guided decisions are typically beneficial, owing to humans’ ecological rationality - the evolved fit between our constrained decision mechanisms and the adaptive problems we face.

Objective: This paper reviews research on the ecological rationality of human decision making in the domain of reproduction, showing how fertility-related decisions are commonly made using various simple heuristics matched to the structure of the environment in which they are applied, rather than being made with information-hungry mechanisms based on optimization or rational economic choice.

Methods: First, heuristics for sequential mate search are covered; these heuristics determine when to stop the process of mate search by deciding that a good-enough mate who is also mutually interested has been found, using a process of aspiration-level setting and assessing. These models are tested via computer simulation and comparison to demographic age-at-first-marriage data. Next, a heuristic process of feature-based mate comparison and choice is discussed, in which mate choices are determined by a simple process of feature-matching with relaxing standards over time. Parental investment heuristics used to divide resources among offspring are summarized. Finally, methods for testing the use of such mate choice heuristics in a specific population over time are then described.

Author's Affiliation

[Peter Todd](#) - Indiana University, United States of America [[Email](#)]

[Thomas Hills](#) - University of Warwick, United Kingdom [[Email](#)]

[Andrew Hendrickson](#) - Indiana University, United States of America [[Email](#)]

Similar articles in Demographic Research

» [When not to have another baby: An evolutionary approach to low fertility](#)
Volume 30 - Article 37 | Keywords: [parental investment](#)

» [Family size and intergenerational social mobility during the fertility transition: Evidence of resource dilution from the city of Antwerp in nineteenth century Belgium](#)
Volume 24 - Article 14 | Keywords: [parental investment](#)

» [The effect of education on the timing of marriage in Kenya](#)
Volume 12 - Article 1 | Keywords: [age at first marriage](#)

Articles

» [Current Volume](#)

» [Older Volumes](#)

» [Volume 29](#)

» [Editor's Choice](#)

» [Replicable Articles](#)

» [by Author](#)

» [by Subject](#)

» [Search](#)

Citations

Cited References: 41

» [View the references of this article](#)

Download to Citation Manager

» [RIS format](#)

» [BibTeX format](#)

Similar Articles

PubMed

» [Articles by Peter Todd](#)

[»Articles by Thomas Hills](#)

[»Articles by Andrew Hendrickson](#)

Google Scholar

[»Articles by Peter Todd](#)

[»Articles by Thomas Hills](#)

[»Articles by Andrew Hendrickson](#)

Jump to Article

Volume	Page
<input type="text"/>	<input type="text"/>

Volume	Article ID
<input type="text"/>	<input type="text"/>

© 1999–2018 [Max Planck Society](#)

- [Articles](#)
- [Current Volume](#)
- [Older Volumes](#)
- [Editor's Choice](#)
- [Replicable Articles](#)
- [by Author](#)
- [by Subject](#)
- [Search](#)

- [Special Collections](#)
- [About Special Collections](#)
- [All Special Collections](#)

- [for Authors](#)
- [General Information](#)
- [Submission Guidelines](#)
- [Peer Review and Publication](#)
- [Copyright Information](#)
- [Review Process](#)
- [Submit a Paper](#)
- [Submit a Letter](#)
- [My Author Account](#)

- [for Readers](#)
- [Get Email Alerts](#)
- [How to cite DR](#)

- [About the Journal](#)
- [Purpose](#)
- [From the Publisher and Editor](#)
- [Who's Who](#)
- [Our Reviewers](#)
- [Contact Us](#)
- [Copyright & Legal](#)
- [Privacy Policy](#)