Title of Article: Subtitle Here

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[2]Another Department, Institution, City, Country

Keywords: (a series of uncapitalized words, separated with commas)

ABSTRACT

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AUTHOR SUMMARY

Author summary here. Author summary is required for *Computational Psychiatry* articles.

SAMPLE SECTION

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Sample Subsection

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SAMPLE EQUATIONS

$$\rho^\pi = \frac{RI + \mathbb{E}_{\pi([L,\tau_L]|\text{post})}\left[C_L(\tau_{\text{Pav}} + \tau_L)\right] + \int_0^P dw\ \mathbb{E}_{\pi_{w_L}}\left[\sum_{n_{L|[\text{pre},w]}} C_L(\tau_L)\right]}{P + \mathbb{E}_{\pi([L,\tau_L]|\text{post})}[\tau_L] + \tau_{\text{Pav}} + \int_0^P dw\ \mathbb{E}_{\pi_{w_L}}\left[\sum_{n_{L|[\text{pre},w]}} \tau_L\right]} \tag{1}$$

As long as $RI - K_L P > \frac{1}{\beta}$

$$\left.\begin{aligned} \rho^\pi &= \frac{\beta(RI + K_L\tau_{\text{Pav}}) - 1}{\beta(P + \tau_{\text{Pav}})} \\ \text{and} \qquad \mathbb{E}[\tau_L|\text{post}] &= \frac{P + \tau_{\text{Pav}}}{\beta(RI - K_L P) - 1} \end{aligned}\right\} \tag{2}$$

an open access journal

Citation: Niyogi, R. K., Breton, Y.-A., Solomon, R. B., Conover, K., Shizgal, P., Dayan, P. (2015). Optimal indolence: a normative microscopic approach to work and leisure. Computational Psychiatry, 1

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Author Name
Corresponding author email address

JARGON DEFINITIONS

Symbol	Meaning
Term	Definition
Term	Definition

Jargon Samples in margin

Intrinsically beneficial:
The characteristic of leisure that we enjoy most.

$\beta \in [0, \infty)$:
inverse temperature or degree of stochasticity-determinism parameter.

One common decision is between working (performing an employer-defined task) and engaging in leisure (activities pursued for oneself). Working leads to external rewards such as food and money; whereas leisure is supposed to be intrinsically beneficial (otherwise one would not want to engage in it). $\beta \in [0, \infty)$ is often used to indicate an important parameter, the stochasticity-determinism parameter.

Simple code sample

```
procedure bubbleSort( A : list of sortable items )
    n = length(A)
    repeat
       newn = 0
       for i = 1 to n-1 inclusive do
          if A[i-1] > A[i] then
             swap(A[i-1], A[i])
             newn = i
          end if
       end for
       n = newn
    until n = 0
end procedure
```

Algorithm environment

Algorithm 1 A sample in an algorithm environment.

if $i \geq maxval$ **then**
  $i \leftarrow 0$
else
  if $i + k \leq maxval$ **then**
    $i \leftarrow i + k$
  end if
end if

ITEMIZED LISTS

Roman list:

(i) at high payoffs, subjects work almost continuously.
(ii) at low payoffs, they engage in leisure all at once, in long bouts after working.
(iii) subjects work continuously for the entire price duration, as long as the price is not very long;
(iv) the duration of leisure bouts is variable.

Numbered list:

1. at high payoffs, subjects work almost continuously, engaging in little leisure inbetween work bouts;
2. at low payoffs, they engage in leisure all at once, in long bouts after working, rather than distributing the same amount of leisure time into multiple short leisure bouts;
3. subjects work continuously for the entire price duration, as long as the price is not very long (as shown by an analysis conducted by Y-AB, to be published separately);
4. the duration of leisure bouts is variable.

Bulleted list:

- at high payoffs, subjects work almost continuously, engaging in little leisure inbetween work bouts;
- at low payoffs, they engage in leisure all at once, in long bouts after working, rather than distributing the same amount of leisure time into multiple short leisure bouts;
- subjects work continuously for the entire price duration, as long as the price is not very long (as shown by an analysis conducted by Y-AB, to be published separately);
- the duration of leisure bouts is variable.

SAMPLE CITATIONS

For general information on the correct form for citations using the Chicago 16th edition format, see the following site, and click on the author-date tab:
Chicago Manual of Style: author-date Citation and References

NATBIB CITATION MARK UP

Single citations

Type	Results
`\citet{jon90}`	Jones et al. (1990)
`\citet[chap. 2]{jon90}`	Jones et al. (1990, chap. 2)
`\citep{jon90}`	(Jones et al., 1990)
`\citep[chap. 2]{jon90}`	(Jones et al., 1990, chap. 2)
`\citep[see][]{jon90}`	(see Jones et al., 1990)
`\citep[see][chap. 2]{jon90}`	(see Jones et al., 1990, chap. 2)
`\citet*{jon90}`	Jones, Baker, and Williams (1990)
`\citep*{jon90}`	(Jones, Baker, and Williams, 1990)

For example, some citations from the CompPsychSample bibliography: citet:Anderson (1983), citep: (Baggio et al., in press), and cite*: Anderson (1983).

Multiple citations

Multiple citations may be made by including more than one citation key in the `\cite` command argument.

Type	Results
`\citet{jon90,jam91}`	Jones et al. (1990); James et al. (1991)
`\citep{jon90,jam91}`	(Jones et al., 1990; James et al. 1991)
`\citep{jon90,jon91}`	(Jones et al., 1990, 1991)
`\citep{jon90a,jon90b}`	(Jones et al., 1990a,b)

For example, multiple citations from the CompPsychSample bibliography: citet: Anderson (1983); Baggio et al. (in press), citep: (Anderson, 1983; Baggio et al., in press).

As you see, the citations are automatically hyperlinked to their reference in the bibliography.

SAMPLE FIGURES

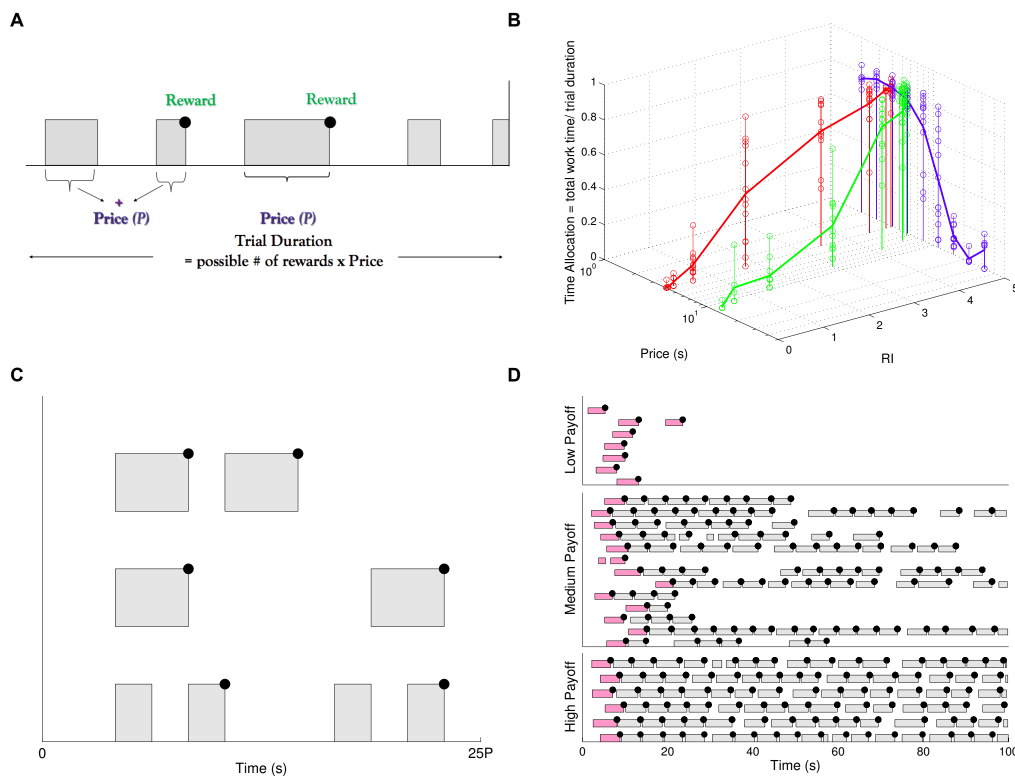

Figure 1. (Colour online) **Task and key features of the data.**
A) Cumulative handling time (CHT) task. Grey bars denote work (depressing a lever), white gaps show leisure. The subject must accumulate work up to a total period of time called the *price* (P) in order to obtain a single reward (black dot) of subjective reward intensity RI. The trial duration is $25 \times$ price (plus 2s each time the price is attained, during which the lever is retracted so it cannot work; not shown).

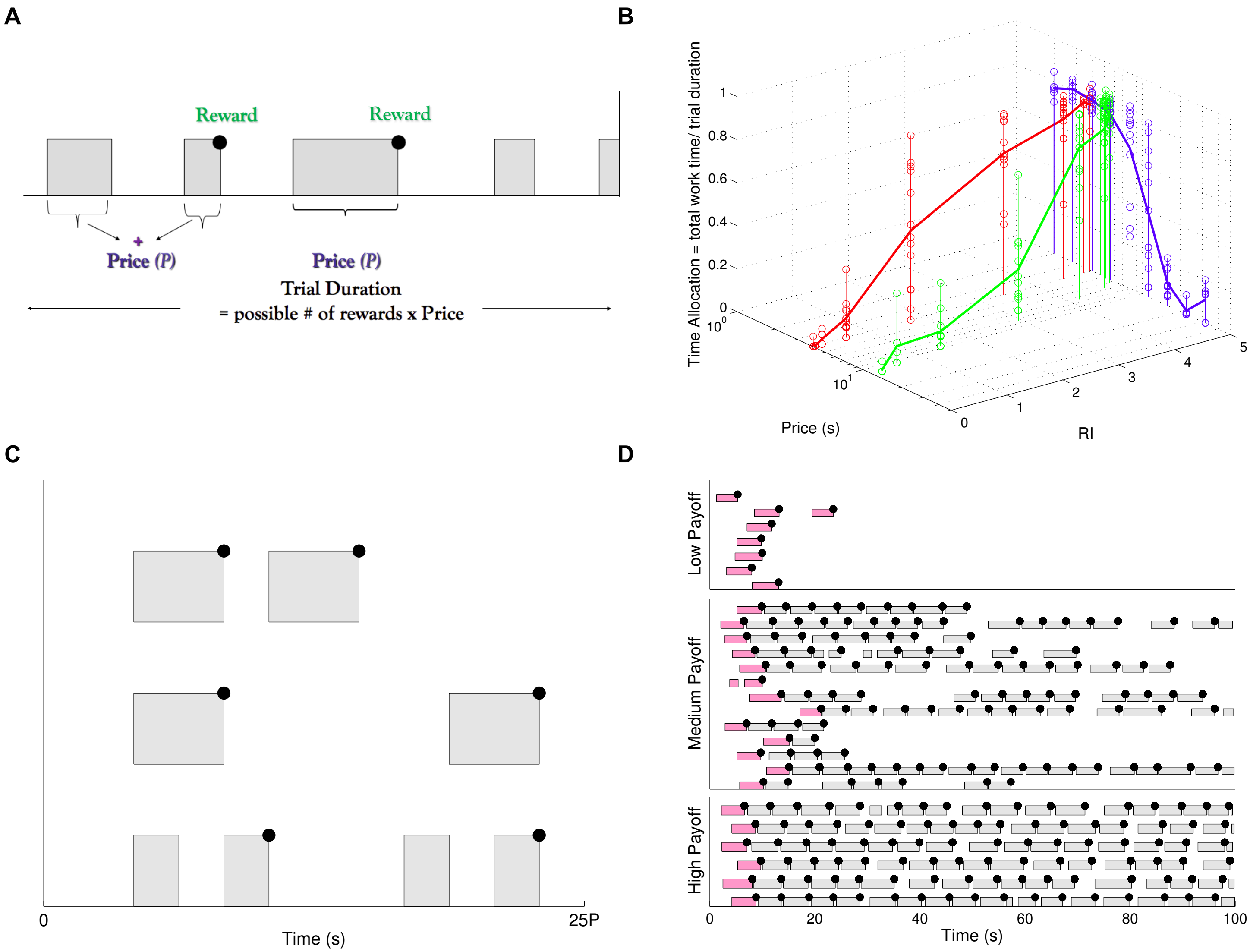

Figure 2. (Colour online) **Task and key features of the data.**
A) Cumulative handling time (CHT) task. Grey bars denote work (depressing a lever), white gaps show leisure. The subject must accumulate work up to a total period of time called the *price* (P) in order to obtain a single reward (black dot) of subjective reward intensity RI. The trial duration is $25 \times$ price (plus 2s each time the price is attained, during which the lever is retracted so it cannot work; not shown).

SAMPLE TABLES

Table 1. Time of the Transition Between Phase 1 and Phase 2[a]

Run	Time (min)
$l1$	260
$l2$	300
$l3$	340
$h1$	270
$h2$	250
$h3$	380
$r1$	370
$r2$	390

[a] Table note text here.

Table 2. Sample table taken from [treu03]

POS	chip	ID	X	Y	RA	DEC	IAU$\pm$ δ IAU	IAP1$\pm$ δ IAP1	IAP2 $\pm$ δ IAP2	star	E	Comment
0	2	1	1370.99	57.35[a]	6.651120	17.131149	21.344$\pm$0.006[b]	2 4.385$\pm$0.016	23.528$\pm$0.013	0.0	9	-
0	2	2	1476.62	8.03	6.651480	17.129572	21.641$\pm$0.005	2 3.141$\pm$0.007	22.007$\pm$0.004	0.0	9	-
0	2	3	1079.62	28.92	6.652430	17.135000	23.953$\pm$0.030	2 4.890$\pm$0.023	24.240$\pm$0.023	0.0	-	-
0	2	4	114.58	21.22	6.655560	17.148020	23.801$\pm$0.025	2 5.039$\pm$0.026	24.112$\pm$0.021	0.0	-	-
0	2	5	46.78	19.46	6.655800	17.148932	23.012$\pm$0.012	2 3.924$\pm$0.012	23.282$\pm$0.011	0.0	-	-
0	2	6	1441.84	16.16	6.651480	17.130072	24.393$\pm$0.045	2 6.099$\pm$0.062	25.119$\pm$0.049	0.0	-	-
0	2	7	205.43	3.96	6.655520	17.146742	24.424$\pm$0.032	2 5.028$\pm$0.025	24.597$\pm$0.027	0.0	-	-
0	2	8	1321.63	9.76	6.651950	17.131672	22.189$\pm$0.011	2 4.743$\pm$0.021	23.298$\pm$0.011	0.0	4	edge

Table 2 is published in its entirety in the electronic edition of the *Astrophysical Journal*.

[a] Sample footnote for table 2.

[b] Another sample footnote for table 2.

Table 3. Here is a caption for a table that is found in landscape mode.

POS	chip	ID	X	Y	RA	DEC	IAU$\pm$ δ IAU	IAP1$\pm$ δ IAP1	IAP2 $\pm$ δ IAP2	star	E	Comment
0	2	1	1370.99	57.35[a]	6.651120	17.131149	21.344$\pm$0.006[b]	2 4.385$\pm$0.016	23.528$\pm$0.013	0.0	9	-
0	2	2	1476.62	8.03	6.651480	17.129572	21.641$\pm$0.005	2 3.141$\pm$0.007	22.007$\pm$0.004	0.0	9	-
0	2	3	1079.62	28.92	6.652430	17.135000	23.953$\pm$0.030	2 4.890$\pm$0.023	24.240$\pm$0.023	0.0	-	-
0	2	4	114.58	21.22	6.655560	17.148020	23.801$\pm$0.025	2 5.039$\pm$0.026	24.112$\pm$0.021	0.0	-	-
0	2	5	46.78	19.46	6.655800	17.148932	23.012$\pm$0.012	2 3.924$\pm$0.012	23.282$\pm$0.011	0.0	-	-
0	2	6	1441.84	16.16	6.651480	17.130072	24.393$\pm$0.045	2 6.099$\pm$0.062	25.119$\pm$0.049	0.0	-	-
0	2	7	205.43	3.96	6.655520	17.146742	24.424$\pm$0.032	2 5.028$\pm$0.025	24.597$\pm$0.027	0.0	-	-
0	2	8	1321.63	9.76	6.651950	17.131672	22.189$\pm$0.011	2 4.743$\pm$0.021	23.298$\pm$0.011	0.0	4	edge

Table 2 is published in its entirety in the electronic edition of the *Astrophysical Journal*.

[a] Sample footnote for table 2.

[b] Another sample footnote for table 2.

Example of table continuing over pages:

Table 4: ApJ costs from 1991 to 2013

Year	**Subscription cost ($)**	**Publication charges ($/page)**
1991	600	100
1992	650	105
1993	550	103
1994	450	110
1995	410	112
1996	400	114
1997	525	115
1998	590	116
1999	575	115
2000	450	103
2001	490	90
2002	500	88
2003	450	90
2004	460	88
2005	440	79
2006	350	77
2007	325	70
2008	320	65
2009	190	68

Table continued on next page

Table 4, *continued from previous page.*

ApJ costs from 1991 to 2013

Year	Subscription cost ($)	Publication charges ($/page)
2010	280	70
2011	275	68
2012	150	56
2013	140	55

SUPPORTIVE INFORMATION

Here you enter further sources of information, if desired.

ACKNOWLEDGMENTS

Enter your acknowledgments here.

AUTHOR CONTRIBUTIONS

Who helped formulate the project, who supplied data, analyses and experiments, etc.

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A: SAMPLE APPENDIX SECTION

We derive the result in Eq. (2). We consider a linear $C_L(\tau_L + \tau_{\text{Pav}}) = K_L(\tau_L + \tau_{\text{Pav}})$, and make two further simplifications: (i) the subject does not engage in leisure in the pre-reward state (and so works for the whole price when it works); and (ii) *a priori*, arbitrarily long leisure durations are possible ($\lambda = 0$). Then the reward rate in Eq. (1) becomes

$$\rho^\pi = \frac{RI + K_L\{\,\mathbb{E}[\tau_L|\text{post}] + \tau_{\text{Pav}}\}}{P + \mathbb{E}[\tau_L|\text{post}] + \tau_{\text{Pav}}} \tag{A.1}$$

As discussed in the *Results* section, the probability of engaging in instrumental leisure in the post-reward state is $\pi([L, \tau_L]\ |\text{post}) = \exp\left[-\{\beta(\rho^\pi - K_L)\}\tau_L\right]$, which is an exponential distribution with mean

$$\mathbb{E}[\tau_L|\text{post}] = \frac{1}{\beta(\rho^\pi - K_L)} \tag{A.2}$$

Re-arranging terms of this equation,

$$\rho^\pi = \frac{1}{\beta\ \mathbb{E}[\tau_L|\text{post}]} + K_L \tag{A.3}$$

Equating Eqs. (A.1) and (A.3) and solving for the mean instrumental leisure duration $\mathbb{E}[\tau_L|\text{post}]$, we derive

$$\mathbb{E}[\tau_L|\text{post}] = \frac{P + \tau_{\text{Pav}}}{\beta(RI - K_L P) - 1} \tag{A.4}$$

which is the second line of Eq.(2). This is the mean instrumental leisure duration as long as $RI - K_L P > 1$, and $\mathbb{E}[\tau_L|\text{post}] \to \infty$ otherwise. When the former condition holds, we may substitute Eq. (A.4) into Eq. (A.1) and solve for ρ^π

B: MAKING THE BIBLIOGRAPHY FOR A COMPUTATIONAL PSYCHIATRY ARTICLE

Computational Psychiatry uses a variation on Chicago author-date bibliography style, using the bibliography style file mit-chicago.bst. You don't need to supply the bibliography style, since `\bibliographystyle{mit-chicago}` is built into the stjour.cls file.

BibTeX

You will need to use BibTeX to form your bibliography. For a good basic introduction to using BibTeX, see Quick Intro to BibTeX

The Chicago Manual of Style shows examples of the bibliography formatted in the Chicago 16th edition style. See the following site and click on the author-date tab: Chicago Manual of Style: author-date Citation and References

When you use BibTeX, the form of the bibliography will conform to the Chicago 16th edition style so you shouldn't need to edit your .bbl file to change any of the entries.

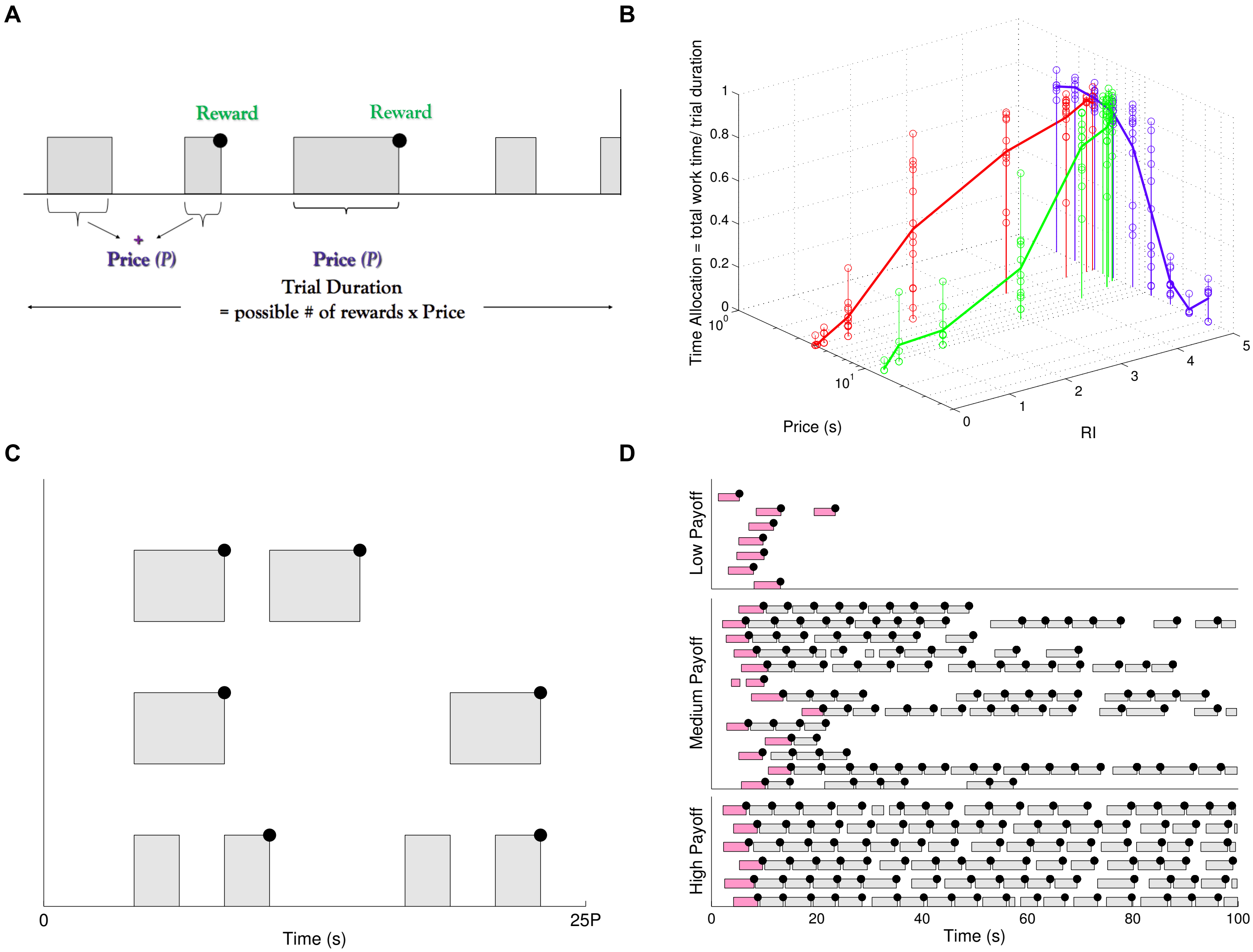

Figure B.1. Sample Appendix Caption. Here is a caption that might appear in an appendix. It is as wide as the full width of the page.