NETWORK NEUROSCIENCE

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PERSPECTIVE

Title of Article: Subtitle Here

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[1]Department, Institution, City, Country

[2]Another Department, Institution, City, Country

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

ABSTRACT

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AUTHOR SUMMARY

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

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

*Secondary affiliation
†Another bit of information

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Box 1. Comparative Analysis of Different Classes of Networks

Going beyond the examination of shared topological features across nervous systems, the generalized mathematical language of graph theory also offers tools for the comparison of the organization of brain networks to other classes of network studied by different scientific disciplines.

Many real-world systems operate as some sort of interaction or communication network, including, for example, social networks, gene regulatory networks, computer networks, and transportation networks. Similar to brain networks, many of these real-world networks display an efficient small-world organization, a pronounced community structure with densely connected modules, as well as the formation of hubs and rich clubs. Going beyond the comparison of networks within the class of nervous systems, the field of 'comparative network analysis' examines commonalities and differences across a range of network classes.

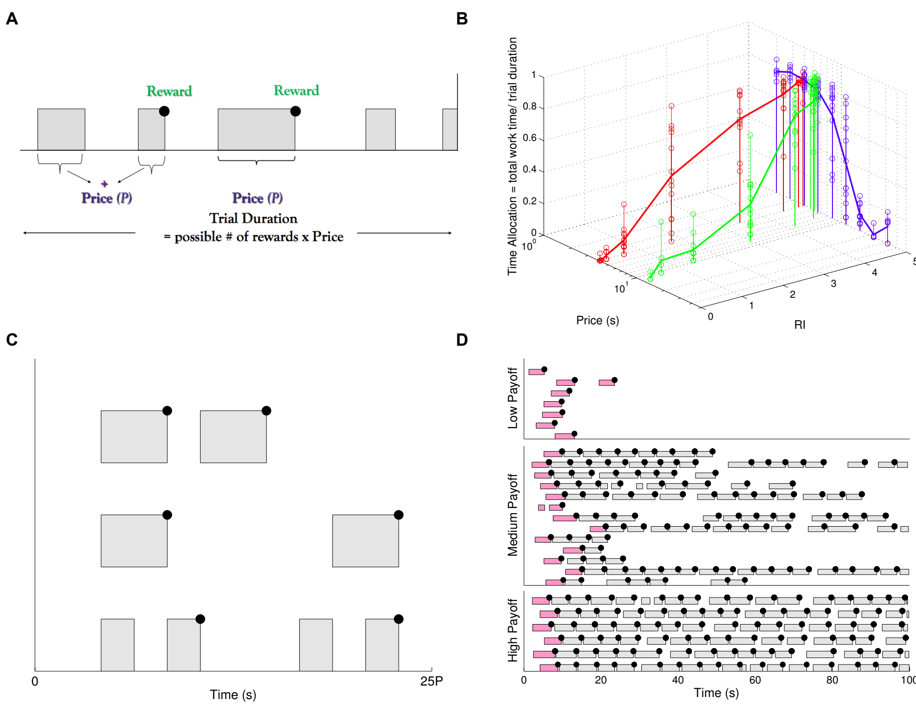

Figure 1. Here is the caption.

Box 2. Comparative Analysis of Different Classes of Networks

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Table 1. Here is the caption.

one	two	three
four	five	six

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.

Description list:

High payoffs: at high payoffs, subjects work almost continuously, engaging in little leisure inbetween work bouts;

Low payoffs: 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;

Continuous work: 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);

Duration: the duration of leisure bouts is variable.

SAMPLE CITATIONS

For general information on the correct form for citations using the APA 6 format, see the following sites: APA 6, In-text citations, The Basics and APA 6, In-text citations

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 NETNbibsamp.bib database:

citet: Bullmore and Sporns (2009), citep: (Gómez, Jensen, & Arenas, 2009), and citep*: (de Pasquale et al., 2012)

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 bibsamp.bib database: citet: Hutchison, Womelsdorf, Gati, Everling, and Menon (2013); Nooner et al. (2012), citep: (de Pasquale et al., 2012; Tagliazucchi, Von Wegner, Morzelewski, Brodbeck, & Laufs, 2012)

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

SAMPLE FIGURES

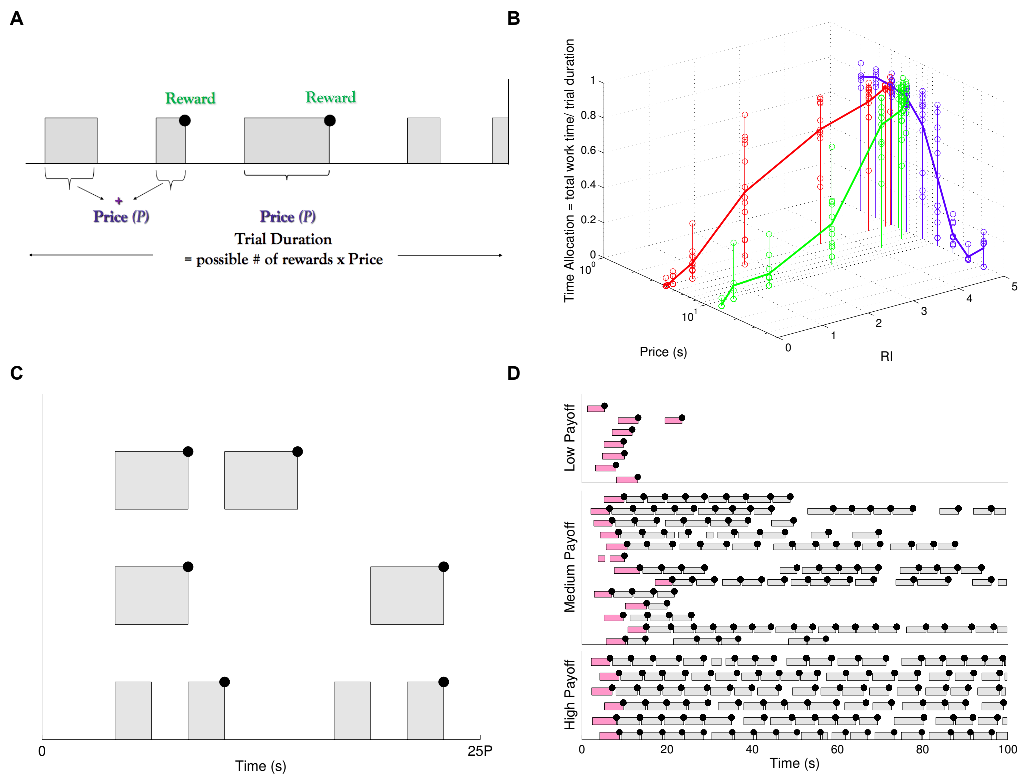
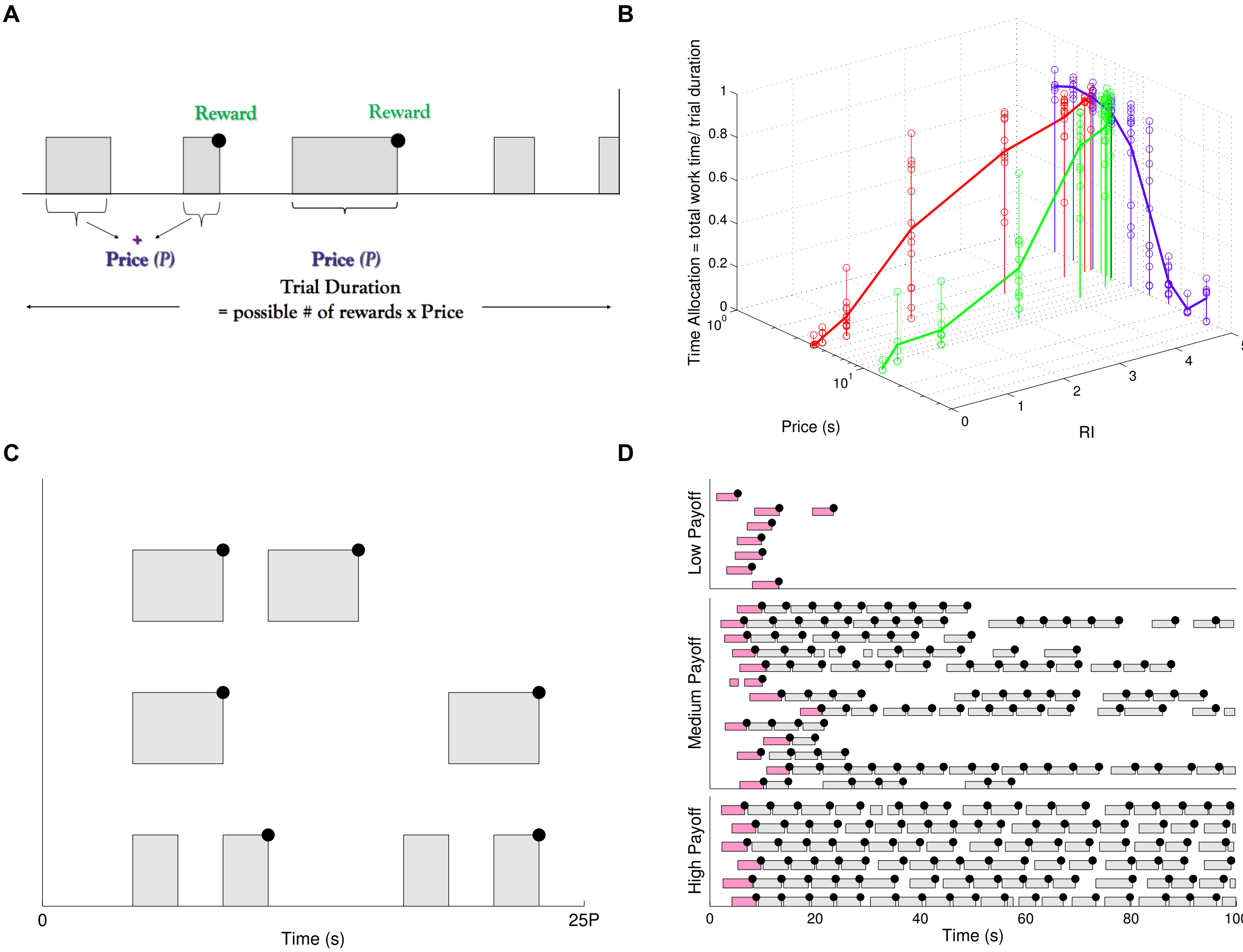


Figure 2. (Colour online) **Task and key features of the data.**
A) Cumulative handling time (CHT) task. Grey bars denote work (depressing a lever), white gaps show leisure. The subject must accumulate work up to a total period of time called the *price* (P) in order to obtain a single reward (black 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).



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SAMPLE TABLES

Table 2. 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 3. Sample table taken from [treu03]

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

Box 3. Tools for comparison of networks

Going beyond the examination of shared topological features across nervous systems, the generalized mathematical language of graph theory also offers tools for the comparison of the organization of brain networks to other classes of network studied by different scientific disciplines.

From $\mathcal{W}$, we can estimate the variability in the fluctuations of the functional connection between nodes i and j over time as:

$$s_{ij} = \sqrt{\frac{1}{T-L}\sum_{t=1}^{T-L+1}(W_{ij}(t) - m_{ij})} \quad (3)$$

where $m_{ij} = \frac{1}{T-L+1}\sum_{t=1}^{T-L+1} W_{ij}(t)$ is the mean dynamic functional connectivity over time.

Many real-world systems operate as some sort of interaction or communication network, including, for example, social networks, gene regulatory networks, computer networks, and transportation networks. Similar to brain networks, many of these real-world networks display an efficient small-world organization, a pronounced community structure with densely connected modules, as well as the formation of hubs and rich clubs. Going beyond the comparison of networks within the class of nervous systems, the field of 'comparative network analysis' examines commonalities and differences across a range of network classes.

Example of table continuing over pages:

Table 5: 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

Table continued on next page

Table 5, *continued from previous page.*

ApJ costs from 1991 to 2013

Year	**Subscription cost ($)**	**Publication charges ($/page)**
2008	320	65
2009	190	68
2010	280	70
2011	275	68
2012	150	56
2013	140	55

SUPPORTIVE INFORMATION

Here you enter further sources of information, if desired.

ACKNOWLEDGMENTS

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AUTHOR CONTRIBUTIONS

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

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When you use BibTeX, the form of the bibliography will be correct. You don't need to supply a bibliography style, since that is built into the stjour.cls file when the NETN option is used (`\documentclass[NETN]{stjour}`).

Sample citations

Here are some samples using `\citep{}`:
(Bullmore & Sporns, 2009; Fortunato & Barthélemy, 2007; Gómez et al., 2009; Liegeois et al., 2015; Power et al., 2014; Reichardt & Bornholdt, 2006; Rubinov & Sporns, 2011; Scheeringa, Petersson, Kleinschmidt, Jensen, & Bastiaansen, 2012; Smith et al., 2009; Sporns, 2011; Sporns & Betzel, 2016)

And more using `\citet{}`
Allen et al. (2012); Calhoun, Miller, Pearlson, and Adalı (2014); Damaraju et al. (2014); de Pasquale et al. (2012); Fisher (1915); Gonzalez-Castillo et al. (2014); Hutchison et al. (2013); Liu and Duyn (2013); Nooner et al. (2012); Tagliazucchi et al. (2012)

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