Project Presentations

Friday 22 July all day

Project Presentations

- Two parallel streams (one in each room)
- 15 minutes presentation time (strictly enforced)
- +5 minutes Q&A
- Must put all talks onto Slack by 9 am Friday
  - #final-prez-left-arm
  - #final-prez-right-arm
- Name each talk [session#-talk#-last name]
- Single laptop in each room for all presentations

Start time	Session	Talk #	Rough theme - left arm	Speaker		Rough theme - right arm	Speaker
10:00	1	1	Cognitive control (whatever that means)	Charlotte Tanis		Decision making	Maximilian Maier
	1	2	Cognitive control (whatever that means)	Michelle D[illegible]nzallaz		Decision making	Tehilla Mechera-Ostrovsky
	1	3	Cognitive control (whatever that means)	Huaiyu Liu		Decision making	Jake Embrey
	1	4	Cognitive control (whatever that means)	Jean-Paul[illegible]er		Decision making	Lars Reich
11:20	Coffee						
11:40	2	1	Memory of various sorts	Filiph Mu[illegible]		More decision making	Abida Bibi
	2	2	Memory of various sorts	Siobhan [illegible]		More decision making	Kamil Fulawka
	2	3	Memory of various[illegible]			More decision making	Yannik Paul
	2	4	Memory of various[illegible]			More decision making	Adriana Chávez
13:00	Lunch						
14:00	3	1	More memory (the one that works)	Carolin Streitberger		Information sampling	Ann-Katrin Hosch
	3	2	More memory (the one that works)	Jan Göttman		Information sampling	Marlene Hecht
	3	3	More memory (the one that works)	Suaad Said Al Hadhrami		Information sampling	Xiaotong Liu
	3	4	More memory (the one that works)	Shuangke Jiang			
15:20	Coffee						
15:40	4	1	Applied-ish	Michael Geers		[illegible]erception/Neuro	Kianté Fernandez
	4	2	Applied-ish	Raunak M. Pillai		Perception/Neuro	Philipp Deutsch
	4	3	Applied-ish			Perception/Neuro	Bugay Yildirim
	4	4	Applied-ish			Perception/Neuro	Rebecca West
17:00	Booze						

1-1-Tanis

3-2-Hecht

Remainder of week

- Tuesday – Thursday have parallel streams (one in each room)
- You choose a stream

Literate Programming (or “weaving” or “knitting”)

Stephan Lewandowsky

Day 9

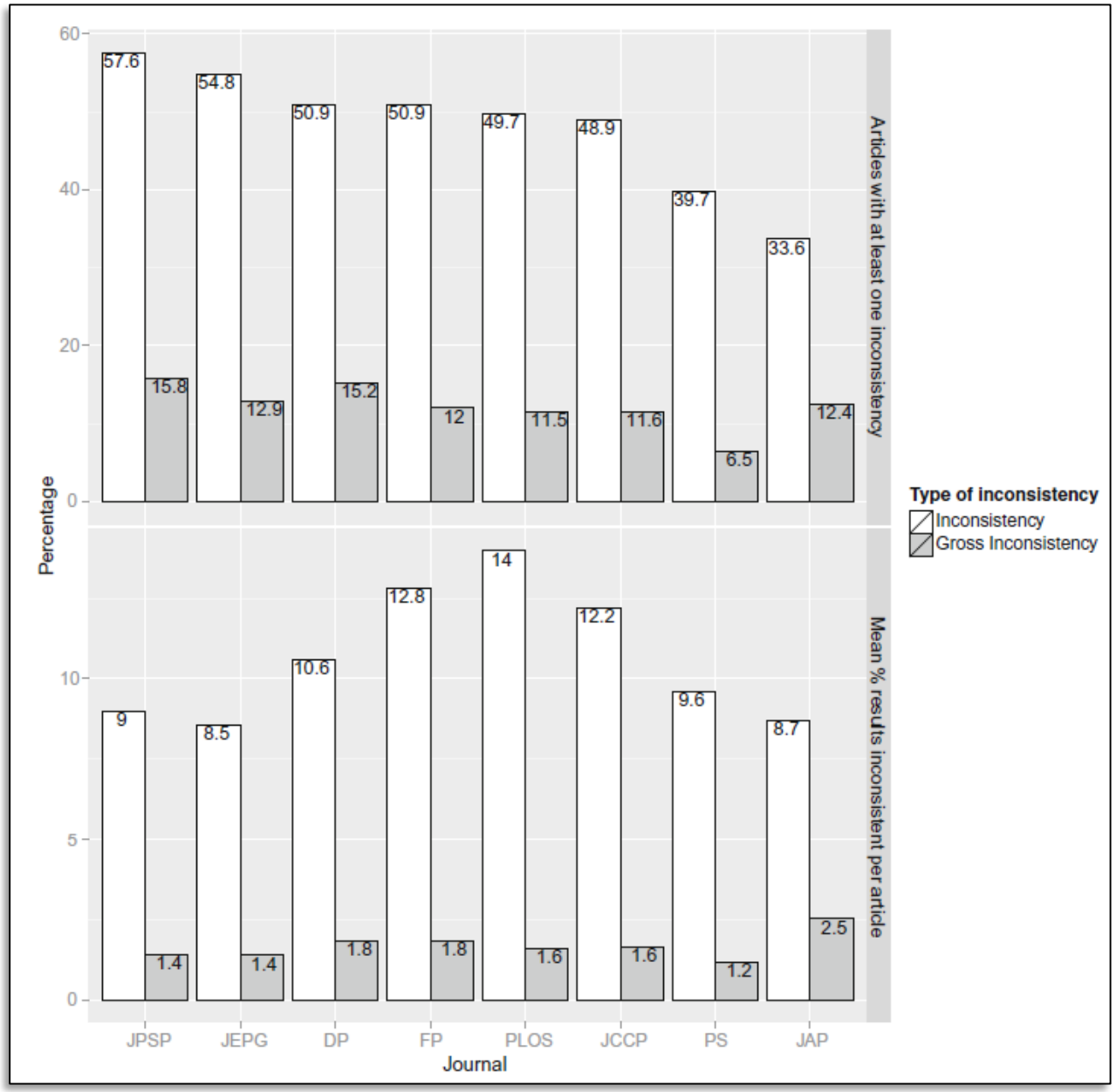
The problem

Behav Res (2016) 48:1205–1226
DOI 10.3758/s13428-015-0664-2

The prevalence of statistical reporting errors in psychology (1985–2013)

Michèle B. Nuijten[1] · Chris H. J. Hartgerink[1] · Marcel A. L. M. van Assen[1] · Sacha Epskamp[2] · Jelte M. Wicherts[1]

Oops…


Articles with at least one inconsistency
Mean % results inconsistent per article
Percentage
Journal
JPSP
JEPG
DP
FP
PLOS
JCCP
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57.6
15.8
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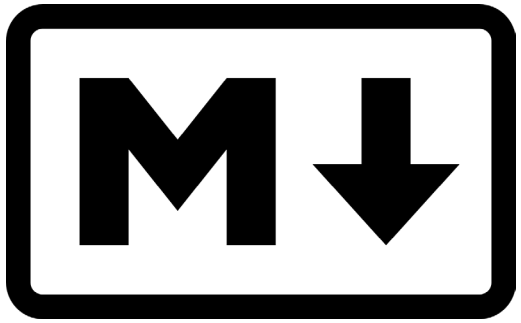
2.5
Type of inconsistency
Inconsistency
Gross Inconsistency

The Solution

- Do not transcribe statistical results
- Do not copy and paste results
- Integrate analysis and paper into single workflow and (ideally) a single document
  - “literate programming” (Knuth, 1984)
  - weaving

Literate Programming Tools

LaTeX



Markdown

One Document(s)

Introduction

...shehasnootherneurologicsymptomsnonumbnessortinglingshedeniesanyvisualchangespastmedicalhistorygallbladderremovalpastsurgicalhistorydiabetesrheumatoidarthritishypertensiongerdandhypothyroidismmedicationsadvairalbuterolallopurinolaspirinclobetasolfolicacidfosamaxlevoxyllisinoprilmetforminomeprazoleplaquenilprednisonetestosteroneverapamilallergiesnoknowndrugallergiessocialhistorythepatientismarriedwithchildshe**doesnotsmoke**shedoesnotdrinkshedoesnotuserecreationaldrugssheweighspoundsandisinchestallfamilyhistorynegativeforbrainaneurysmorotheraneurysmitwasalsonegativeforheartdiseasehighcholesterolandhypertensionandnegativefordiabetesreviewofsystemsthepatientispositiveforhypertensionswellingintehandsorfeetlegpainwhilewalkingasthmapneumoniashortnessofbreathgastritisulcersdiabetesthyroiddiseaseurinarytractinfectionsandthosesymptomsrelatedtothepresentillnessthedetailsofthereviewofsystemswerereviewedwiththepatientandareincludedintheneurosurgicalhealthhistoryquestionnairepainthepatienthasepisodicjointpainthatistreatedwithtylenolthepatientdoesnothaveanynutritionalconcernsshedoesnothaveanysafetyconcernsphysicalexamination...

Method

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Results

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```r
# price of call option
callprice.bs <- function (s, x, r, sigma, t.exp, t)
{
  d.pos <- log(s/x) + (r + 0.5 * sigma^2) * (t.exp - t)
  d.pos <- d.pos/(sigma * (t.exp - t)^0.5)
  d.neg <- d.pos - sigma * (t.exp - t)^0.5
  s * pnorm(d.pos) - x * exp( - r * (t.exp - t)) * pnorm(d.neg)
}
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Rendered into PDF

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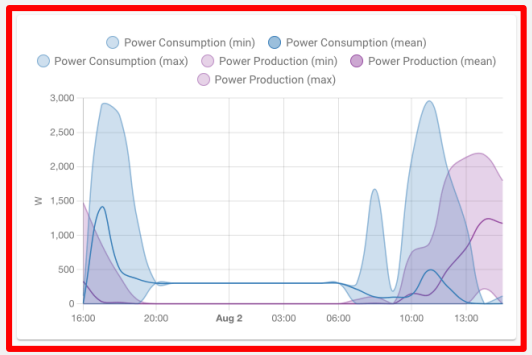

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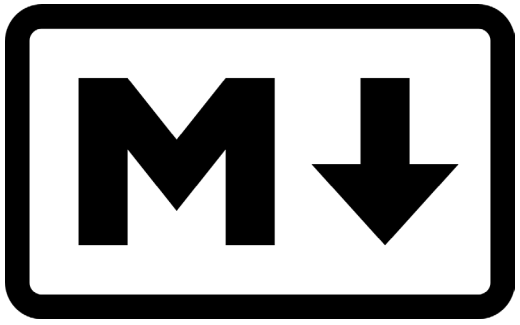
What Does This Look Like?

Rstudio

TeXstudio
(+ lots more)



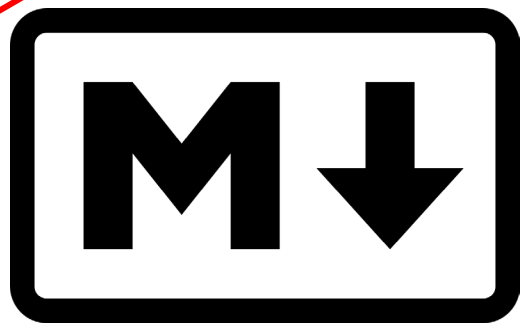
Markdown in
Rstudio

What Does This Look Like?

Rstudio

LaTeX

TeXstudio
(+ lots more)



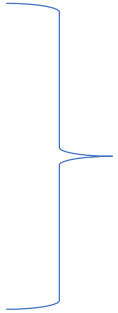
Markdown in
Rstudio

The Document **Is** a Program

- Some programming statements are for the typesetting language (Markdown or LaTeX)
- Some programming statements are for R
- Some programming statements interface between the two
- In between the statements there is some other stuff known as text

Four Examples

- Markdown APA style paper
- Markdown slide show
- Notebook
- “Spin” from R



“knitting”