[Commentary by John F Hall]

[Draft only. Last updated: 14 June 2018]

John MacInnes

An Introduction to Secondary Data Analysis with IBM SPSS Statistics (Sage, Dec. 2017)

Chapter 4: Getting Started with SPSS

4.1.5: Guide to video tutorials 7 and 8

Previous guides:

Aide-mémoire for easier navigation of companion website 4.1.1 Overview of video tutorials 1 to 6 4.1.2 Downloading the European Social Survey Practice File 4.1.3 Downloading the SPSS syntax 4.1.4 Checking the SPSS files

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The following notes assume you are familiar with copy/paste, highlighting and dragging with left mouse down and that you have access to a licenced copy of SPSS. They are based on communications with John MacInnes and Sage when I first accessed the companion website and are offered, not as criticism, but as supplementary comments intended to help guide users through Chapter 4.

The direct link to the video tutorials for Chapter 4 is: Chapter 4 video tutorials

Warning!

All the video tutorials are on the same webpage and can be accidentally triggered by stray mouse pointers. If you are not careful you can have two or more simultaneous commentaries playing and can't always tell which commentary relates to which video. It would be far better to split all these videos across separate pages.

All the syntax for all the analyses is in the same **Syntax Editor**, which can get very complicated and possibly confusing. The syntax needs to be split into separate ***.sps** files for each topic, preferably with file names corresponding to the relevant paragraph in the text:

The rationale for the order of video topics is not particularly evident: in fact, the chapters can be read in almost any order without losing pedagogic efficacy. Some topics could do with much more preliminary explanation of what is being done and why. However, at over 300 pages the book is already quite big and additional material could well make it unwieldy.

Video 7: Means procedure

Data set used:	ESS6_Practice.sav
	[modified for this guide to ESS_Practise_jfh.sav as per
	4.1.2 Downloading the European Social Survey Practice File]
Method:	GUI
Variable used:	[Irscale]
Procedure:	FREQUENCIES

[Extract from core questionnaire]

B19	CARD 8 I Using this where 0 r	s card, w	here wou	ıld you pl	lace your	rself on th	-	,				
Left										Right	(Don't Know)	
00	01	02	03	04	05	06	07	08	09	10	88	

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Left	2184	3.8	4.6	4.6
	1	1033	1.8	2.2	6.8
	2	2573	4.5	5.4	12.2
	3	4065	7.2	8.6	20.8
	4	4222	7.4	8.9	29.8
	5	17672	31.1	37.4	67.1
	6	4293	7.6	9.1	76.2
	7	4280	7.5	9.0	85.2
	8	3430	6.0	7.3	92.5
	9	1313	2.3	2.8	95.3
	Right	2241	3.9	4.7	100.0
	Total	47305	83.2	100.0	
Missing	Refusal	910	1.6		
_	Don't know	8569	15.1		
	No answer	51	0.1		
	Total	9529	16.8		
Total		56835	100.0		

Placement on left right scale

JM produces a summary table and bar-chart, but doesn't explain, except by inference, the reason for using a bar-chart (rather than a histogram) when he later uses it as **scale** rather than **ordinal**. Strictly speaking **[Irscale]** has no fixed interval between the points and is therefore **ordinal**.



The points are not contiguous so a barchart is used because it has spaces between the points.

4.14: Creating a barchart in SPSS (p87)

JM doesn't demonstrate this in detail, but suggests:

Analyze >> Descriptive Statistics >> Frequencies Analyze Direct Marketing Graphs Utilities Extensions Wind Reports ۶ 1111111 Descriptive Statistics Þ Erequencies. Tables ь Descriptives... Highlight Placement on left right scale to move it to the Variable(s) box: and click on -🝓 Frequencies × 🝓 Frequencies × Variable(s): Variable(s): Statistics.. Statistics. 🗞 Respondent's... 🖆 💑 Respondent's... Charts. Charts. Country [cntry] Country [cntry] TV watching, t.. Eormat. TV watching, t... Eormat. How intereste... How intereste... 4 + Style. Style ... Frust in politic... Frust in politic.. Bootstrap.. Bootstrap .. Placement on left right scale [Irscale] I Placement on.. Gays and les.. Gays and les... -0 Display frequency tables Display frequency tables Reset Cancel Help Reset Cancel Help OK Paste OK Paste

The dialog box displays variable labels, but navigation is much easier if you use variable names.

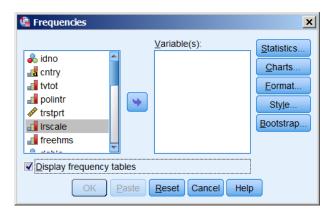
🕼 Frequencies 🛛 🗙	📽 Frequencies 🛛 🗙
Variable(s): Statistics Country [cntry] TV watching, t How interested Trust in politic Placement on left right scale [Irscale] O Display Variable Names	Variable(s): Statistics Charts Charts Eormat Style Bootstrap
O Display Variable Labels O Sort <u>Alphabetically</u> Cancel Help	O Display Variable Labels O Sort Alphabetically Cancel Help
Sort By File Order	Sort By File Order

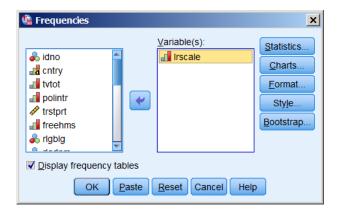
Right click on the label:

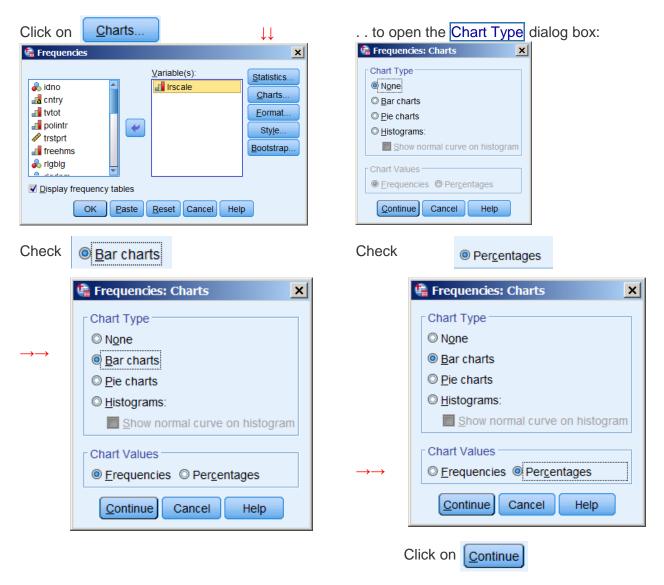
×	Frequencies	
		<u>V</u> ariab
3	💰 idno 🗧	
	a cntry	
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3	se trstprt	
	📑 Irscale	
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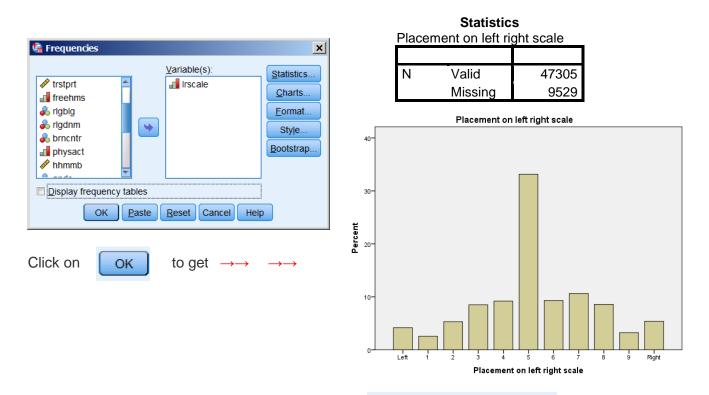
and check **Display Variable Names**

Click on 🕑 to move **Irscale** to the Variable(s) box:

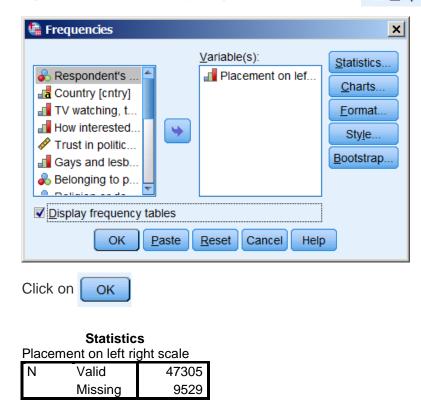








If you want to see the frequency table as well check Jisplay frequency tables



		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	2184	3.8	4.6	4.6
	1	1033	1.8	2.2	6.8
	2	2573	4.5	5.4	12.2
	3	4065	7.2	8.6	20.8
	4	4222	7.4	8.9	29.8
	5	17672	31.1	37.4	67.1
	6	4293	7.6	9.1	76.2
	7	4280	7.5	9.0	85.2
	8	3430	6.0	7.3	92.5
	9	1313	2.3	2.8	95.3
	Right	2241	3.9	4.7	100.0
	Total	47305	83.2	100.0	
Missing	Refusal	910	1.6		
	Don't know	8569	15.1		
	No answer	51	0.1		
	Total	9529	16.8		
Total		56835	100.0		

Placement on left right scale

The syntax generated by **Paste** from the GUI is:

FREQUENCIES VARIABLES=Irscale /BARCHART PERCENT /ORDER=ANALYSIS.

If all you want is a bar-chart, there's no need to use the GUI at all: it's much quicker and easier to use syntax:

FREQUENCIES =Irscale /FORMAT NOTABLE **/BARCHART PERCENT**

. . and even quicker if it's abbreviated to:

freq Irscale /for not /bar per.

. . which produces exactly the same chart, but with far fewer key depressions.

4.15: Using the MEANS procedure (p88)

Variables:[freehms] [Irscale] [agea]Procedure:MEANSMethod:GUITask:Compare mean [Irscale] and [agea] for each level of [freehms]

This analysis does not make sociological sense, making **[Irscale]** and **[age]** dependent variables and calculating means for each category of **[freehms]**. Variable **[age]** is unlikely to be caused by **[freehms]** as any causal link will be in the other direction.

Refers to barchart in video 6

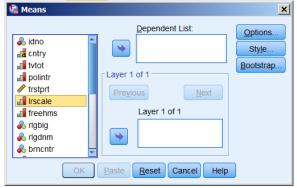
Analyze >> Compare Means >> Means

Analyze	Direct Marketing	Graphs	Utility	es Egtens	ions	Window	Help	р	
Rego	its iptive Statistics		:]	1	2 🛲		0	•	ABC
Table	a second s		,						Val
Comp	are Means			Means					
Gene	ral Linear Model		5.	One-Sam	ple T Te	est			hia

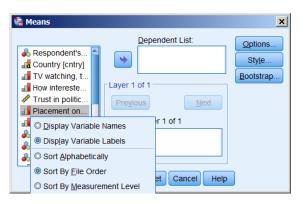
Difficult to navigate with labels, so right click: on Placement on left right scale [Irscale]

t	Means	×
		Dependent List: Options
	💑 Respondent's 🖆	
	Country [cntry]	Style
	IV watching, t	<u>B</u> ootstrap
	How intereste	Layer 1 of 1
	Nrust in politic	Previous
	Placement on left r	
	Gays and les	Layer 1 of 1
	💑 Belonging to	
	💑 Religion or de	\$
	💑 Born in countr 💂	
	ОК	Paste Reset Cancel Help

Highlight Irscale



Click on O Display Variable Names



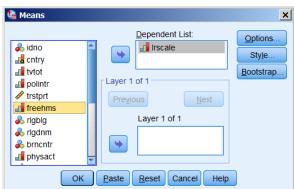
. . and click on 🕒

to move it to Dependent list

S rigdnm		Dependent List:
s brncntr physact	nhysact	

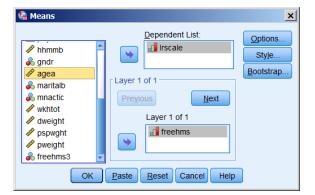
4

. . and click on 🕒 to move it to Layer 1 of 1



Highlight freehms

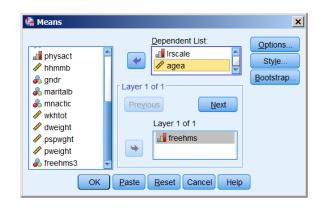
Highlight agea



JM then clicks on Paste



bidno a cntry tvtot polintr trsprt rigbig brncntr physact	Dependent List:	Options Style Bootstrap
hhmmb CK	Paste Reset Cancel Heip	



The syntax generated is appended to the syntax editor, but it's difficult to see on the screen as it's very small and right at the bottom.

🍓 *Syntax1 - IBM SPSS Statistics Syntax Editor	_ 🗆 🗙
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🜌 🜌 🕖 😹 🌫 🏹 🔴 💽 🐚 🔍 🛄 🧮	Active:
DATASET ACTIVATE DATASET ACTIVATE DataSet1. MEANS A DATASET ACTIVATE DataSet1. MEANS TABLES=Irscale agea BY free /CELLS=MEAN COUNT STDDEV.	hms 🗧
IBM SPSS Statistics Processor is ready Unicode:ON In 2 Col 0	NUM

Running the syntax produces the following table, which doesn't tell you very much, except that people who disagree strongly (that gays and lesbians should be free to live life as they wish) describe themselves as slightly more to the political right and are slightly older.

Report						
Gays and lesbians free to live	e life as they wish	Placement on left right scale	Age of respondent, calculated			
Agree strongly	Mean	4.53	44.47			
	Ν	14099	15475			
	Std. Deviation	2.342	17.691			
Agree	Mean	5.19	48.75			
	Ν	15487	17585			
	Std. Deviation	2.152	18.946			
Neither agree nor disagree	Mean	5.39	47.12			
	Ν	6447	7886			
	Std. Deviation	2.073	19.050			
Disagree	Mean	5.54	48.43			
	Ν	4607	5753			
	Std. Deviation	2.286	19.647			
Disagree strongly	Mean	5.52	49.26			
	Ν	4718	6432			
	Std. Deviation	2.346	19.381			
Total	Mean	5.08	47.29			
	Ν	45358	53131			
	Std. Deviation	2.270	18.833			

To be honest I can't see the point of this example. **[freehms]** is unlikely to affect **[agea]** (except by DUP¹-style apoplexy?) and is much more likely to be a component of the multi-dimensional construct underlying **[Irscale]**. It would be better to treat subjective measures as dependent variables and classification variables (country, sex, grouped age) as independent.

There is no need for **MEANS** at this stage. It loses sight of the **shape** of the distribution. It's much easier for beginners to compare **percentages** of **[freehms]** within age groups using **CROSSTABS** or charts. However, the practice data set only has actual age in years, so it would first need to be recoded into (not too many) age groups.

¹ Democratic Unionist Party in Northern Ireland.

Video 8: Recoding vars

Data set used:	ESS6_Practice.sav
Method:	GUI
Variable used:	[freehms]
Procedures:	RECODE
	CROSSTABS

4.16: Recoding variables and creating new variables (p 89)

It would also help to see the original question and show-card used together with some discussion of respondents' use of the 0-10 scale.

[Extract from core questionnaire]

CARD 11 Using this card, please say to what extent you agree or disagree with each of the following statements. READ OUT EACH STATEMENT AND CODE IN GRID²

		Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	(Don't know)
B 27	Gay men and lesbians should be free to live their own life as they wish ¹⁶ .	1	2	3	4	5	8

JM stresses the importance of collecting data at *disaggregated* level and explains that disaggregated data sometimes need to be grouped for tabulation, but doesn't mention the **golden rule** (at least among survey professionals) that people who collect age in groups, and not actual age last birthday, should be shot!

Variable [freehms] has 5 categories:

1 = "Agree strongly"2 = "Agree"3 = "Neither agree nor disagree"4 = "Disagree"5 = "Disagree strongly"

JM wishes to reduce them to 3:

Agree strongly + Agree Neither agree nor disagree Disagree + Disagree strongly

At 1' 14" in the video JM uses the following SPSS syntax "because it's quicker" [Note the abbreviation]

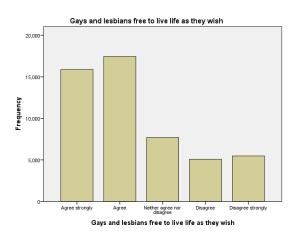
FREQUENCIES VARIABLES = freehms /BARCHART FREQ /ORDER = ANALYSIS.

. .to produce the following output:

² 16 Freedom of lifestyle is meant, 'free/entitled to live as gays and lesbians'.

-	Gays and lesi		te me de m		
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree strongly	15880	29.0	30.8	30.8
	Agree	17441	31.9	33.8	64.6
	Neither agree nor disagree	7691	14.1	14.9	79.5
	Disagree	5075	9.3	9.8	89.4
	Disagree strongly	5475	10.0	10.6	100.0
	Total	51562	94.3	100.0	
Missing	Refusal	151	0.3		
_	Don't know	2900	5.3		
	No answer	60	0.1		
	Total	3111	5.7		
Total		54673	100.0		

Gays and lesbians free to live life as they wish



He then uses the GUI to generate a new variable with recoded values, but admits that using the dialog boxes "can be a little bit clunky".

		fh1.sav [DataSet1] - IBM SPSS Statistics Data E <u>Transforr</u> <u>A</u> nalyze Direct <u>M</u> arketir <u>G</u> raphs <u>U</u> tilities			
	Nam	<u>Compute Variable</u> Programmability Transformation			
1	idno	Count Values within Cases			
2	cntry	Shift Values			
3	tvtot	Recode into Same Variables	day		
4	polintr	Recode into Different Variables	· · · · · · · · · · · · · · · · · · ·		
5	trstprt	Automatic Recode			
6	Irscale	E Create Dummy Variables			
7	freehms	Visual Binning	y wish		
8	rlgblg	🔀 Optimal Binning	nination		
9	rlgdnm	Prepare Data for Modeling			
10	brncntr	Rank Cases			
11	physact	🗎 Date and Time Wizard	er last 7 days		
12	hhmmb	Create Time Series	mber of household		
13	gndr	Replace Missing Values			
14	agea	Random Number Generators			
15	maritalb B Run Pending Transforms Ctrl+G				
16	mnactic	Main activity, last 7 days. All responden	ts. Post coded		
17	wkhtot	Total hours normally worked per week in	n main job overtime. 🚽		
Data View	Nariable \	/iew	•		
Recode into	Different \	/ariabl IBM SPSS Statistics Processor is ready	Unicode:ON		

Transform >> Recode into Different Variables

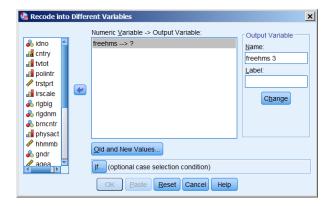
JM highlights freehms

. . and clicks on 🔁 to move it to the Output variable box:

Input ⊻ariable -> Output Variabl	e: Output Variable		Numeric V
lidno l	Name: Label: Change	idno idno idno idno idno idno idno idno	Qld and

🝓 Recode into Differ	ent Variables
	Numeric Variable -> Output Variable:
 ♣ idno ♣ idno ♣ idno ♣ idno ♣ inscale ♣ rigblg ♣ rigblg ♣ rigblg ♣ brncntr ➡ brncntr 	Treehms> ?
nhmmb 🗞 gndr	Qld and New Values
A agea	[f (optional case selection condition)
	OK Easte Reset Cancel Help

In the	Name	box he types	freehms 3	which in my version of SPSS 24 creates a warning message
--------	------	--------------	-----------	--





This is because he has typed a **space** in the new variable name **freehms_3**. If you look at the video in full-screen mode and freeze it, you can just make it out. He should have typed **freehms3**.



Warning

This error is copied into the syntax file on the companion site: if you try to run the syntax it causes an error.

The correct GUI sequence (in full clunky mode) should look like this:

Transform >> Recode into Different Variables

Opening dialog

🔩 Recode into Different Variables: Old and N	lew Values
Old Value	New Value
<u>V</u> alue:	Value:
	O System-missing
© <u>S</u> ystem-missing	Copy old value(s)
O System- or user-missing	
© Ra <u>n</u> ge:	Ol <u>d</u> > New:
through	Add
© Range, LOWEST through value:	Remove
Range, value through HIGHEST:	
	Output variables are strings Width: 8
O All other values	Convert numeric strings to numbers ('5'->5)
	Cancel Help

In the Old Value box, type 3

Old Value
<u>V</u> alue:
3

In the New Value box type 2

New Value
Value: 2

12

old Value ——	Different Variable				
Value:			_Γ New V	/alue	
value.			Value		
3				stem-missing	
System-missi	ing			py old value(s)	
System- or us					
Range:	Ser mooning			Old> New:	
rta <u>n</u> ge.					
brough			Add		
hrough					
			Chang	ge	
Range, LOW	EST through valu	e:	Re <u>m</u> ov	ve	
Range, value	e through HIGHES	T:			
				Output variables are strings Width: 8	
All other value	es			Convert numeric strings to numbers ('5'->5)	
		Continue	Cancel	Help	
ck on	Add	to dis	splay	Ol <u>d</u> > New:	
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ecode into D	Different Variable	s: Old and Ne	ew Value	5	×
d Value			New V	alue	
<u>V</u> alue:			© Va <u>l</u> u	ue:	
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System-missi	ng			2y old value(s)	
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Range:	Ŭ			Ol <u>d</u> > New:	
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hrough			Add		
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Range, LOW	EST through value	e:	Remov		
Range, value	through HIGHES	T:			
Range, value	e through HIGHES	T:		Output variables are strings Width: 8	
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Rang <u>e</u> , value All <u>o</u> ther value		T: <u>Continue</u>			
All other value		<u>continue</u> Ra <u>n</u> ge:	Cancel	Convert numeric strings to numbers ('5'->5)	
All other value	ode into Different	<u>continue</u> Ra <u>n</u> ge:	Cancel	Convert numeric strings to numbers ('5'->5)	
All other value W CliCk	es CON	<u>continue</u> Ra <u>n</u> ge:	Cancel	Convert numeric strings to numbers ('5'->5) Help	
All other value W Click	es CON	<u>continue</u> Ra <u>n</u> ge:	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values	
All other value W Click	es CON	<u>continue</u> Ra <u>n</u> ge:	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values New Value @ Value []	
All other value W Click	CON () ode into Different /alue	©ontinue) Ra <u>ng</u> e:	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values New Value Value: System-missing Copy old value(s)	
All other value W Click	es On ode into Different /alue lue: stem-missing stem- or user-miss	©ontinue) Ra <u>ng</u> e:	Cancel	Convert numeric strings to numbers ('5'->5) Help w Values New Value value: System-missing Copy old value(s) Old -> New:	
All other value W Click	es On ode into Different /alue lue: stem-missing stem- or user-miss	©ontinue) Ra <u>ng</u> e:	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values New Value Value: System-missing Copy old value(s)	
All other value W Click	es On ode into Different /alue lue: stem-missing stem- or user-miss	©ontinue) Ra <u>ng</u> e:	Cancel	Convert numeric strings to numbers ('5'->5) Help w Values New Value value: System-missing Copy old value(s) Old -> New:	
All other value W Click	es On ode into Different /alue stem-missing rstem- or user-miss ange:	©ontinue) Ra <u>ng</u> e:	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values New Value Value: [1 System-missing Copy old value(s) Old -> New: 3 -> 2	
All other value W Click	es On ode into Different /alue stem-missing rstem- or user-miss ange:	Continue	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values New Value Value: [1 System-missing Copy old value(s) Olg -> New: 3 -> 2 Add Change	
All other value W Click	es On () ode into Different /alue ilue: istem-missing istem- or <u>u</u> ser-miss ange: bugh	Continue	Cancel	W Values New Value ③ Value: [1] ③ System-missing ③ Copy old value(s) Olg -> New: 3 -> 2	
All other value W Click	es On () ode into Different /alue ilue: istem-missing istem- or <u>u</u> ser-miss ange: bugh	Continue	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values New Value Value: [1 System-missing Copy old value(s) Olg -> New: 3 -> 2 Add Change	
All other value W Click	CON O ode into Different /alue lue: stem-missing stem- or user-miss ange: ough ange, LOWEST three	Continue	Cancel	Convert numeric strings to numbers ('5'->5) Help W Values New Value Value: [1 System-missing Copy old value(s) Olg -> New: 3 -> 2 Add Change	8

Enter 1 in the upper box and 2 in the lower box

	⊚ Ra <u>n</u> ge:
\rightarrow	1
	<u>t</u> hrough
\rightarrow	2

←←

nter 1 in the New Value	box New Value	
	Value: 1	
	$\downarrow\downarrow$	and click or
	New Value Image: Value: 1 System-missing Copy old value(s) Old> New: 3> 2 Add Change Remove Output variables are strings Output variables are strings Output variables are strings to numbers ('5'->5)	<u>A</u> dd
Continue	Cancel Help	_
Recode into Different Variables: Old and I		<u><</u>
Old Value © Value:	New Value Value: System-missing	
© System-missing	© Copy old value(s)	
System- or <u>u</u> ser-missing Range: through Range, LOWEST through value:	Ol <u>d</u> > New: 3> 2 1 thru 2> 1 Change Remove	
Range, value through HIGHEST:	Output variables are strings Width:	
All <u>other values</u> <u>Continue</u>	Convert numeric strings to numbers ('5'->5)	

Repeat this process to recode values 4 and 5 to 3 until:

Old Value	New Value
© <u>V</u> alue:	Value:
	© System-missing
© <u>S</u> ystem-missing	© Copy old value(s)
System- or user-missing	Ol <u>d</u> > New:
	3> 2
4	1 thru 2> 1
through	4 thru 5> 3
Range, LOWEST through value:	Remove
Range, value through HIGHEST:	
	Output variables are strings Width: 8
O All other values	Convert numeric strings to numbers ('5'->5)

Variable **freehms** also has 3 user-missing values declared and JM uses the GUI to recode them to all to 9 noting the convention of using 8 and 9 or 88 and 99 as missing values.

	or <u>u</u> ser-missing enter	9 in the Value box
	$\downarrow\downarrow$	
Recode into Different Variables: O	ld and New Values	x
Cold Value	New Value	
© <u>V</u> alue:	Value: 9	
	○ System-missing	
○ System-missing	Copy old value(s)	
System- or <u>u</u> ser-missing		
© Ra <u>ng</u> e:	Ol <u>d</u> > New:	
	3> 2	
through	Add 1 thru 2> 1 ← ←	
	Change	
O Range, LOWEST through value:	Remove	
◎ Range, value through HIGHEST:		
	Output variables are strings	Width: 8
O All other values	Convert numeric strings to num	mbers ('5'->5)
then click on	ontinue Cancel Help	Click on Click on
Recode into Different Variables: Old and N	lew Values	🔹 Recode into Different Variables 🛛 🗙
Cold Value	New Value	
© <u>V</u> alue:	Value:	Numeric Variable -> Output Variable: Solution freehms> ?
	© System-missing	a cntry
© System-missing System- or user-missing	Copy old value(s)	Label:
© Range:	Old> New: 3> 2	↓ point
	MISSING> 9	🛃 irscale
through	Add 1 thru 2> 1 Change 4 thru 5> 3	💑 rigbig
Range, LOWEST through value:	2. nongo	👶 rigdnm 🗞 brncntr
	Remove	physact
© Range, value through HIGHEST:		A gndr Qld and New Values
	Output variables are strings Width: 8	A agea
O All other values	Convert numeric strings to numbers ('5'->5)	
Continue	Cancel Help	OK Paste Reset Cancel Help

SPSS is waiting for you to give a name to the new variable:

Write freehms3 in the Output Variable box	Output Variable
	<u>N</u> ame:
	freehms3

Recode in	nto	Differe	ent Variables	×
 idno a cntry tvtot polintr ✓ trstprt Irscale 	4	¥	Numeric <u>V</u> ariable -> Output Variable: freehms> ? <u>Name:</u> <u>Iabel:</u> <u>Label:</u>	
 rigbig rigdnm brncntr physact hhmmb 			Old and New Values	
♣ gndr Ø agea	T		If (optional case selection condition) OK Paste Reset Cancel Help	
Click on	С	: <u>h</u> ang	ge then OK	

The new variable [freehms3] is appended to the Data Editor:

20	pweight	Populat	None	None	Numeric	🖋 Scale	
21	freehms3		None	None	Numeric	\delta Nominal	
22							>>

The syntax created from the GUI is displayed in the output viewer:

```
RECODE freehms (3=2) (MISSING=9) (1 thru 2=1) (4 thru 5=3) INTO freehms3.
EXECUTE.
```

. but can be copied into your syntax file with Paste

EXECUTE.

[NB: The recode specifications generated are not in the order entered. Direct syntax is neater]

RECODE freehms (3=2) (MISSING = 9) (2=1) (4, 5=3) into freehms3.

In fact, there is no need to recode the missing values at all as they won't affect any subsequent analysis.

NB: SPSS has assigned the new variable [freehms3] a measurement level of Nominal, but it should be Ordinal.

1						$\downarrow\downarrow$
	21	freehms3	None	None	Numeric	🗞 Nominal

This can be corrected with syntax:

VARIABLE LEVEL freehms3 (Ordinal).

```
[var lev freehms3 (ord) .]
```

.. or manually in the **Data Editor**.

Click on 🛛 🕹 Nominal

🍓 *ESS6_Practice_jfh1.sav [DataSet1] - IBM SPSS Statistics Data Editor							
<u>F</u> ile <u>E</u> dit	<u>V</u> iew <u>D</u> ata <u>T</u> ra	nsform <u>A</u> nal	yze Direct <u>M</u> arl	ketin <u>(G</u> raphs	<u>U</u> tilities E <u>x</u> te	ensions <u>W</u> indow	<u>H</u> elp
😑 🗄 🖨 📖 🖛 🛥 🎬 🏪 💷 꾠 🛤 💹 🚟 🐴							
	Name	Label	Values	Missing	Туре	Measure	
20	pweight	Populat	None	None	Numeric	🖋 Scale	-
21	freehms3		None	None	Numeric	💑 Nomi 🔻	
22						🖋 Scale	
	Ordinal						
Data View	Variable View					\delta Nominal	
IBM SPSS Statistics Processor is ready Unicode:ON							

Click on Ordinal

🍓 *ESS6_Practice_jfh1.sav [DataSet1] - IBM SPSS Statistics Data Editor							
<u>File</u> dit	<u>V</u> iew <u>D</u> ata <u>T</u> ra	nsform <u>A</u> nal	yze Direct <u>M</u> arl	ketin <u>; G</u> raphs	Utilities Exte	ensions <u>W</u> indow	<u>H</u> elp
🔁 🖶 🖨 📖 🗠 🤉 🎬 🏪 📰 🌇 🛤 📰 🖾 🚍 🐴							
	Name	Label	Values	Missing	Туре	Measure	
20	pweight	Populat	None	None	Numeric	🖋 Scale	-
21	freehms3		None	None	Numeric	🗞 Nomi 👻	
22						🖋 Scale	-
	1						
Data View	Variable View					\delta Nominal	
	IBM SPSS Statistics Processor is ready Unicode:ON						

In the Measure column [freehms3] has now changed to Ordinal:

🍓 *ESS6_Practice_jfh1.sav [DataSet1] - IBM SPSS Statistics Data Editor							
Eile Edit View Data Transform Analyze Direct Marketini Graphs Utilities Extensions Window Help							
) 😑 🖶 🖨 📖 🗠 🛥 🞬 📥 💷 陋 🖬 💹 🔛 🐴							
	Name	Label	Values	Missing	Туре	Measure	
20	pweight	Populat	None	None	Numeric	🖋 Scale	-
21	freehms3		None	None	Numeric	📲 Ordinal 👻	
22							~
Data View	Variable View						
IBM SPSS Statistics Processor is ready Unicode:ON							

JM also uses the incredibly laborious and tortuous GUI route to write value labels for the new variable. Whilst the GUI can be a useful learning tool and avoids syntax errors, this is a classic example of how direct syntax is so much quicker and easier:

There is actually a much quicker way to achieve a (temporary) grouping of [freehms].

TEMPORARY . RECODE freehms (1=2) (5=4) . FREQUENCIES freehms .

. . which leaves value 3 alone and saves writing new labels.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	33321	60.9	64.6	64.6
	Neither agree nor disagree	7691	14.1	14.9	79.5
	Disagree	10550	19.3	20.5	100.0
	Total	51562	94.3	100.0	
Missing	Refusal	151	0.3		
-	Don't know	2900	5.3		
	No answer	60	0.1		
	Total	3111	5.7		
Total		54673	100.0		

Gays and lesbians free to live life as they wish

Note the SPSS colour coding as JM types and the use of **FREQ** as a check.

In the text, but not in the video, JM creates another target variable **[freehms2]** with only two categories (1 = Agree 2 = Disagree) but commits the cardinal sin of recoding other values to **SYSMIS**. (See Fig 4.16, p 91) Admittedly it's a convenient way for JM to get values other than 1, 2, 4 and 5 out of the way whilst experimenting with the data, but it is a very dangerous practice to demonstrate in front of learners as it risks the original values being permanently lost.

He then uses **CROSSTABS** to check the recoded values of the target variable against the values of the source variable, but in the resulting table the values of **[freehms2]** have 2 superfluous decimal places. Again, this is understandable for speed, but for learners it is sloppy practice. He should have used:

FORMATS freehms2 (f2.0).

4.17 Using Syntax in SPSS

JM rightly encourages the use of syntax rather than the GUI, but repeats the dangerous practice of recoding to **sysmis**:

RECODE³ freehms (1 2 =1)(4 5=2)(else = sysmis) into freehms3.

It is far better practice to recode to an existing (positive or negative) user-missing value, to a new usermissing value (to be declared) or to a value which is included in an existing range of user-missing values declared for other variables.

It's better practice, and much safer, to use something like:

RECODE	freehms (2 =1)(4 5=2) (else=copy) into freehms2.
FORMATS	freehms2 (f2.0).
MISSING VALUES	freehms2 (3 7 thru 9).
VARIABLE LABELS	freehms2 'Recoded freehms'.
VALUE LABELS	freehms2
	1 'Agree' 2 'Disagree' 3 'Neither agree nor disagree'
	7 'Refusal' 8 "Don't know" 9 'No answer' .
FREQUENCIES	freehms2.

freehms2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	33321	60.9	76.0	76.0
	Disagree	10550	19.3	24.0	100.0
	Total	43871	80.2	100.0	
Missing	Neither agree nor disagree	7691	14.1		
	Refusal	151	0.3		
	Don't know	2900	5.3		
	No answer	60	0.1		
	Total	10802	19.8		
Total		54673	100.0		

End of: MacInnes 4.1.5 Guide to videos 7 and 8 for Chapter 4

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³ Note that this over-writes the existing [freehms3] (which has three groups) and does not, as he possibly intends, create [freehms2] (which has only two).