



# Menguji Respon Ganda (Multi Response)

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**MULT RESPONSE** analysis allows the researcher to analyze research questions that can have multiple responses.

For example, a research question may ask respondents to *name* all the newspapers read within last week, or to *circle* all newspapers read within last week from a list of newspapers. One way to generate descriptive statistics for each of the newspapers selected is to do a simple FREQUENCIES analysis.

For example, if the researcher is interested in the number of respondents who chose newspaper A as a *percentage of the total number of newspapers read*, then the MULT RESPONSE procedure should be used.

There are two ways to perform a frequency run with multiple response data.

Whichever way the researcher chooses, the procedure will involve combining variables into groups.

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One way to organize multiple-response data is to create, for each possible response, a variable that can have one of two values, such as 1 for *yes* and 2 for *no*; this is the **multiple-dichotomy** method

Alternatively, on the basis of all responses collected from all respondents, the researcher can create variables to represent, for example, all the newspapers read. Each variable (newspaper) will have a value representing that newspaper, such a 1 for *Bangkok Post*, 2 for *The Nation*, and 3 for *Thai Rath*.

This is the **multiple-response** method.

Suppose that in a survey of political party preference, the following question was asked.

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*“Why do you prefer that political party?” (you can choose more than one reason)*

		1. Yes	2. No
1.	The party is honest.	_____	_____
2.	The party has integrity.	_____	_____
3.	The party is trustworthy.	_____	_____
4.	The party has always kept its promises.	_____	_____
5.	The party has strong leadership.	_____	_____

2.	The party has strong leadership.	_____	_____
3.	The party has always kept its promises.	_____	_____

In this example, the respondent is asked to endorse the reasons for preferring a specific political party. Each reason is, therefore, a separate variable, with two possible values: 1 for yes, and 2 for *no*. The five reasons are named **HONEST**, **INTEG**, **TRUST**, **PROMISE**, and **LEADER** in the data set below.



# Data Entry Format

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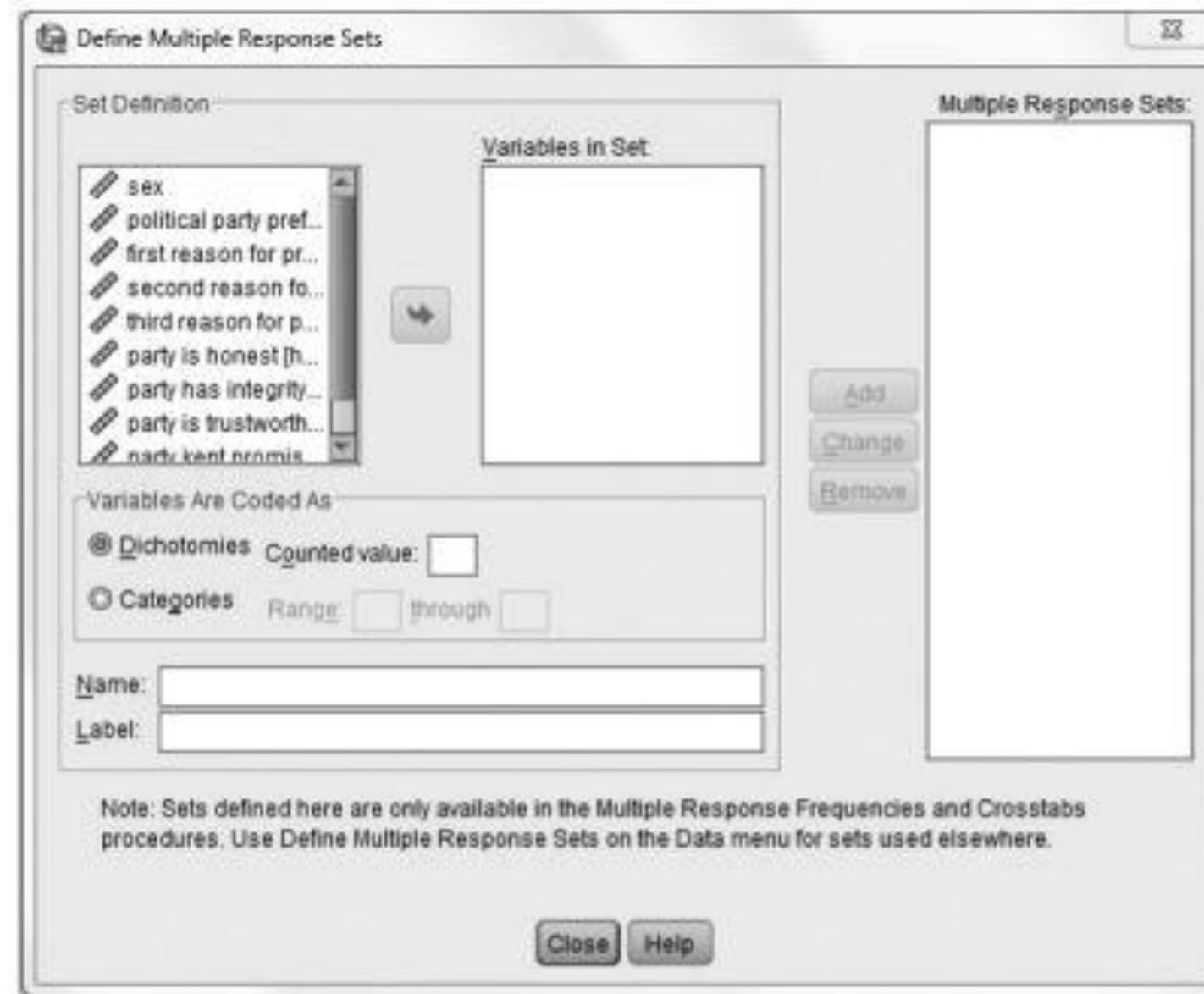
Variables	Column(s)	Code
Sex	1	1 = Male, 2 = Female
Party	2	1 = Labor, 2 = Liberal 3 = National, 4 = Democrat
REASON 1	3	1 = The party is honest. 2 = The party has integrity. 3 = The party is trustworthy. 4 = The party has always kept its promises. 5 = The party has strong leadership.
REASON 2	4	As above
REASON 3	5	As above
HONEST	6	1 = yes, 2 = no
INTEG	7	1 = yes, 2 = no
TRUST	8	1 = yes, 2 = no
PROMISE	9	1 = yes, 2 = no
LEADER	10	1 = yes, 2 = no

TEVDEK	10	1 = yes, 2 = no
LIKORISE	2	1 = yes, 2 = no

# Windows Method

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1. From the menu bar, click **Analyze**, then **Multiple Response**, and then **Define Variable Sets**. The following **Define Multiple Response Sets** window will open.



In the **Set Definition** field containing the study's variables, click (highlight) the variables (**HONEST, INTEG, TRUST, PROMISE, LEADER**) that will be grouped in the multiple response set. Click to transfer the selected variables to the **Variables in Set:** field.

Since only those variables (reasons) that have been coded 1 (for yes) will be grouped for analysis, check the **Dichotomies** button, and in the **Counted value:** cell type **1**. Next, in the **Name:** field, type in a name for this multiple response set (e.g., *reasons*), and in the **Label:** field, type in a label (e.g., *"reasons for preferring that party"*).

Define Multiple Response Sets

Set Definition

Variables in Set:

sex  
political party prefer...  
first reason for prefe...  
second reason for p...  
third reason for pref...

party is honest [hon...  
party has integrity [in...  
party is trustworthy [t...  
party kept promises ...  
party has strong lea...

Variables Are Coded As

☒ Dichotomies Counted value: 1  
☐ Categories Range: through

Name: reasons  
Label: reasons for preferring that party

Multiple Response Sets:

Add  
Change  
Remove

Note: Sets defined here are only available in the Multiple Response Frequencies and Crosstabs procedures. Use Define Multiple Response Sets on the Data menu for sets used elsewhere.

Close Help



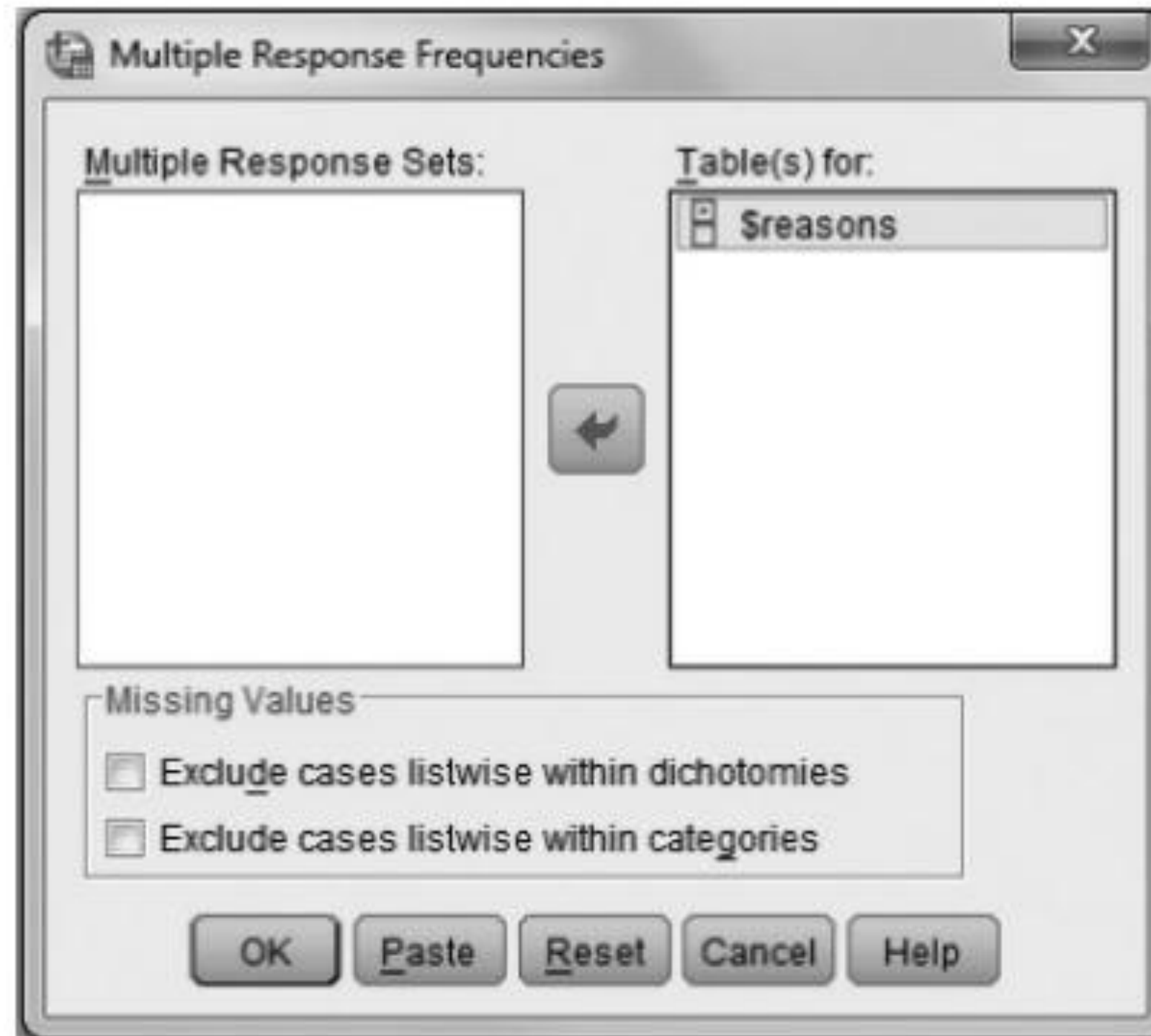
3. Click **Add** to transfer this response set to the **Multiple Response Sets:** field. The grouped response set is given the name *\$reasons*.

The screenshot shows the 'Define Multiple Response Sets' dialog box. On the left, under 'Set Definition', there is a list of variables: 'sex', 'political party pref...', 'first reason for pr...', 'second reason fo...', 'third reason for p...', 'party is honest [h...', 'party has integrity...', 'party is trustworth...', and 'party kept promis...'. A right-pointing arrow button is between this list and the 'Variables in Set' box. The 'Variables in Set' box is currently empty. Below the variable list, the 'Variables Are Coded As' section has two radio buttons: 'Dichotomies' (selected) and 'Categories'. The 'Dichotomies' option has a 'Counted value' field. The 'Categories' option has a 'Range' field with 'through' text. At the bottom left are 'Name:' and 'Label:' text boxes. On the right side of the dialog is a list box titled 'Multiple Response Sets:' containing the text '\$reasons'. Between the 'Variables in Set' box and the 'Multiple Response Sets:' list are three buttons: 'Add', 'Change', and 'Remove'. At the very bottom are 'Close' and 'Help' buttons. A note at the bottom of the dialog states: 'Note: Sets defined here are only available in the Multiple Response Frequencies and Crosstabs procedures. Use Define Multiple Response Sets on the Data menu for sets used elsewhere.'

4. From the menu bar, click **Analyze**, then **Multiple Response**, and then **Frequencies**. The following **Multiple Response Frequencies** window will open.



5. Transfer the grouped response set *\$reasons* (reasons for preferring that party) in the **Multiple Response Sets:** field to the **Table(s) for:** field by clicking (highlight) the response set, and then clicking ➡.



In Table 3.1, the **N** column (beneath the **Responses** heading) presents the number of respondents who answered *yes* to each of the five reasons.

Thus, of the 20 respondents included in the analysis, 13 endorsed “*party is honest*” as a reason for preferring that political party, 8 endorsed “*party has integrity*” as a reason, 10 endorsed “*party is trustworthy*” as a reason, 12 endorsed “*party kept promises*” as a reason, and 13 endorsed “*party has strong leader*” as a reason. Thus, a total of 56 *yes* responses were generated from the sample of 20 respondents.



## Multiple Response (Multiple-Dichotomy) Output

Multiple Response						
Case Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$reasons <sup>a</sup>	20	100.0%	0	.0%	20	100.0%

<sup>a</sup> Dichotomy group tabulated at value 1.

<sup>a</sup> Dichotomy group tabulated at value 1.

\$reasons <sup>a</sup>	20	100.0%	0	.0%	20	100.0%
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## Reasons Frequencies

		Responses		Percent of Cases
		N	Percent	
Reasons for Preferring That Party <sup>a</sup>	party is honest	13	23.2%	65.0%
	party has integrity	8	14.3%	40.0%
	party is trustworthy	10	17.9%	50.0%
	party kept promises	12	21.4%	60.0%
	party has strong leader	13	23.2%	65.0%
Total		56	100.0%	280.0%

<sup>a</sup> Dichotomy group tabulated at value 1.

<sup>a</sup> Dichotomy group tabulated at value 1.

Total

28

100.0%

280.0%

The **Percent** column presents the number of respondents who answered *yes* to each of the five reasons (in the **N** column) as a percentage of the total number of *yes* responses generated. For example, the 13 respondents who endorsed “*party is honest*” as a reason for preferring that political party represent 23.2% of the total number of *yes* responses (56) generated.

The **Percent of Cases** column presents the number of respondents who answered *yes* to each of the five reasons (in the **N** column) as a percentage of the total valid sample. For example, the 13 respondents who endorsed “*party is honest*” as a reason represent 65% of the total valid sample ( $N = 20$  cases).

Using the same example as above, the following question was asked. *Why do you prefer that political party?* With the multiple-response method, the grouping of the multiple responses is different from the multiple-dichotomy method. A predetermined list of reasons will be used by the researcher in the multiple-response method to match the reasons chosen by the respondents. For example, a researcher may have the following list of reasons, each of which has been assigned a numerical value:

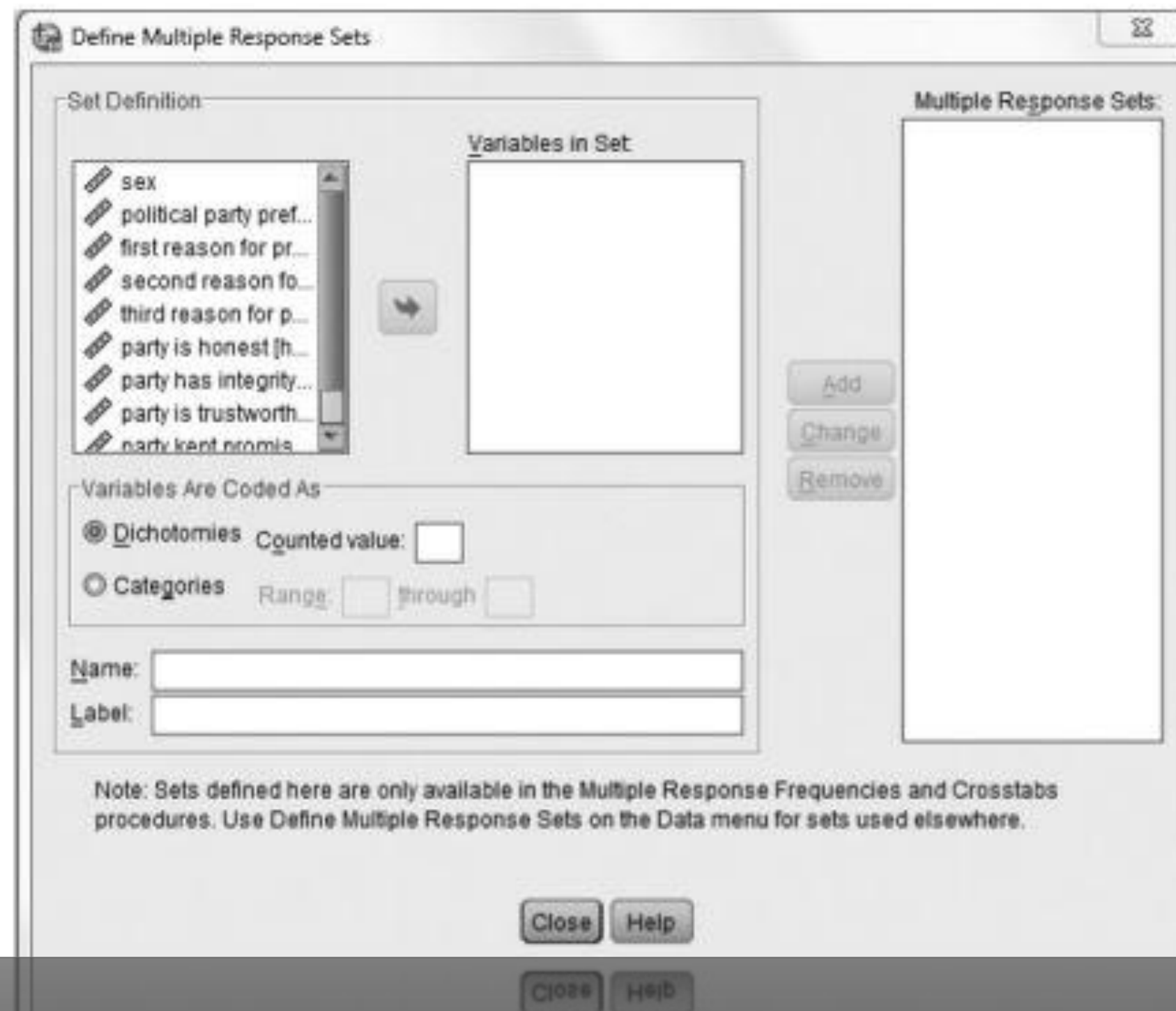
- 1 = The party is honest.
- 2 = The party has integrity.
- 3 = The party is trustworthy.
- 4 = The party has always kept its promises.
- 5 = The party has strong leadership.



# Windows Method

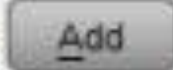
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1. From the menu bar, click **Analyze**, then **Multiple Response**, and then **Define Variable Sets**. The following **Define Multiple Response Sets** window will open.



In the **Set Definition** field containing the study variables, click (highlight) the variables (**REASON1**, **REASON2**, **REASON3**) that will be grouped in the multiple response set.

Click to transfer the selected variables to the **Variables in Set:** field. Since these three variables (reasons) have been coded from a predetermined list of five reasons (see Section 3.4), check the **Categories** field, and in the **Range** fields type **1** through **5**. Next, in the **Name:** field, type in a name for this multiple response set (e.g., *reasons*), and in the **Label:** field, type in a label (e.g., *“reasons for preferring that party”*)

Click  to transfer this response set to the **Multiple Response Sets:** field. The grouped response set is given the name *\$reasons*.



The dialog box is titled "Define Multiple Response Sets". It contains the following sections:

- Set Definition:**
  - Variables in Set:** A list box on the left containing variables: sex, political party pref..., first reason for pr..., second reason fo..., third reason for p..., party is honest (h..., party has integrity..., party is trustworth..., and party kent normis. A right-pointing arrow button is between this list and the "Variables in Set" box.
  - Variables in Set:** An empty list box on the right.
  - Variables Are Coded As:**
    - ☒ **Dichotomies** Counted value:
    - ☐ **Categories** Range:  through
  - Name:**
  - Label:**
- Multiple Response Sets:** A list box on the right containing the name "\$reasons".
- Buttons:** "Add", "Change", and "Remove" buttons are located between the "Variables in Set" and "Multiple Response Sets" list boxes.
- Footer:** "Close" and "Help" buttons.

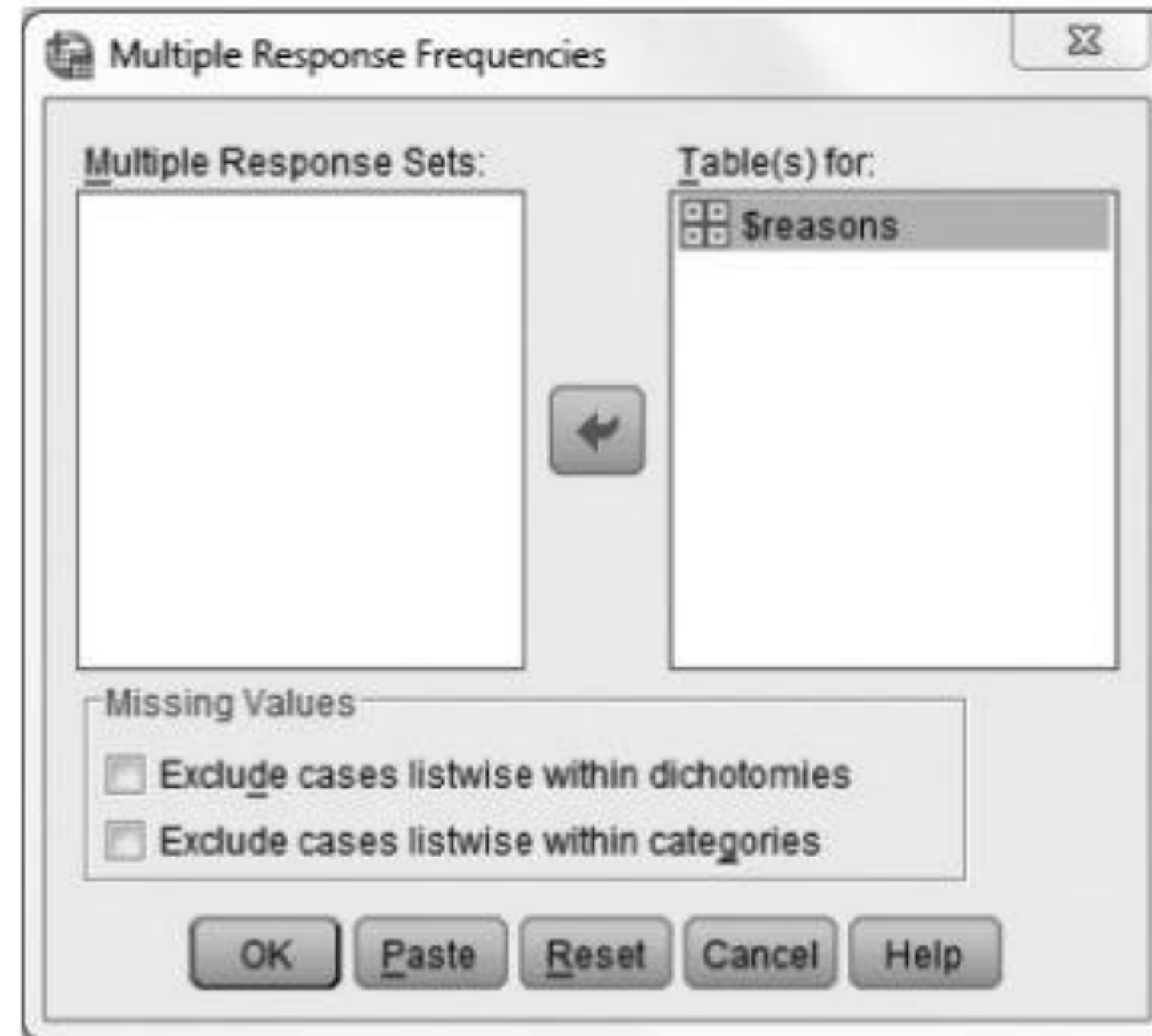
Note: Sets defined here are only available in the Multiple Response Frequencies and Crosstabs procedures. Use Define Multiple Response Sets on the Data menu for sets used elsewhere.

3. From the menu bar, click **Analyze**, then **Multiple Response**, and then **Frequencies**. The following **Multiple Response Frequencies** window will open.





4. Transfer the grouped response set *\$reasons* (reasons for preferring that party) in the **Multiple Response Sets:** field to the **Table(s) for:** field by clicking the response set, and then clicking ➡.



5. Click to run a multiple response frequencies analysis for the variables (REASON1, REASON2, REASON3) in the grouped response set

## Multiple Response (Multiple-Response) Output

### Multiple Response

#### Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$reasons <sup>a</sup>	20	100.0%	0	.0%	20	100.0%

<sup>a</sup> Group.

<sup>a</sup> Group.

\$reasons <sup>a</sup>	20	100.0%	0	.0%	20	100.0%
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## Reasons Frequencies

		Responses		Percent of Cases
		N	Percent	
Reasons for Preferring That Party <sup>a</sup>	party is honest	11	18.3%	55.0%
	party has integrity	12	20.0%	60.0%
	party is trustworthy	12	20.0%	60.0%
	party kept promises	11	18.3%	55.0%
	party has strong leadership	14	23.3%	70.0%
Total		60	100.0%	300.0%

<sup>a</sup> Group.

<sup>a</sup> Group.

Total

60

100.0%

The **Percent** column presents the number of respondents who chose each of the five reasons (in the **N** column) as a percentage of the total number of responses generated. For example, the 11 respondents who chose “*party is honest*” as a reason represent 18.3% of the total number of responses (60) generated.

The **Percent of Cases** column presents the number of respondents who selected each of the five reasons (in the **N** column) as a percentage of the total valid sample. For example, the 11 respondents who chose “*party is honest*” as a reason represent 55% of the total valid sample ( $N = 20$  cases).





# Thank You!

Any Questions?