**Chris,**

You said that I need to ensure that my category codes are sequential integers up to the number of categories and that my missing value code matches that expected by Realcom-Impute.

This is the frequency of the dependent variable. As shown below, it has sequential integers.

c\_race | Freq. Percent Cum.

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1 | 89,344 10.35 10.35

2 | 462,759 53.60 63.95

3 | 23,287 2.70 66.65

4 | 1,536 0.18 66.83

5 | 11,581 1.34 68.17

. | 274,816 31.83 100.00

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Total | 863,323 100.00

Let me add what I have done at STATA step:

**Using STATA, I ran this:**

xtmixed c\_race im\_mc\_p\_black im\_mc\_p\_white im\_mc\_college || fips\_code:

gen cons=1

sort fips\_code

realcomImpute c\_race im\_mc\_p\_black im\_mc\_p\_white im\_mc\_college using cmInputs.dat, replace numresponses(1) level2id(fips\_code) cons(cons)

Is there anything wrong above?

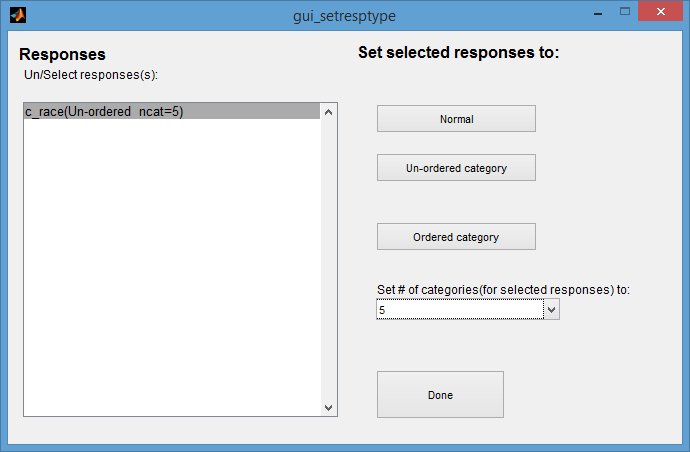
**Using RealCome:**

1. **Click “open data file”**

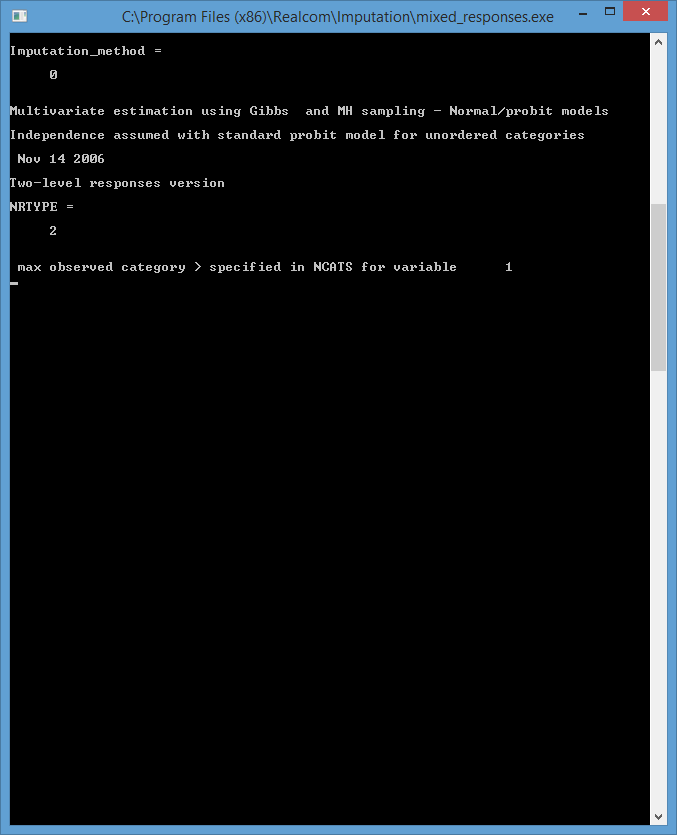


1. **Click “specify type of responses” and set up as shown below:**

The dependent variable is unordered categorical variable. Thus, I clicked “un-ordered category” & changed “set # of categories” to 5**. See the red-circled parts.**

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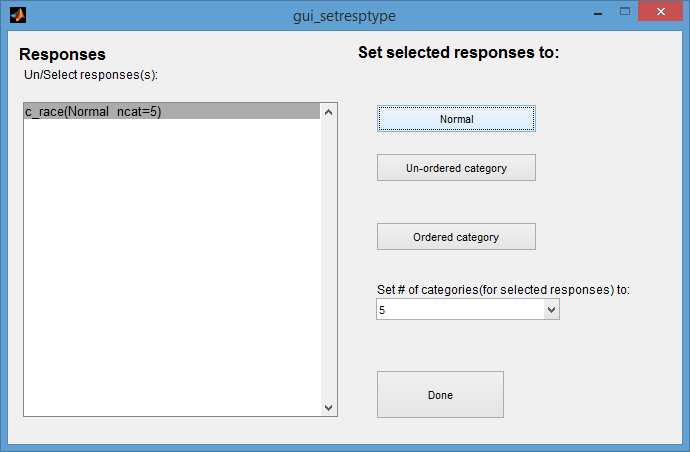
**Then, I got an error, as shown below:**

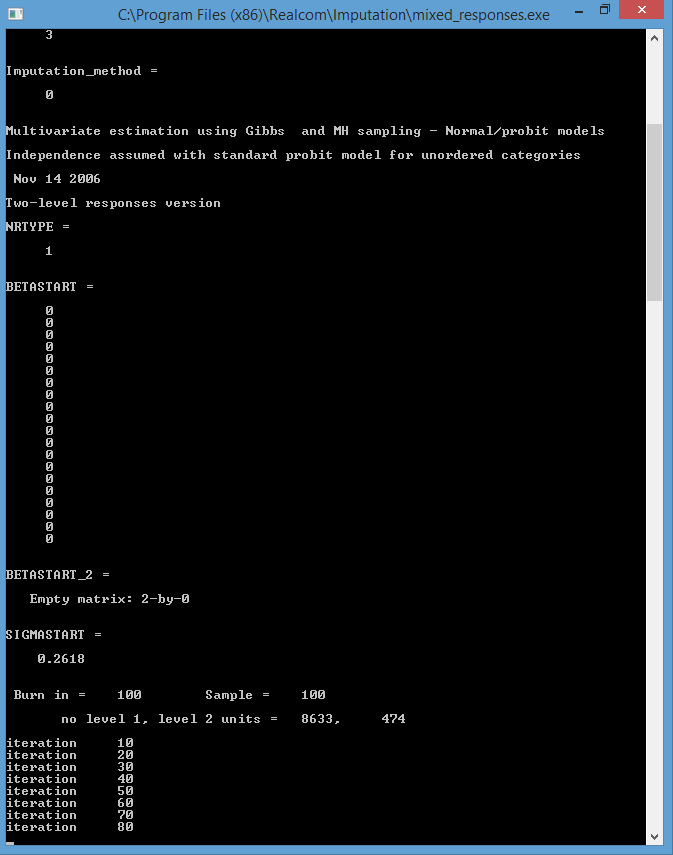


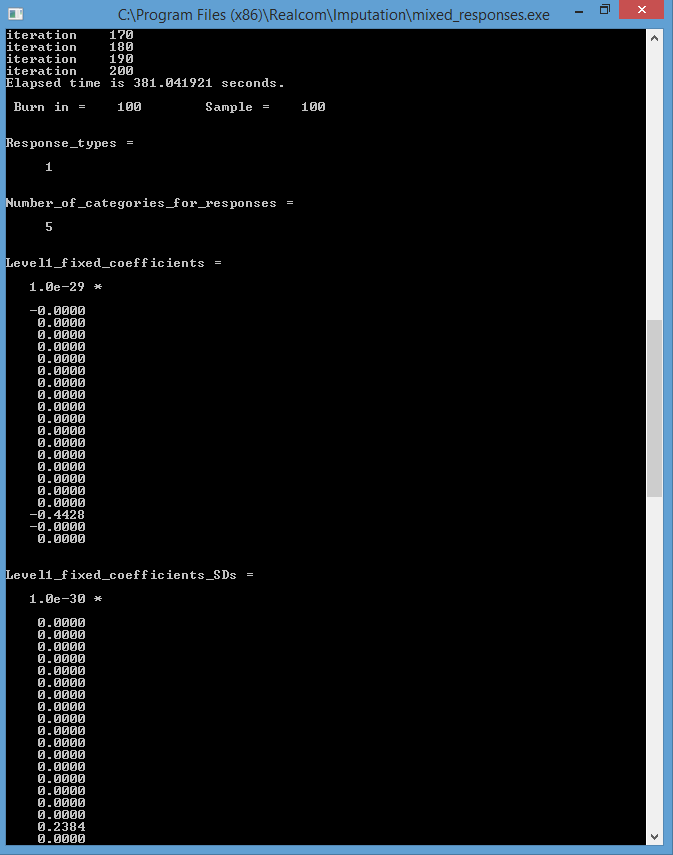
As you said, max observed category > specified in NCATS for variable 1", which will prevent it from running any further.

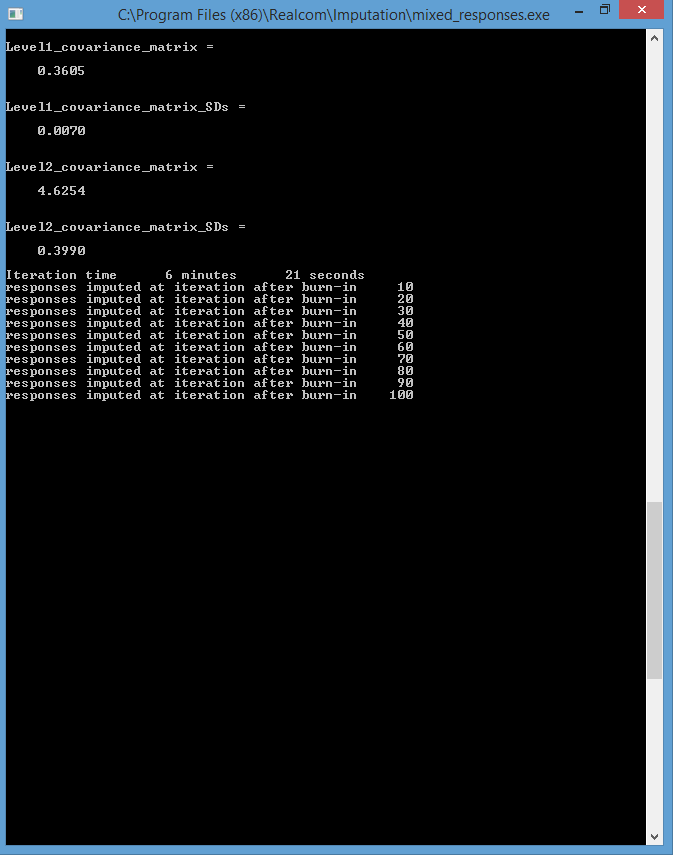
**However, when I set up like the screen shot below, it worked.**

I clicked “Normal” & changed “set # of categories” to 5**. See the red-circled parts.**









**However, its imputed data for the categorical variable, which ranges from 1-5, have negative values.**

This is the original variable with missing

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

c\_race | 5,851 1.948727 .6273834 1 5

c\_race1 | 8,633 1.880312 .8192517 -6.2732 7.0772

c\_race2 | 8,633 1.888451 .8079148 -5.0789 6.4309

c\_race3 | 8,633 1.892885 .7927905 -5.9833 6.2303

These imputed variables have negative values.

c\_race4 | 8,633 1.887415 .8138647 -6.5342 6.0595

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c\_race5 | 8,633 1.896017 .8046088 -6.0903 6.0418

c\_race6 | 8,633 1.880791 .8273373 -5.8956 5.6657

c\_race7 | 8,633 1.886135 .8198552 -6.5697 5.2372

c\_race8 | 8,633 1.881411 .8277196 -6.5855 5.7724

c\_race9 | 8,633 1.876426 .8565076 -5.6032 7.1435

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c\_race10 | 8,633 1.869398 .853488 -6.3677 6.4568

What should I do to impute a categorical variable?