# Re: large negative parameter correlations in regression

***Source:*** http://sci.tech−archive.net/Archive/sci.stat.math/2006−09/msg01087.html

* *From*: "Anon." <bob.ohara@xxxxxxxxxxxxxxxxx>
* *Date*: Wed, 27 Sep 2006 20:12:23 +0300

Reef Fish wrote:

> Anon. wrote:
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> > Reef Fish wrote:
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> > > > Reef Fish wrote:
> > > >
> > > > > <snip>
> > > > > this: "If you mean−centred your variables, then the correlation will go away." Again, falsifiable.
> > > >
> > > > It's not only falsifiable, it is FALSE.
> > >
> > > OK, prove it.
> > >
> > > > Then you would NOT have an intercept, you IDIOT!
> > >
> > > The keyword is
> > >
> > > "if you mean−centered your variables" ALL the variables.
> >
> > I had meant covariates, but it still doesn't matter. You will still have an intercept in the model.

> How would you ESTIMATE a parameter that is nonexistent?

Huh? It does exist. Just because my model is

y − ybar = a + b ( x − xbar)

doesn't mean that a magically disappears.

> > OK, the point estimate from the centred
> > data will be zero,

> Can't blame it on Finnish, because you are an ignorant BRIT!
> "nonexistent" and "zero" are not synonymous.

Yes, you're right. They're not. That's why the intercept still exists even though it has a point estimate of zero.

> If there is no intercept parameter to estimate, and you
> decided to put a zero there doesn't mean that it has been
> estimated.

Indeed...

> > but it will have a standard error about it, because
> > it's still being estimated.

.... that is what I wrote.

So, it seems that we now agree that there is still an intercept to be estimated, even if all of the variables are mean centred.

Now, what is the correlation between the slope and the intercept in this case? I'm still maintaining it's zero. I'm waiting for your proof that I'm wrong, and it's non−zero.

Bob

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