

## Re: Reviews of Unto Others

**Source:** <http://sci.tech-archive.net/Archive/sci.bio.evolution/2004-07/0423.html>

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**From:** Perplexed in Peoria ([jimmenegay\\_at\\_sbcglobal.net](mailto:jimmenegay_at_sbcglobal.net))

**Date:** 07/24/04

Date: Sat, 24 Jul 2004 21:47:57 +0000 (UTC)

"Tim Tyler" <[tim@tt1lock.org](mailto:tim@tt1lock.org)> wrote in message news:cds2f5\$1r9i\$1@darwin.ediacara.org...  
> *Jim Menegay* <[jimmenegay@sbcglobal.net](mailto:jimmenegay@sbcglobal.net)> wrote or quoted:  
>> *Tim Tyler* <[tim@tt1lock.org](mailto:tim@tt1lock.org)> wrote in message news:<cc47de\$glh\$1@darwin.ediacara.org>...  
>>> *Perplexed in Peoria* <[jimmenegay@sbcglobal.net](mailto:jimmenegay@sbcglobal.net)> wrote or quoted:  
>  
>>>> *The correct lesson to take from the "new group selection"*  
>>>> *is that groups have a role ONLY IF they are ephemeral and if the*  
>>>> *organisms in those groups do most of their breeding outside the*  
>>>> *group.*  
>  
>>> *I don't think I've even heard of some sort of "new group selection"*  
>>> *that depends for its existence on outbreeding. What is all that*  
>>> *about?*  
>>  
>> *Basically, I was referring to forms of "group selection" based on the*  
>> *Price equations and on D. S. Wilson's "trait group selection". These*  
>> *forms of "group selection" do not seem to conform to Ridley's*  
>> *definition, though they do involve selection acting on (or through)*  
>> *groups.*  
>  
> *I still can't see how your original capitilised section applies – i.e.*  
> *how outbreeding and groups being ephemeral help with Wilson's flavour*  
> *of group selection.*

Well, outbreeding and ephemeral groups are part of the definition of trait group selection. As to how they help, read Wilson. Also, my last few paragraphs below.

>> *From the rest of your post this looks like a reference to Hamilton's*  
> *references 3–5 on p. 195 of v.1 of "Narrow Roads" relating to xenophobia.*  
>  
>> *See for example the discussion in Narrow Roads VI starting on p188.*  
>  
> *Alas, only a teaser – and I can't access the references – and so am unable*  
> *to evaluate the idea.*

Alas, me neither.

- > > *Or, check the first paragraph of this:*
- > > <http://www2.unil.ch/izea/people/PDF/nperrin9.pdf>
- >
- > *The abstract reads like double-talk to me – but the first paragraph*
- > *of the body of the paper is coherent and seems to make sense.*

That is the paragraph I meant.

- > > *However, I may be missing some subtlety here. I have still not read the*
- > > *papers of Queller, Wilson et al, and Taylor that are referenced by*
- > > *Hamilton and Perrin. So, if someone has read those papers, and can*
- > > *correct my misunderstanding, I would appreciate it.*
- >
- > *Group selection – AKA differential reproductive success of groups*
- > *of organisms – depends on variation between groups. I'm hard pressed*
- > *to think how outbreeding is going to help it. Outbreeding tends to*
- > *destroy variation between groups, and acts to remove or reduce the*
- > *heritable differences which selection could act to select between.*

In all forms of group selection, intra-group selection against altruism is effective (by definition of altruism). Hence, altruistic groups decrease in altruism, while mostly selfish groups decrease in altruism to a lesser extent. Hence intergroup variation tends to decrease. And hence selection between groups has less raw material to work with. We need a mechanism to restore variation between groups. Without such a mechanism, group selection runs out of gas. That is the heart of the classical (1960s) argument against group selection. (And it is my understanding of the thrust of those three references that we can't read, is that they close the door to the possibility that kin selection without kin recognition might provide an exception to this classical argument if we just tune the viscosities right.)

Outbreeding as such, doesn't necessarily help restore intergroup variation. But the periodic dissolving of groups into the general population and the creation of new groups from the common pot MIGHT help. It could do so if there is assortive group formation (but now we need an explanation for THAT!). Or, it could do so if the newly formed groups are small enough that we get the needed variation between groups from simple sampling error. The Perrin quote and the Sterelny example discussed elsewhere seem to make use of assortive group formation. The example described in "Unto Others" makes use of sampling errors.

I hope that explains it.