

Re: Patterns of evolution in intellegince

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sshrrp@hotmail.com (melvin) wrote in news:cidugs\$u29\$1@darwin.ediacara.org:

- > *I have encountered a very interesting problem where a complete paper*
- > *was written*
- > *on methods of approach to this problem.*
- >
- > *The problem is, in a game show, every round a contestant is shown 3*
- > *unopened doors, two have a goat and one has a car. The contestant then*
- > *chooses a door that remains unopened and the host always opens one of*
- > *the other two doors which always reveals goat. Should the contestant*
- > *switch? The answer is yes with a success of 2/3 if the contestant*
- > *always switches. Most people think the chances are 50/50 and it makes*
- > *no difference and the problem leads to many heated debates. Many*
- > *people never become convinced of the correctness of*
- > *the solution and for many it remains counterintuitive*
- >
- > *Some psychologists have studied in detail what leads people to the*
- > *right or wrong conclusion and it would be interesting if one could do*
- > *a study to tie in evolutionary pressures in intelligence to shed light*
- > *on why the approaches to this problem are so divergent or if certain*
- > *types of thinking though wrong still have an evolutionary benefit*
- > *which outweighs the negative effects of incorrect reasoning.*

You might enjoy reading Pinker's "How the Mind Works", which discusses some of these issues. As Pinker notes, part of the problem is that our intelligence is not as general as some have assumed, so that the particular phrasing of the problem may affect how "counterintuitive" it is. He gives the example of people being shown the following cards:

D F 3 7

and being asked which cards would have to be turned over to test the rule "If a card has a D on one side, it has a 3 on the other". Many people incorrectly chose either just the D card, or the D and the 3 card.

However, when given the problem of being a bouncer in a bar and having to enforce the rule "If a person is drinking beer, he has to be over 18",

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almost everybody can correctly figure out who to check given the group of a beer drinker, a Coke drinker, a twenty five year old, and a sixteen year old.

It would be interesting to try to come up with a similar often encountered logical equivalent to the game show problems (which I have seen before and can understand on a logical basis, but still find counterintuitive), and see if people do any better.

Yours,

Bill Morse