Experiment: 1800 games were played in unlimited mode between Gnu_bg and a human player. The human player (myself) played the first 20 games then all the remaining games were played using the "end game" option (basically the algorithm played against itself).


|  | Gnu_bg | Human | t-test. $1 ; 2$ tails; n |
| :--- | :--- | :--- | :--- |
| Total wins | 923 | 877 |  |
| Total score | 1187 | 1085 |  |
| 1 pt. wins | 678 | 669 |  |
| gammon wins | 254 | 208 | $0.34 ; 0.069 ; \mathrm{n}=18$ |
| 1 pt. wins $/ 100$ games | $37.17 \pm 3.94$ | $36.5 \pm 5.83$ | $0.016 ; 0.033 ; \mathrm{n}=18$ |
| gammon wins/100 games | $14.11 \pm 3.01$ | $11.56 \pm 3.84$ |  |

## Legend

Differential score $=$ Points of Gnu_bg - Points of human
1 pt. wins/100 games = mean number of 1 points wins per 100 games (mean $\pm$ standard deviation). This is equal to the probability to win a gammon that is gammon wins/1800 gammon wins/100 games = see above
t-test = t-test results between 1 pt. wins and gammon wins with 1 -tail (appropriate in this case since we are looking for bias) and 2-tail (not necessary but indicative anyway).

Data fitted to $y=a x$ where the coefficient a and one standard deviation are $=4.48 \pm 0.09$ points per 100 games.

There were 10 backgammons each. These have not included in the calculations.
The difference between the probabilities to win a gammon is $2.55 \%$. With this error, after 1800 games the level of confidence is $98 \%$.

