

Playing Go, the performance and scaling seems to be easy and quite significant. So we propose to make use of the game in order to measure and to calibrate the effect of cooperation and non-cooperation, respectively. It might be a hint of human understanding and psychology. The procedure goes following:

Three (-approximately-) equally strong players "A"; "B"; "C", play in such a manner as always 1-player, for example White, has to fight against 2-Players who together play the opponent party (Black).

Essentially this constellation should be changed round-robin among the players in order to eliminate personal attitudes and even-out statistical properties, fluctuations.

For example the arrangement works the following:

a) Cooperation: (for convenience to be played on 2-boards.)

The party of 2-players (Bl.) are consulting each other for the next move, strategy and tactics.

>The outcome may be:

A (W)	against	B + C (Bl.)	Result:	29 pts. (Bl. = wins)
B	" "	C + A	" "	5 " "
C	" "	A + B	" "	41 " "

Total: = 72 pts. for Black

Evaluation of results is by taking the average. $72/3 = 24$ pts.; -5pts (Komi) makes: = 19 pts. With cooperation Black is better by 19 points. (maybe: 1 1/2 Stone-Handicap.)

b) No - cooperation: (on one-board may be played.)

The party of 2-players is not allowed to exchange any opinion during the game: neither speaking nor any signs of consultation. They have to make a move each other alternatively.

> The playing may be: Result:

A (W)	against	B # C (Bl.)	Result:	15 pts. (Bl. = loss)
B	" "	C # A	" "	7 " "
C	" "	A # B	" "	26 " "

Total: = 48 pts. for White

Evaluation of Results is by taking the average ... $48/3 = 16$ pts.... +5 pts (Komi) makes:...= 21 pts.

Without cooperation of Black, White is better by: ...21pts. (maybe: 2 - Stone-Handicap.)

To furthermore eliminate statistical fluctuations such a round of 6 games must be repeated several times.

The effect of cooperation to non-cooperation will be more exact and clearly demonstrated. Finally it might be very interesting to repeat such a procedure at different levels of Go-strength.

For example it may be tested with: 3-players at 10-Kyu-level; 3-players at 1-kyu-level; 3-players at 4-Dan;

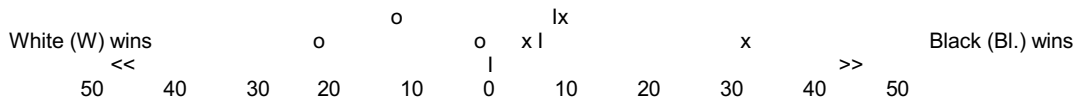
and finally it might be of utmost interest to get 3-Profi-Dan players to test this.

A realistic first round had been undertaken in Winter 2000/01 with three players in Wilhelmshaven.

Wolfgang Gerdes (Ge) = 3-Kyu; Klaus Heine(He) = 3-Kyu; Thorsten Stahlhut (ST) = 4/5-Kyu.

(The difference in strength of thorsten Stahlhut has been calibrated by 10pts. per 1-Kyu.)

Actual results already exist:



Without consultation = o

With consultation = x

Games played without consultation: (in Dec. 2000)

He.(W) - Ge # ST (Bl)
 Ge (W) - He # ST (Bl)
 ST (W) - Ge # He (Bl)

Results:

W - wins by 29 pts.
 W - wins by 20 pts
 W - wins by 8 pts.

Games played with consultation for Bl.-players (in Jan.2001)

Ge. (W) - He. + ST. (Bl)
 He. (W) - Ge. + ST. (Bl)
 St. (W) - Ge. + He. (Bl)

Results :

Bl. - wins by -2 pts!
 Bl. - wins by +2 pts.
 Bl. - wins by +26pts.

The results seem to be plausible:

Without - consultation: W.-wins $(29+20+8)/3 = 19$ pts. With -consult. Bl.-wins: $(2+26-2)/3 = 9$ pts

This result may be interpreted as: Consultation augments "intelligence" of the party about one stone of handicap equal to 10 pts.

Whereas no consultation results in some degree of misunderstanding and chaos, thereby weakening the performance to about 1 1/2 stone - handicap.

This result however only can be considered as preliminary. A lot of more work - i.e. games - has to be elaborated rather painfully in order to certify more sufficient precision....Afterwads the research should conducted at different levels of strength.

I want to point out however that there are substential difficulties of organisation, in arrangement and to coordinate the 3-people of approximately equal playing strength. Aswell the 6 - games must be performed in not too long a time, let's say within a month or 6-weeks. So this undertaking will be quite strenuous for such a group. They must be seriously interested to get the results.

The difficulty of psychology also must be taken seriously: the result afterwards only consists of some meager figures, some points. They appear at first glance rather meaningless. It needs a good mind of persistence to keep to the end.

But finally: a lot of such rounds will give good evidence how to appreciate "cooperation".It is calibrated by thist to be a unique method that hitherto not yet has been possible.

To whom it may concern: If there is somebody, a group of 3-players giving results, please contact this

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