

Using Communal Inquiry as a Way of Increasing Group Cohesion in Soccer Teams

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Introduction

Much has been written about the importance of creating cohesive units in such settings as the military (Dvir et al.), the work environment (Purvanova et al.), as well as in sports (Callow et al.), on the assumption that an increase in the sense of cohesiveness enhances the unit's performance. What was particularly intriguing to the authors (one of whom is also a soccer coach) is that Callow et al. argue that "intellectual stimulation" can enhance group cohesiveness in sports teams. By intellectual stimulation they mean the sort of thinking that emerges when individuals, in "constructive conflict," are able to view situations from different perspectives, and so are prompted to reexamine their assumptions and to rethink how to go forward (396). This sort of intellectual stimulation, therefore, is not the solitary kind that one might experience in, for instance, doing math problems; it is, rather, the sort that emerges when in communication with others.

This kind of "communitive thinking" that emerges when confronted with the challenging perspectives of others is precisely the sort of experience offered to individuals who engage in Communities of Philosophical Inquiry (CPI's), the pedagogical cornerstone of Philosophy for Children (P4C). Since both authors are deeply involved in the practice of P4C, it seemed like a worthwhile endeavor to test out whether frequent participation in CPIs might result in an increased sense of cohesiveness in the soccer team which one of the authors coached.

To test out this hypothesis, the authors undertook the following research project. We engaged a team of soccer players (aged 13) in 10 biweekly hour-long CPIs on topics we hoped would be of relevance to the players. We asked players to bring questions from which they could choose, and we also provided questions.

We attempted to quantitatively measure group cohesion using the *Group Environment Questionnaire* (GEQ) (Steca et al.) which consists of 18 self-rating items which measures cohesion in the sense of whether individuals perceive their respective goals as meshing, and whether they sense that the team is united in pursuing its goals. We chose to use this measurement tool because of its widespread use in measuring group cohesion in sports teams, but also due to its validity (see below for more detail). Our goal was to try to measure whether engagement in CPI's did, in fact, enhance team cohesion (Goal 1).

We also included questions from the Budner ambiguity questionnaire for the following reason. Since the number of CPIs was necessarily limited, we needed a measure as to whether there was sufficient exposure to communal inquiry to provide the sort of intellectual stimulation that results in an increase in “communicative thinking.” In other words, if the results showed no increase in team cohesion, we needed to be able to estimate whether this was due to the fact that there wasn’t sufficient CPI exposure (either quantitatively or qualitatively) to have a significant impact to enhance “communicative thinking,” or whether the sort of intellectual stimulation offered in CPI’s does not in fact increase group cohesion. We chose the Budner ambiguity questionnaire, as Gardner found that an increase in tolerance of ambiguity correlated strongly with an increase in perspective taking. Thus, we presumed that an increase in a tolerance of ambiguity would suggest that the group had indeed been exposed to the kind of intellectual stimulation of which Callow et al. speak. This, then, was the second goal of this study: to estimate whether the CPI exposure was sufficient (either quantitatively or qualitatively) to have a significant impact on “communicative thinking” (**Goal 2**). As an aside, we were also eager to use the ambiguity questionnaire as a way of trying to disguise the main intent of the larger questionnaire, which was to measure group cohesion.

The third goal was experiential: we wanted to experience how easy or difficult it would be to transplant engagement in Communities of Philosophical Inquiry—a relatively academic pursuit, into a group of athletes who came together primarily for the purpose of engaging in physical activity. We viewed this study as a test run so that we might estimate the sort of alterations in the *usual* CPI format that might be necessary for genuinely engaging sports teams (**Goal 3**)

The Study

Description of CPIs

In a typical CPI, participants sit in a circle and, with the help of a facilitator, inquire about a question that has either been provided by the facilitator or which participants themselves have formulated as a result of being exposed to some kind of stimulus.

The present study differed in several ways. For one, in all the CPIs, there were always two facilitators together (Newby and Gardner)—one starting and the other jumping in to ask questions when it seemed appropriate.

Generating questions also varied. Initially, participants were asked to put questions that interested them into a suggestion box that was brought to practices. The questions were then put on the board from which the participants picked. Though the participants did indeed put questions in the box, it turned out that they did so primarily to fulfill the request, rather than coming up with questions of genuine interest. Thus, though the question “At what age should parents allow their offspring to date?” was put in the suggestion box and was picked by the group, it was evident, after some discussion, that no one was in the least interested in the question because no one was interested

in dating (note: they were all 13-year-old girls). The same problem arose with the question as to whether parents should allow youngsters to get a tattoo.

A new strategy was then adopted, with the facilitators providing the questions. An example of such a question was one taken from Alina Reznitskaya's *The Most Reasonable Answer* on whether, when in competition with another, one should stay silent if the opponent is unfairly penalized in some way. Though this question in Reznitskaya's book was about art, it slid easily into the game of soccer and so elicited enthusiastic participation. All the questions that were explored can be found in Appendix 1.

The Sample

These questionnaires were given to The Fraser Valley Selects 04 girls' soccer team: A team of 18 female players aged 13-14. (the experimental group). The questionnaires were also given to The Abbotsford Soccer Division 1 04 girls team (the control group): A local soccer team of the same age but at a slightly lower skill level than the experimental group.

Measurement Tools

We chose to measure the group cohesion by using the Group Environment Questionnaire as it had already been shown to be a valid measure of group cohesion. For example, Whitton and Fletcher write that "a review by Carron et al. found substantial support for the validity of the GEQ." (70) Further, Carron et al.'s review of the GEQ "also found empirical support for GEQ predictions of variables such as group size, leadership, team building, role involvement, and collective efficacy." (71) As well, Whitton and Fletcher note that their study "provides evidence for the multilevel factorial validity of the GEQ." (1)

The 18 questions of the GEQ are designed to measure 4 distinct variables: **Attraction to group-social** (AGS) (A measure of whether an individual enjoys spending social time with the group); **Attraction to group-task** (AGT) (A measure of whether an individual's goals align with the group's); **Group integration-social** (GIS) (A measure of whether the group actually socializes with others in the group); **Group integration-task** (GIT) (A measure of whether the group seems united in terms of attempting to reach its goals). See grouped questions in Appendix 2.

We also chose to intersperse the GEQ questions with questions about ambiguity from Budner's **Tolerance of Ambiguity** scale as a measure of the adequacy of CPI exposure: that is, whether or not there was sufficient exposure to alter thinking (see explanation above). See grouped questions in Appendix 2.

We gave both the control and the experimental group the questionnaire before the soccer season began (and hence before the exposure to CPI's) and after the CPI's at the end of the soccer season. See questionnaire with interspersed questions in Appendix 3.

Method of Analysis

We used a t-test to compare (1) the means of each of the 5 variables (ambiguity and the 4 GEQ cohesion variables) before and after the CPI exposure in the **experimental group** in order to estimate if the CPI'S had an impact on group cohesion. We used a t-test to compare (2) the mean of each of the five variables before and after the CPI's of the **control group** in order to estimate whether simply playing together for a season might have an impact on group cohesion. We then used a t-test to compare (3) the means of each of the five variables **between the experimental and the control groups before the CPI's**, as there was a concern that initial cohesion levels might have an impact on the results. We used a t-test to compare (4) the means of each of the 5 variables **between the experimental and control groups after the CPI'S** as the final estimate of whether there was an increase in group cohesion in the experimental group that was absent in the control group.

Results

Variables are as follows:

- I. Ambiguity Questions (AQ)
- II. Attraction to group-social (AGS)
A measure of whether an individual enjoys spending social time with the group
- III. Attraction to group-task (AGT)
A measure of whether an individual's goals align with the group's.
- IV. Group integration-social (GIS)
A measure of whether the group actually socializes with other
- V. Group integration-task (GIT)
A measure of whether the group seems united in terms of attempting to reach its goals.

(1) Means of variables before and after in the *experimental group*

Question	I (AQ)	II (AGS)	III (AGT)	IV (GIS)	V (GIT)
Mean before CPI	5.09	7.71	8.34	6.83	7.08
Mean after CPI	5.13	7.99	8.21	6.48	7.10
Significance	.981	.280	.576	.256	.967

(2) Means of variables before and after in the *control group*

Question	I (AQ)	II (AGS)	III (AGT)	IV (GIS)	V (GIT)
Mean before CPI	5.18	6.86	6.57	5.65	5.41
Mean after CPI	5.43	6.78	4.86	5.32	5.21
Significance	.341	.811	.001	.452	.839

(3) The means of variables between the *experimental and control group* BEFORE the CPI

Question	I (AGS)	II (AGI)	III (AGT)	IV (GIS)	V (GIT)
Mean before CPI (exp)	5.09	7.71	8.34	6.83	7.08
Mean before CPI (con)	5.18	6.86	6.57	5.65	5.41
Significance	.808	.017	.000	.001	.000

(4) The means of the variables between the *experimental and control groups* AFTER the CPI

Question	I (AQ)	II (AGS)	III (AGT)	IV (GIS)	V (GIT)
Mean after CPI (exp)	5.13	7.99	8.21	6.48	7.10
Mean after CPI (con)	5.43	6.78	4.86	5.32	5.21
Significance	.239	.001	.000	.009	.000

Discussion

The first thing of note with regard to **Goal 1** (measuring the impact of engagement in CPI's on cohesion) is that there was no significant difference in team GEQ scores before engaging in CPI's at the beginning of the season, and at the end of the season (table 1). However, interestingly, there was a significant difference in GEQ's scores *for the control group, in particular variable III*, but the difference was a *decrease* in team cohesion after a season of playing together (table 2). By contrast, there was no decrease in team cohesion over the course of the season in the experimental group (table 1). It is difficult to interpret this finding. It may have been that engaging in the CPI's was sufficient (though not measurable—see below) to prevent a decrease in team cohesion that may happen as a result of the trials and tribulations of disparate individuals trying to work as a unit. On the other hand, since the experimental group had higher scores on the GEQ to begin with (table 3), it may be that once a team reaches a certain level of cohesion, it can more easily withstand the dissipating forces of what might turn out to be a tiring season. Further study would be needed to tease out the answer.

With regard to **Goal 2** (attempting to measure whether this limited exposure to CPI's was sufficient to enhance the sort of communicative thinking that emerges with perspective taking), the results suggested that this was not the case, at least in the sense that engagement in the 10 biweekly CPI's within this setting had no significant impact on ambiguity scores (table 1, column 1). On the other hand, we had anecdotal evidence that the experience was fruitful. The following are examples of some of the comments received.

"The team is playing much more connected and together." (Father after week 4 of the CPI's)

"She (Dr.Sue) helped my grade in socials go up 10 percent!" (Player)

"We are often having these conversations around the dinner table after training" (Mother)

"We often have fantastic discussions on the ride home after these sessions" (Mother)

With regard to **Goal 3** (trying to estimate how easy or difficult it would be to transplant engagement in Communities of Philosophical Inquiry—a relatively academic pursuit—within a group of athletes who came together for the purpose of engaging in physical sport) our conclusion is that running the CPI's with this group was substantially harder than anticipated. For one, it took a lot of effort (even having a seasoned CPI practitioner as a co-facilitator) to get participants to let down their guard sufficiently so that they would talk openly in front of the group. This may have been because of the nature of the group—namely that it was a sports team who has never experienced this kind of activity during what is usually physical practice. As well, it may have been because of the context in which the CPI's took place, namely in a classroom right before having practice in the adjacent gym. As well, while we explained to the players that the purpose of these sessions was to enhance critical thinking both on and off the field, more often than not, there was a sense of wonder as to why on earth we were doing this.

As well, the process of finding relevant questions by which to inspire genuine inquiry turned out to be agonizing. As mentioned above, though participants were diligent in providing questions for inquiry, as requested, they did so in an utterly perfunctory way. The questions submitted turned out to be questions that were utterly uninteresting to virtually everyone in the group. The situation improved significantly when we read short snippets of stories from Alina Reznitskaya's *The Most Reasonable Answer*, and then asked an explicit question, such as whether, in competition with another, one should stay silent if the opponent is unfairly penalized in some way. Interestingly, the most successful CPI was the last, and the topic in question was one of politics, namely whether the so-called "Dreamers" in the US should be allowed to stay despite the potential of opening up the flood gates to massive legal and illegal immigration. Participants were told that they should consider themselves members of Congress and that, at the end of the CPI, there would be a secret ballot as to whether or not the Dreamers could stay. (FYI: the majority decided to let the Dreamers stay.)

The lesson that this on-again off-again participation suggests to us is that genuine engagement in a CPI requires that participants believe that "moving toward truth" on this issue really *matters*—that the topic is of significant import. Indeed, were we to do this study over again, we would restrict topics to those of contemporary social and political importance—as these had the added benefit that participants seemed genuinely pleased to be learning about something of which they were ignorant but which had genuine contemporary importance.

Finally, we learned from this experience that having *two* facilitators run a CPI, rather more than one, increases the ease and potential effectiveness of the inquiry. Anyone who has experienced stunted participation in a CPI will appreciate what a blessing it would be to have someone beside you who managed, at just the time when the inquiry seems to have come to a dead halt, to come up with a question or analogy that breathes life back into the interaction.

Conclusion

In summary, then, this study found no evident increase in team cohesion in the experimental group as a result of partaking in CPI's. However, there was at least no parallel decrease in team cohesion over the season that was evident in the control group. This study was unable to determine if this discrepancy between the control and experimental groups was due, in part, to participation in CPI's by the latter, or whether it was due to the initial high level of cohesion in the experimental group to begin with.

Using the tolerance for ambiguity as a measure, the study suggested that 10 biweekly CPI's carried out in this setting made no measureable impact on the kind of communicative thinking that emerges with perspective taking.

We did learn, however, that running CPI's within a setting that is utterly foreign to academic work, such as a soccer practice, was difficult in the extreme due to reluctance to speak openly of one's personal opinions in a situation in which one rarely does so, and because of the difficulty finding questions that genuinely grabbed participants' interest.

Were a study such as this to be done again, we would recommend more frequent CPI's, as well as restricting CPI questions to those that are obviously pertinent to contemporary issues. We also highly recommend to all facilitators of CPI's that they work in pairs.

APPENDIX 1—List of CPI Questions

- 1) Is it ok to listen to lyrics like this – “I take your bitch right from you, Bitch I’m a dog, woof, Beat the ho walls loose, hop in the frog, woah, I tell that bitch to come for me”.
- 2) Are your parents justified in deciding whether you can have a tattoo or piercings? *
- 3) Why are dress codes sexist – which evolved into Are schools justified in having a dress code? *
- 4) Should parents put an age limit on when their teens should date? *
- 5) Are you justified in taking your cell phone into your room after dinner? *
- 6) Are religious people justified in looking down on atheists? *
- 7) Multiple questions were explored based on a pre-made scenario about Thomas and Adam who played on the same hockey team but on different teams in football. Adam was mad at Thomas because he cheated and their team won and Adam’s team was eliminated from the tournament. Was Adam justified in feeling this way? Could Adam have controlled this emotion, even if he wanted to? If Adam doesn’t somehow get rid of this feeling will it effect the way they play hockey? Might this conflict between Adam and Thomas actually be a good thing for the team?
- 8) The question “what should Kelly do” was asked after explaining the scenario between Kelly and Evelyn.

- 9) A scenario in which there was a grizzly bear that had to be put down in the Yellowstone National Park due to it killing two people. The question was “was Gunther (park ranger) justified in putting down the bear (based on the scenario)?”
- 10) CPI about DACA – the question was posed to the group would you vote as a republican or a democrat with respect to DACA (Dreamers Act).

In the above, the questioned marked by an * indicate that they were suggested by members of the group. These sessions lasted for 1 hour and were held approximately every two weeks from November until May.

APPENDIX 2

Note: starred questions * are those whose answers were transposed so that a higher number on all questions measured an increase in what variable was attempting to measure.

Ambiguity Questions

- *1 - An expert who doesn't come up with a definite answer probably doesn't know too much.
- *2 - A good job is one where what is to be done and how it is to be done are always clear.
- 6 - It is more fun to tackle a complicated problem than to solve a simple one.
- *8 - What we are used to is always preferable to what is familiar.
- *12 - A person who leads an even, regular life in which few surprises or unexpected happenings arise really has a lot to be grateful for.
- 14 - Many of our most important decisions are based upon insufficient information.
- *17 - The sooner we all acquire similar values and ideals the better.
- 19 - A good teacher is one who makes you wonder about your way of looking at things.

Individual attraction to group-social.

- *3 - I do not enjoy being a part of the social activities of this team.
- *5 - I am not going to miss the members of this team when the season ends.
- 7 - Some of my best friends are on this team.
- *11 - I enjoy other parties rather than team parties.
- 15 - For me, this team is one of the most important social groups to which I belong.

Individual attraction to group-task.

- *4 - I am not happy with the amount of playing time I get.
- *9 - I'm unhappy with my team's level of desire to win.
- *10 - This team does not give me enough opportunities to improve my personal performance.
- *13 - I do not like the style of play on this team.

Group integration-social.

- *18 - Members of our team would rather go out on their own than get together as a team.
- *22 - Our team members rarely party together.
- 24 - Our team would like to spend time together in the off-season.
- *26 - Members of our team do not stick together outside of practice and games.

Group integration-task.

- 16 - Our team is united in trying to reach its goals for performance.
- 20 - We all take responsibility for any loss or poor performance by our team.
- *23 - Our team members have conflicting aspirations for the team's performance.
- 25 - If members of our team have problems in practice, everyone wants to help them so we can get back together again.
- *21 - Our team members do not communicate freely about each athlete's responsibilities during competition or practice.

APPENDIX 3

Soccer Questionnaire used in this study.

1. An expert who doesn't come up with a definite answer probably doesn't know too much.

1	2	3	4	5	6	7	8	9	
<i>Strongly disagree</i>									<i>Strongly agree</i>

2. A good job is one where what is to be done and how it is to be done are always clear.

1	2	3	4	5	6	7	8	9	
<i>Strongly disagree</i>									<i>Strongly agree</i>

3. I do not enjoy being a part of the social activities of this team.

1	2	3	4	5	6	7	8	9	
<i>Strongly disagree</i>									<i>Strongly agree</i>

4. I'm not happy with the amount of playing time I get.

1	2	3	4	5	6	7	8	9	
<i>Strongly disagree</i>									<i>Strongly agree</i>

5. I am not going to miss the members of this team when the season ends.

1	2	3	4	5	6	7	8	9	
<i>Strongly disagree</i>									<i>Strongly agree</i>

6. It is more fun to tackle a complicated problem than to solve a simple one.

- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
7. Some of my best friends are on this team.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
8. What we are used to is always preferable to what is unfamiliar.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
9. I'm unhappy with my team's level of desire to win.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
10. This team does not give me enough opportunities to improve my personal performance.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
11. I enjoy other parties rather than team parties.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
12. A person who leads an even, regular life in which few surprises or unexpected happenings arise really has a lot to be grateful for.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
13. I do not like the style of play on this team.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
14. Many of our most important decisions are based upon insufficient information.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
15. For me, this team is one of the most important social groups to which I belong.
- | | | | | | | | | |
|--------------------------|---|---|---|---|---|-----------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| <i>Strongly disagree</i> | | | | | | <i>Strongly agree</i> | | |
16. Our team is united in trying to reach its goals for performance.

