

Team Syntegrity as a Learning Process: Some Considerations About its Capacity to Develop Critical Active Learners

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Abstract

Team Syntegrity is a non-hierarchical systemic protocol designed by Stafford Beer for organising conversational interactions among a set number of participants. In this paper we will examine Team Syntegrity as a protocol that allows for and enhances the learning of its participants; also we will propose some elements that might be taken into account to enhance its power to promote intellectual autonomy in the participants and to help them become critical active learners. In order to do this, we will first provide a brief description of Team Syntegrity, to contrast it with other systemic approaches in terms of the restrictions they impose on the conversation. Then we will characterise conversational processes of knowledge construction or reconstruction, from some restrictions that may impinge on the conversational process and learning of the participants. And finally, we will formulate some general ideas about how Team Syntegrity could be complemented so that the scope of the participants' learning is enhanced.

Keywords: Critical learning, Team Syntegrity, conversation protocols, systems thinking, organisational cybernetics.

Introduction

The Team Syntegrity Methodology has resulted from the last eleven years of research of the late Professor S. Beer. Following his work on the Viable System Model where he introduced criteria for studying the capacity of social organisations for adaptation and survival, he tried to respond to some key questions related to the development of non-hierarchical organisations able to self-organize and work cooperatively when agreeing on strategic or conflictive issues. Some of the issues he addressed can be expressed in the following questions: How to design communication protocols that facilitate a participatory and fair dialog among people holding different viewpoints that are equally legitimate? How to promote conversational contexts that facilitate the building of agreements from a diversity of speeches? How to integrate distributed knowledge to develop shared knowledge as criteria for guiding social actions? [Beer (1994)].

Now, while it is rather clear that the conversational protocols developed by Beer do overcome many of the barriers to genuine communication and participation that have traditionally affected processes of learning and of decision making, there is still the little-examined question of exactly to what extent it does it, and along what dimensions. One of the main purposes in this paper is,

precisely, to examine these issues in depth. However, our aim is not destructive, but in essence constructive: We have participated in Team Syntegrity events, in various roles, and are highly aware of its benefits and potential. So another main purpose of this paper consists in the delineation of some aspects that we think should be reflected on, and possibly developed more systematically in the near future, in order to improve the virtues of the protocol.

To give an answer to those questions, we will analyse conversational restrictions in general, by means of a comparison of those provided by Team Syntegrity with those provided by other systemic approaches. The emphasis here is put on those linguistic spaces that are opened, or closed, or simply left untouched, by the different kinds of conversational restrictions. The main distinction we will invoke will be that between restrictions on the form of the interactions, and interpretative restrictions on content.

We start with a brief explanation of Team Syntegrity. Then, three systemic approaches are introduced, particularly as regards the way they attempt to structure—and therefore restrict—various aspects of conversation. The Freirean notion of *critical consciousness* [Freire (1973)] is introduced here to help describe how these restrictions can affect learning. Following that, the analysis is generalised, and some conclusions are drawn concerning Team Syntegrity. Finally, we will propose a few guidelines, not yet developed into concrete methods or techniques, which can help organisers and/or participants of Team Syntegrity events improve learning along those lines.

1. Team Syntegrity

Team Syntegrity has been described as an approach that supports decision processes in a participative non-hierarchical organisation, by means of a conversational protocol based on the structure of icosahedrons. Extensive use of the methodology has demonstrated that it is particularly useful for supporting teamwork related to planning, innovation and knowledge acquisition processes [Schwaninger (1997)]; and also for integrating, through a democratic and highly interactive context created for dialogue, the implicit knowledge and experience in the minds of those working to solve a problem or agree on an important public concern [Malik (2001)].

There are some features that we want to highlight from the methodology, in order to describe it. There is an opening question that focuses the meeting. The agenda for the discussion is self-built; that is, the participants produce it during the event. For this purpose, there is a clustering of the participants' concerns regarding the opening question into twelve main issues or topics. Each topic is discussed by one of twelve sub-group. The twelve groups, or full set of participants, are called an *infoset*. The organisation and distribution of the participants in the groups is designed based on the structure of an icosahedron, where each vortex represents an issue for discussion, each edge stands for a participant, and two opposite vertices refer to two issues that may be debated simultaneously. For each issue there is a number of meetings. Participants play three roles during the discussions: *Team member or advocate*, *critic*, and *observer*. The organisation of the event provides facilitation and logistic support for the team meetings; however, the responsibility for the content and conclusions produced by each working group belongs to the group itself.

The protocol is the set of rules that a group of people agree to respect to develop a discussion of the issues that are interesting for everybody, but about which each one may hold a different viewpoint. One of its purposes is the production of a conversation in which every participant's voice is heard, and no single one of them is allowed to dominate over the others by means of authoritarian imposition. It deals with the form of the interactions between the participants in the

discussion, by using a highly interactive and democratic structure of highly interrelated groups that offers the best possibilities of balancing tension and synergy when groups are negotiating on strategic or conflictive views. It is based on how people are distributed into sub-groups, and on how meetings of the twelve groups are sequenced and repeated, distributing information from group to group. There is no restriction to the content development during the working sessions for each team. As such, the protocol makes no comment at all about the linguistic content of those interactions, or what the participants say. That is left up to their judgement.

2. Other Conversational Approaches in Systems Thinking

Other systems approaches also promote the occurrence of conversation and debate, as part of processes of problem solving, decision-making, learning, and so on. This is the case of, for instance, Soft Systems Methodology or SSM [Checkland (1988), and Checkland and Scholes (1990)]; Strategic Assumption Surfacing and Testing or SAST [Mason and Mitroff, (1981)]; and Critical Systems Heuristics or CSH [Ulrich (1987)], among others. The emphasis is somewhat different, as all these approaches just mentioned do indeed try to guide the contents—or what is said in the conversation or debate—even if only in a very open and non-restrictive way. This has presumably some bearing on the kind of learning that the participants can expect to experience in such a process.

All of them have been categorised as mainly belonging to the paradigms called interpretive and emancipatory [Jackson (2000)]. Interpretive systems thinking has been characterised in terms of a number of different aspects, among which are that there is “no assumption that the real world is systemic”; that they do not use models to represent the world, but “to interrogate perceptions of the real world and to structure debate about changes which are feasible and desirable”; and that “the intervention is best conducted on the basis of stakeholder participation” [Jackson (1999), p.21]. SSM and SAST are said to be interpretive approaches. Emancipatory systems approaches would be distinguished from interpretive ones, among other aspects, in that “analysis of the problem situation is designed to reveal who is disadvantaged by current systemic arrangements”, “models are used to ‘enlighten’ the alienated and disadvantaged about their situation and to suggest possible improved arrangements”, and in that “the intervention is conducted in such a way that the alienated and/or disadvantaged begin to take responsibility for the process” [ibid.]. CSH has been argued to be an example of this type of approach, just like Team Syntegrity.

All the approaches mentioned provide some guidelines for the debate, in order to maximise the learning and understanding that can take place in it. This way, for instance, in SSM the perspectives brought into the conversation are re-described by means of systems ideas, to help participants understand and distinguish the various views entering the conversation. It further serves to clarify them as well as some of their implications, in terms of, for instance, what the “system” does (transformation); who is supposed to benefit from it (clients), and what worldview underlies and gives sense to it (*weltanschauung*). Another approach, Ulrich’s CSH, similarly provides some guidelines for re-describing the views that enter the conversation, so that participants can easily recognise what the normative and indemonstrable assumptions of each view are [Ulrich (1983 and 1987)]. The tool used for this purpose is the *boundary questions* for revealing *boundary judgements*. Some of these boundary questions refer to similar categories to those specified in SSM, such as *clients*, *purpose*, and *world-view*, as well as others which are more clearly related to the critical intent behind CSH. These approaches’ rules—or restrictions—for the description or interpretation of the views that enter the conversation, focus specifically on the contents of those views, and particularly on how those contents should be interpreted. That is, they attempt to give the methodology users some conceptual tools with which they can improve

their interpretations of those views entering the conversation, by acknowledging some of their implications and limitations. This way, for instance, both SSM and CSH remind their users that any purposeful system has certain clients, and that this aspect is crucial when evaluating what action to take. This is of central importance because participants in a conversation may not take that fully into account without a methodology like these that makes that explicit. On its part, Mason and Mitroff's SAST provides a mixture of restrictions on contents and on the form of the conversational interactions [Mason and Mitroff (1981)]. In terms of content restrictions, SAST suggests that an inquiry must be conducted in which each group's proposal or view is critically examined to determine the assumptions that underlie it, particularly as regards presuppositions about the behaviour of actors who may influence either positively or negatively the success of the proposal for action. But let us notice that this is, again, a way of interpreting or describing the various views—in this case proposed strategies—in a particular way. Now, what is interesting about this is the critical role that the restrictions on content play in the conversation, which is to allow for and guarantee reflection on specific aspects of the views entering it, that might not have been identified by the participants were it not for the instructions given by the methodology. On the other hand, the restrictions on the form of the interactions provided by SAST seem to be designed to help in the construction of the alternative proposals for action and in their critical questioning.

3. Critical Consciousness, Critical Active Learners, and Language

In the previous section of this paper we already gave some hints on the issue of how rules of interpretation—which are what we have called restrictions on content—may affect learning: They direct the user's attention to certain issues which otherwise s/he might not have considered in her/his analysis. We are now going to introduce in this discussion two more related concepts mainly drawn from the work of Paulo Freire—*critical active learning* and *critical consciousness*—in order to explain in a more thorough way what goes on when restrictions on content are used.

A recent experience in which Team Syntegrity was used to coordinate development of an academic course on re-engineering left us with some considerations on the effectiveness of the methodology for creating a truly democratic learning context. By following Paulo Freire's idea of an active learning group, we reviewed the experience and concluded that the learning process might be enhanced by developing active critical learners as members of the infoset; that is, people able to responsibly develop their own awareness and critical postures about the social meanings guiding their purposes and actions [Espinosa, (2000)]. From Freire's work, however, it can be seen further that being an active and critical learner involves much more than just an attitude. In fact, Freire postulated the need for a *critical consciousness*, which implies a deep and holistic understanding of social reality and of its causes, as well as a dialogical attitude of openness and a will to revise one's knowledge [Freire (1973)]. Freire's educational projects can indeed be mainly regarded as inducing processes of development of a critical consciousness.

Interestingly, and as has been argued elsewhere [Mejía (2001)], the very concept of critical consciousness implies necessarily a reference to contents: The object of inquiry of the critical person is mainly ideologies, manifested either in views, or in social reality as constructed by people. And critical consciousness demands from the critical person asking certain critical—and in Freire's case political—questions about those ideologies questions like “what is the ideology that stands behind a particular view or social arrangement?” and “who benefits from the implementation of this ideology in social arrangements or practices?” [Burbules and Berk (1999)]. Now, by answering these and similar questions about a particular ideology, one is effectively

providing a [critical] description or interpretation of that ideology. Let us now highlight the similarity in the critical role played by Freirean questions about ideologies on the one hand, and by SSM's, CSH's, and SAST's categories for describing or interpreting views or proposed strategies. One difference, however, consists in the fact that arguably Freire's texts do not only provide the questions, but also the hints as to how those questions should be answered. That is, it can be argued that Freire does not stop at asking people to reflect on, for instance, who the clients are of a particular [socio-economic] system, but further shows how that question should be answered in terms of issues of class and perhaps also race [Mejía (2001)]. Moreover, and perhaps because of this, presumably the Freirean approach takes critical consciousness as something that is not developed by means of only giving people a set of aspects they should be paying attention to—as was the case with SSM, CSH, and SAST—but that should additionally be acquired through a process in which some guidance is necessary. That guidance is what would help people answer the critical questions provided by the approach. Critical consciousness in this view does not come about with only the imparting of instructions, but by means of a process of guided learning.

The Freirean approach, more radical as concerns restrictions on content in comparison with the other systemic approaches examined before, gives us for that reason a good case for examination. It can be argued, and indeed has been argued elsewhere [Mejía (2001 and 2002)], that the reference to contents that Freire's critical consciousness provides is necessary for becoming an active and critical learner. But why is this so? Why is a guided inquiry into contents needed? We will not reproduce the whole argument here, but it can be summarised as follows: Belief systems or ideologies are not transparent, given, or readily available for questioning, but they must be interpreted. Interpretation is a process carried out by some interpreter with the knowledge resources s/he has available. Now, because a critical understanding of a belief system requires the use of resources that may lie beyond those presently available to some interpreter, s/he might fail to identify and address important issues concerning that belief system. For instance, a person not acquainted with issues of gender may fail to see gender aspects in a view or proposal for action that s/he is currently evaluating—for example one presented by someone else in a conversation—unless someone directs her/his attention to them. And that is exactly what a feminist radical approach would do. But that failure implies that the interpreter simply cannot become totally responsible for the adoption or rejection of the particular ideologies or belief systems under examination, or at least of those aspects of them that s/he did not consider. And, importantly for the purpose of this paper, learning may be impaired. It is crucial to clarify here, however, that an approach that compels its users to reflect on specific issues does not guarantee that all relevant aspects will be reflected on. It is only guaranteed that they will reflect on the specific issues the approach explicitly mentions, which of course may not cover everything that is important. This way, for instance, Freire has been criticised for not having promoted a critical consciousness in his students that also takes into account issues of gender [Weiler (1996); Brady (1994)].

The systemic approaches mentioned above will in essence do the same as a radical one such as Freire's, given that they are also based on interpretative restrictions on content. However, there is a difference in that a more radical and fully-fleshed approach will specify to a greater degree the contents that it introduces for reflection and discussion. This has at least two consequences: On the one hand, it is made sure with more certainty that specific issues will be reflected on or discussed. In the example of the previous paragraph, this means that a radical feminist approach will direct attention much more concretely to how a particular proposal for action being discussed may affect women differently from men. But this may be difficult to see with only a generic category of reflection such as *clients*, or *the affected*, as those used by SSM and CSH. In general, the more specified the contents introduced by the approach, the more it is made sure that the issues involved in those contents will be reflected on and discussed. In an extreme case, when a

conversational restriction is not based at all on contents—but, for example, on the form of the interactions—then no reflection on specific issues is guaranteed by the approach. A further implication is that one's failure to consider a particular aspect or dimension means that there will be unexamined presuppositions entering one's position or analysis; at least one about the lack of importance of those aspects or dimensions not considered. Again, let us keep in mind that an approach that does specify some contents for reflection, cannot guarantee that *all* the relevant contents will be reflected on, either; only those it specifies. The second consequence refers to the fact that the introduction of more specific content implies that there is more knowledge that the approach user will have to adopt in order to acquire the critical consciousness that allows her/him to produce critical interpretations of views or proposals for action. And this in turn means that s/he is more prone to having that knowledge imposed on her/him. This tension, however, seems an insoluble product of language. A more detailed treatment of these issues appears elsewhere [Mejía (2001 and 2002)].

4. Conversational Restrictions and Team Syntegrity

This argument is connected, precisely, with the way we are proposing to understand how conversational rules or restrictions may affect learning. We have already distinguished between those rules or restrictions on the content of the belief systems that enter the conversation, and those affecting the form of the interactions among the participants in conversation. As mentioned before, those proposed by Team Syntegrity are largely of the latter kind, whereas those proposed by approaches such as SSM and CSH are of the former.

About content-based conversational restrictions, we have argued that by explicitly pointing at specific aspects of content, they are making sure that those aspects will not be ignored or pass unnoticed in the critical interpretations produced by the participants in conversation.

Team Syntegrity, however, does not provide content-based restrictions. It focuses on the form the interactions should take if there is to be maximum constructive engagement of the views brought in by the participants. They make sure, for instance, that no single person or group will dominate the conversation by being the ones who talk, while the others only listen. Additionally, they make sure that what is said by any participant will reverberate throughout the whole arrangement of discussants—even in the teams s/he does not belong to—and that therefore it is likely that it will be taken seriously in the conversation. But in any case, the Team Syntegrity protocol does not deal with content. Because of this, it has to rely on the content brought into the conversation by the participants, or developed as part of the learning process that takes place during the conversation. But precisely for that reason it cannot guarantee that all relevant aspects will be reflected on and discussed. More generally, Team Syntegrity can be said to be a protocol that attempts to maximise the learning that can be had by means of the use of the content resources that have been introduced by the participants, without problematising, however, the fact that they may be lacking in some aspects. As said in the previous chapter, it should be clear that content-based restrictions cannot guarantee that all relevant aspects will be reflected on and discussed either. They can only guarantee reflection on those specific contents defined by them, that is by the restrictions themselves.

There is, however, one way in which Team Syntegrity does try to deal with this: As each participant will bring into the conversation her/his preferred views on the topic of the opening question, by maximising the variety of the backgrounds and ideological orientations of the participants the content resources entering the conversation will be maximised as well. This is certainly an important step in this direction, and Team Syntegrity recommends taking it.

However, difficulties of multiple types might hinder or impede the fulfilment of this recommendation. These difficulties range from financial and logistic ones related with bringing persons to the physical location of the event—in case there is one physical location—to others like the actual impossibility of some agents to participate in this or any conversation due to its nature or present state—e.g. the environment, the dead, the not-yet-born, the not-yet able to participate in conversations of this type, the mentally handicapped, the animals, etc.— [Pearson (1994)]. Besides this, authors in some critical approaches might also suggest the possibility that some may not be able to represent their own interests, for instance because they are in a state of alienation or false consciousness [Freire (1970), Midgley (1997)]

Our argument here can be summarised as follows: As the various dimensions or aspects relevant for analysis and assessment of views that enter the conversation, or of the situation the conversation is about, are not unproblematic, given, and obvious, it may well be that one will be blind to some of them unless someone else points them out. Now, in a Team Syntegrity event, the infoset will bring in many dimensions for analysis and assessment of the topics introduced by the opening question. But there is still the issue of how to guarantee that all the important dimensions will be taken into account, such as those that may concern or affect others who cannot participate at all, or do it in a genuine way. If they were so taken into account, the possibilities for learning would improve and so the effectiveness of the conversation and decisions made. Our contention is that there are ways in which this apparent lacking might be at least partially compensated. The following section is dedicated to delineating some elements that could be considered to achieve this.

5. How Team Syntegrity Might Further Improve Learning

We take it that the way of progressing in this direction would be to add certain elements to the Team Syntegrity process that could help participants become aware of other possible relevant questions or aspects. It seems that there is a number of possibilities for this, but they can be thought of either as creating new spaces for critical reflection—which may well be conversational spaces—or as adding concrete elements for critical reflection to the spaces that have already been created within Team Syntegrity. In terms of the second option, one possibility is to make use of the existing role of the facilitators. From the organising team, the facilitators are direct witnesses of the discussions that occur within the teams, and have a certain authority for making the discussants stick to the conversational rules, or restrictions, that are specified by the protocol. Because of that, they might also bear the responsibility for facilitating each team's learning process also in terms of finding ways of overcoming rooted communication barriers, and of introducing other relevant dimensions of content that may be being left out of the conversation. Facilitators would be regarded here, then, as helping to compensate for the lackings in the content resources brought in by the participants. This certainly demands new skills of a particularly critical nature which are different from those presently required from them, and which might be understood in terms of critical facilitation [Gregory and Romm (2001)]. The facilitator acquires new responsibilities for becoming aware of the existing resources for interpretation within the infoset, and for bringing in new resources if necessary for helping the participants identify and address other relevant issues that may highlight previously unquestioned presuppositions. But given that presently Team Syntegrity leaves that all up to the participants, it seems legitimate to ask why one should expect the facilitators to be better able at doing that than the participants themselves, or how facilitators can do this. The idea, however, is that they should have gone through a process of reflection on that, from the very moment of selection of the participants in the event. Because of this, they should have developed a general idea about the various issues involved which are of concern for a wide variety of actors, including of course those whose voice

will not be heard in the conversation. Some conceptual tools might help in this, and other systemic approaches may be an inspiration in this respect. However, it is beyond the scope of this paper to develop those tools.

Alternatively, facilitators might play a slightly different role, but still one of promotion of a critical attitude in the infoset. This time, instead of themselves introducing in the conversation the particular content resources of other dimensions or aspects ignored until then by the participants, they might use critical questions which are not fully-fleshed. (Let us recall the distinction made in section 3 of this paper, between radical and fully-fleshed approaches such as Freire's on the one hand, and those which only establish some generic categories for reflection, such as SSM and CSH). This would push the participants to reflect on the possibility of existence of unacknowledged dimensions or issues, or presuppositions, so that they themselves bring them into the conversation. In any case, this would serve to help participants question the belief systems behind their expressed views, along previously unexplored and unacknowledged dimensions of meaning. And, as active critical learners, it would help them become more responsible for their adoption or rejection of those belief systems. This latter option can be regarded as one in which new conversational rules or restrictions are incorporated into the protocol.

These possibilities just mentioned attempt to make use of the existing elements of Team Syntegrity, to slightly modify some of them in order to produce critical reflection. However, another option is to create new spaces for reflection or conversation within the protocol. In terms of the protocol and required logistic support one option that might be desirable is to have sessions, possibly both at the last team meeting and at the last plenary session, to reflect on the main questions opened or main beliefs questioned, as the result of the development of group consciousness at each level. This can effectively be regarded as an exercise of social awareness, insofar as it helps participants identify their own place as well as that of and the others in the group with respect to their differences and commonalities. Now, this exercise would not guarantee on its own any implementation result after the Syntegrity, but would open a conversational space that might be developed later with proper facilitation and technical support.

We take it that the results achieved by experiencing the methodology with these suggestions would be sounder final agreements in the infoset, on required changes or lines of action; desirable changes in the belief systems; and an experience of participation as critical active learners, guiding their own learning process.

It should be emphasised that in this paper we did not attempt to get so far as to provide specific methodological recommendations that could tackle the issues discussed, in a too detailed way. Instead, we restricted ourselves to formulating general elements that might possibly enhance the power of the Team Syntegrity protocol to promote the learning of its participants. Indeed, we take it that the wider objective of developing methodological recommendations can only be achieved through testing in actual situations of Team Syntegrity practice. That is, actually, the next desirable step in this research project.

6. Final Reflections

It seems clear to us, mostly from our own experience in using Team Syntegrity as a context for developing democratic contexts, that it has the best potential. This paper introduced new questions for improving this potential, focusing on the issue on how to better enhance individual as well as group learning. We must learn to learn both individually and as organised social groups, accepting our restrictions as learners but using the best of our own current expertise as a resource for a

better further learning. More questions coming from this proposal need also further research, like those referring to the required skills for engaging in a conversation and participating effectively, under individual, social, cultural and political restrictions normally happening in the individuals forming the infoset.

In the light of this, our discussion can be seen as an attempt to contribute to give some structure to current academic discussion around these issues, as a way to continue talking about it at this level. More research is required, however, in order to on the one hand refine the conceptual conclusions about language, learning, and critique, and on the other to develop and test our proposals for improving the Team Syntegrity methodology. We hope we somehow opened ways for this kind of research to continue in order to get deeper results and findings.

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