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Rational Ritual: Culture, Co-ordination and Common Knowledge

Michael Suk-Young Chwe
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[Michael Chwe](#) is known as a game theorist among economists. In this book he explores a new field at the border of his previous work and related to the study of co-operative games. For him, the issue of co-ordination among humans is central, and one aspect of it is to understand how humans can share knowledge. The book addresses the issue of common knowledge formation, first demonstrating its centrality to an explanation of co-ordination processes among humans, and then discussing a number of examples taken from both large societies and small groups. The book could thus be a step on the way to bridging the gap between very theoretical approaches to interaction and empirical sociological observation. Chwe's references are either in sociology and computer science or in social psychology. They sometimes seem close to citations that can be found in JASSS papers: Schelling, Sperber and Wilson.

The first part of the book deals with common knowledge. Common knowledge has to be distinguished from the sharing of information. It exists only if several humans share a piece of information, are very conscious of the fact that they share it, and know that the others are aware of their consciousness. Chwe presents some examples of what a co-operative action might be. In such a case, the interest of individuals is not defined by the action itself, but by the fact that the action is carried out jointly. If direct communication is impossible then individuals must be aware of the extent of knowledge in others and trust them to act according to that knowledge. A meta-knowledge about the relation is needed. It includes a never-ending list of statements about "knowing". "I know, and I know that you know, ... and I know that you know that I know..." Several examples are developed to show the difference between sharing information and having common knowledge in everyday

situations.

One example is very trivial and concerns friends on a bus who want to stay together and have the opportunity to get out of the bus to meet a third friend that both of them like. It is difficult for them, then, to know which decision to make - stay or meet their friend - if they cannot make eye contact.

Another example is related to the question of mass rebellion and legitimation and thus seems a bit less trivial. It describes a society where each individual sees the size of loaves decreasing slowly but where no one dares say it publicly. The difference in loaves is very subtle each time and nobody knows if they are mistaking or not. Even if it is true that the loaves *are* shrinking, nobody is sure they are not alone in noticing. If one complains alone, there is a risk of being taken for a fool, which makes any public claim too costly. In this example, if the price of the loaf was increasing (instead of its size decreasing), the individual would be sure that their perceptions were right and they could co-ordinate with the others to act upon the bread producer.

Chwe's main interest is thus to make explicit some processes that are used for the generation of common knowledge, mainly in public actions and mass communication. He acknowledges what he considers a more classical view of group identity, in a tradition that tries to depict in common action the representation that a group forms of itself. (In this context, he cites Geertz and his definition of culture as a "socially established structure of meaning"). But Chwe wants to go further. His question is how people can decide that what they experience is indeed shared with others and can thus form the basis of a new understanding about the world. A symbol needs a context to be understood, but most of the time context and actions are mixed together, and to diffuse a new idea, the medium itself has to be new. Chwe chooses some examples to make his point and to show what expectations and beliefs can arise about the knowledge of others.

In the French Revolution, common action was not just a representation of power but was the reality of power. Following Polanyi, Chwe shows once more how much submission is a matter of information. If I know that others want to act with me, it will be easier for me to fight against the law. On that point, he dismisses Scott's point of view on carnival and states that this time of year is not used to release pressure on humans but to ensure that others still think the same way as us even in "deviance".

Chwe describes different ways for one individual to be sure that everyone else has perceived the same information. First, the general spreading of an element in everyday life can produce common knowledge. Repetition is another way of being reassured about the perceptions of others. If I don't see the whole ritual (or hear the whole song) the fact that I know it by heart already (like anyone else in the group) helps me to know what has happened to the others when I wasn't there. It is not by chance that a lot of rituals take place in circular settings where everyone can have eye contact with anyone else at every moment. This arrangement makes sure that there is a common perception. Such eye contacts are then analysed in a very deep way using several scenes from the film "On the Waterfront" by Elia Kazan, which tells the story of workers who co-ordinate to fight exploitation. For Chwe, Bentham's way of conceiving a prison with absolutely no eye contact between prisoners sustains his argument and he presents a brief critique of Foucault's arguments on that topic.

Some aspects of everyday life that can affect the generation of common knowledge are then studied within this framework, particularly advertising. The first campaign selling a drug that helped cure bad breath was very important in America. For the first time, the question of bad breath was addressed publicly in the country and it led everyone to the consciousness that personal hygiene was a real social

issue. The campaign legitimated the fact that one should take care of one's own bad breath. For Chwe, the effect was not so much the creation of a new issue in the country (and thus a successful campaign that sells the good) as the revelation of a problem that was intimate as well as public. From that moment on, anyone knew that everyone knew and hence had a way of effecting a cure. The isolation of an individual who would not dare to think that bad breath was a problem was broken and turned into an obligation to have good breath.

In other cases, externalities can be clearly identified in the diffusion of the good. If a car is generally sold, services are going to be easier to find and cheaper. If everybody knows a beer, it is better for me to have some at home, even if I don't like it, because my friends have a high probability of liking it. The Macintosh computer, which was not compatible with PC at that time, took extensive advertising during the Superbowl, the most popular show in the USA. Anyone would then know that a huge number of buyers had seen the same ads. TV is indeed the best place to exhibit advertising that has an impact on the social life of the general public because it is not customisable. This means that people know that others have necessarily had acquired same knowledge that they did. Chwe then provides a good test to check if his hypothesis is valuable. If it is right that goods with a public impact need common knowledge to be attractive, and if it is right that TV is the right medium for that kind of advertising, then "social" goods should be publicised more on TV than other types of goods. The criteria Chwe takes are the number of ads paid for by the company and the total cost (relative to the time for which it has been displayed). Analysing his results, Chwe presents a short discussion about the nature of social goods and male and female advertising. He also deals with a few examples bearing on the coherence of his approach.

One can see throughout the book that Chwe has definitely decided to associate the word "ritual" with a space in which common knowledge is created. The third part of the book is an attempt to criticise his own point of view and find alternative interpretations of common knowledge formation or of the function of rituals. An alternative hypothesis is mainly naturalistic and physical: participation in a ritual creates a trance that is comparable to an orgasmic feeling and thus associates pleasure with the presence of others, creating the feeling of a group. But that idea is not relevant in explaining the appearance of group feeling through TV advertising, where the idea of sharing is more abstract than just having physical proximity.

Some people deny the existence of common knowledge in general. These critics state that it is a cognitive impossibility for humans to use an infinite chain of induction to know what others think. It is true that even in some very basic settings where communication is based on eye contact, there is a need for one human to know what kind of image they are producing, so that they know what others are reacting to. In video conferencing, it is not enough only to see the other. Each person also needs to see the image that the other gets. They need to know what the other reacts to and thus get some insight into the basis for perceived attitudes. If common knowledge is not important at the start of a relationship, it is nonetheless crucial when the relationship has to last. Going back to the example of political submission shows that common knowledge generation is an important power issue and that it really has to be taken into account. Chwe's last example is about the events in Leipzig during 1990. Here a few people were engaged in small demonstrations every week. On the day when a huge population wanted to get involved in the protest, they all went to that meeting in a spontaneous way and "common knowledge" turned into "group identity".

At the moment, there is an important trend in game theoretic research attempting to identify the processes that could lead agents to choose between equilibria when there are several, or that could

explain why certain outcomes are not chosen despite their optimality and are instead abandoned for sub-optimal outcomes. Answers to these puzzles are to be found in diverse ways in which humans use information. These procedures can either make them act in non-rational ways or limit their use of information because of the importance of routine. For example, Bowles and Gintis (2000) try to investigate the diverse equilibria that can appear in groups of agents with diverging interests when these agents can learn but cannot change their modes of behaviour universally.

Eventually, in his conclusion, Chwe admits as a very interesting question the nature of constraints that affect agents engaging in rational choice. To approach the question of rational choice at all, one has to think about how people infer the knowledge of others. One could say that Chwe wants a theory that combines a complex social rationality (which he calls "community-based reasoning") with individual rationality, instead of simplifying one of them. Chwe criticises two other approaches that are currently proposed in game theory to solve the problem of choice between alternative equilibrium. Some researchers use dynamic processes of adaptation (evolution and selection) to reduce the requirement for hyper-rationality, since this puts the choosing agent into an fluctuating environment where being adapted is more important than being theoretically optimal. Others use the idea of focal points in a particular culture (like a well-known station for a meeting). Chwe dismisses both hypotheses on the grounds that humans are not animals and that they have to produce society in a conscious way so that they are able to manipulate it. For that reason, Chwe further acknowledges the fact that reasoning is in any case linked to the emotions and that the converse is also true, as Damasio would argue.

The approach of the book is really interesting and I find the author quite successful in his overall attempt to link rational individual behaviours (choosing the best action to attain a goal) with some that (like rituals) look *prima facie* irrational. The demonstration that rituals are rational at a meta-level is quite convincing, since they prove necessary for certain actions to be undertaken in the first place. This approach draws attention to the existence of two types of rationality. There is one type operating at the level of society in the building of common knowledge. It takes place through the action of humans but is not related to their obvious interests. The second type operates at the level of the individual who manipulates common knowledge and acts with a more recognisably classical and individualistic rationality.

One could reproach a few things in the book, not so much that it lacks rigour, but that it creates some minor frustrations in the reader. As we have seen, in his analysis of events throughout the book, Chwe refuses to care about symbolic elements and thus never considers pre-existing symbols of cohesion that societies exhibit.^[1] By trying to analyse everything as "useful" in the organisation of common knowledge and verifying the perceptions of others, Chwe seems to forget that any way of acting together takes place in a larger context, where only some (perhaps rather few) actions can be perceived, understood and repeated by the others. Even in the case where new communication channels or common realities are created, there are cognitive constraints that remain for individuals facing a social situation. To my mind, Chwe thus misses a very important explanatory aspect, the historical dimension, in the evolution of a social system. For this reason, he is condemned to explain *ex post* any of his observations and cannot be sure that he has exhaustively covered the whole corpus of relevant facts.

Another possible source of frustration is his very strong view on submission, which can be seen as very radical. He states that rituals which create common knowledge "reveal" ideas and wishes to humans who did not dare perform an act because they thought they were "on their own".

The example about bread seems to be very apposite to sustain that idea: an important way of manipulating people, used by most food producers, is to find the right equilibrium between constant repetition and small change, so that customers are never sure that they evaluate things correctly. That type of research is also conducted by hotel chains around the world who want to exhibit regularities (so that people who travel a lot feel comfortable in a "moderately known" environment) while expressing enough of the exotic at the same time. But in the context of the book, if the assessment of the cognitive problems that common knowledge can erase is correct, I have a problem in seeing how it can justify Chwe's analyses of rituals.

The idea that Chwe takes from Polanyi - humans don't revolt because they don't want to be the only ones and cannot evaluate what the others think - is interesting. However one could object that there exist numerous ways of organising communication to check what others think. In everyday life, most obviously, by asking people questions.^[2] Most active sub-groups (like militants or spontaneous associations in neighbourhoods) do not need to be numerous in order to create a group for action. They find people with whom to organise locally, and it is clear that humans in everyday life go to events and places precisely in the hope of finding others with the same inclinations. Chwe mainly describes common knowledge generation as an emerging phenomena that reveals preferences that were hidden, and not as a rational action by a few individuals to transform the point of view of others. For me the creation of meaning is much more consciously led and consciously received than it is in the view which Chwe develops.

There is another point is not really addressed, but could be related to the link which Chwe makes between emotions and rationality. I would say that the analysis that Chwe presents here is too dependent on the hypothesis that people belong to one "society". He doesn't look at the multiple opportunities we have in contemporary life to choose our group. The need which people have to belong to groups is articulated in terms of the ability to choose the common knowledge they want. Maybe it would be interesting to consider how diverse communities can be created and how the choice of a certain rationality (that one will necessarily use afterwards) is connected with emotional states.

In pointing out elements of reality for which Chwe's approach is not totally relevant, I want to express simultaneous frustration - I sincerely wonder how one could co-ordinate his approach with that of others - and recognition of the great coherence of his work. The whole book is dedicated to an analysis of a part of human action that is creative rather than reproductive; that creates new frameworks of social expression, rather than uses ready-made symbols. His apparent refusal to recognise history is mainly an attempt to look at means of collective innovation, a topic that is not often addressed in social sciences and even less in game theory. In the economic style, Chwe just goes as far as he can in applying his point of view to all events. One can hope that the next step will be an attempt to link both approaches into one: adding his views about group strategy trying to build itself as a community to views about individuals choosing their own community and their action within that frame. One could imagine that to sustain the imagination in this endeavour, multi-agent social simulation could be used. That is why I thought it could be interesting to review this book for JASSS.

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 **Notes**

¹ In linguistic terms, one would say that he is only interested in the performative function of sentences.

² This also seems to be what we do in everyday life: people exchange comments about TV shows or any kind of event they witness in order to see how the others understand them.

 **References**

BOWLES S. and H. Gintis 2000. The Evolution of Strong Reciprocity. [Working Paper Number 00-12-072](#), Santa Fe Institute, Santa Fe, NM.

[Return to Contents of this issue](#)

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