

Bratman's Shared Cooperative Activity and The Nature of Joint Action

Introduction

What is a *joint action*, or in other words, *collective behavior*, *shared agency*, *cooperative behavior*? Although different terms might bring differences in meaning about the kind of action; joint action is, independent of how we call it, one of the most important (if not the most important one) characteristic aspects of human beings. We do involve in joint actions and some researchers argue that lots of cognitive abilities evolved because we act cooperatively, maybe even self-consciousness is the result of our abilities of joint action, if we take mindreading and goal ascription as related abilities. However, the nature of joint action is not so easy to point out and at least in philosophy there are lots of disagreements about it's nature; a) whether it should be based on a notion of shared intention (and what kind of shared intention), b) whether we should present an individualistic or supra-individualistic account, i.e. whether the shared intentions and the groups are sum of individual intentions and individuals or we need to postulate we-intentions and plural subjects as different kind of entities/notions; c) whether we should have an minimal account not too demanding or a maximal account taking joint action a complex activity with demanding necessary and sufficient conditions; and d) whether we should really have a different explanation of joint action in addition to our explanations of individual action (which is itself not without problems that we should make the role of intentions, beliefs, desires and goals in action clear and also define what action is, in contrast to mere events, which is similar to the question whether our account of shared intention should be reductive in nature. Empirical sciences is also interested in joint action, in terms of its ontogenetical and phylogenetical development, to see what kind of abilities are necessary for joint action, how it works and when it emerges in different species and in human beings from birth till they become adults.

In this paper I will try to understand the nature of joint action by determining its distinctive features and by presenting its necessary and sufficient conditions. With this aim, I will look to Bratman's account of joint action in "Shared Cooperative Activity", by using

his criteria for joint action and examples for discussion to reach to an account of cooperative activity. As it is the case in many topics in philosophy, most of the questions about joint action are interrelated with strong ties and it is hard to answer one question in isolation. If our aim is to give an account of joint action, our job is even harder. Bratman's argumentation will be helpful in this direction, as he tries to give a general account by going through a complicated but precise reasoning blocks. The features he presents as characteristics of joint action and the cases he uses as examples constitute a good ground for a fruitful discussion, with which an account of joint action might be constructed.

A discussion on Bratman's Shared Cooperative Activity

Bratman's main focus in this paper is the joint action between a pair of participating agents, rather than behavior of complex institutions with structures of authority, which is a good choice to understand the essential elements of cooperative behavior. However, leaving *corporate actions* like a "nation declaring war or a government taking legal action" against a company aside, one can miss distinctive elements of joint action if one avoids group actions working under someone or a few of people, who act as leaders and let other people share the intentions they mostly construct individually.

Another type of action which is left out is actions involving more than one agents, like someone painting a house together with another person without knowing other's activity or not caring about other's intention. **(Ex.2)** This is another point which might not so easily be left out, as one might still be able to make a distinction between coincidentally joint action and intentionally established joint action; like between the people performing a flash mob in metro by simultaneously reading newspapers **(Ex.3)** and the alternative scenario where they are reading newspapers simultaneously, but this time just with the sake of reading newspaper and not having any other goal or knowing that others are reading their newspapers for the sake of reading or being part of a flash mob **(Ex.4)**. I am not so sure whether Bratman would so easily leave Ex.4 out as he treats Ex.2. It is true to say that just having a structure like joint action does not make an action joint action, if an action is not done collectively, which necessitates more like shared intentions, common goals, etc. However, Bratman does not presuppose that shared intention is the main condition for joint action, and in this sense I think it is a quick move just to say that there is no joint action in Ex.2 and Ex.3, because the main difference seems to be about whether there is a shared intention and/or common goal (and the knowledge of the presence of

these intentions in others' minds), which are explained later with other arguments by Bratman. The problem becomes more apparent, if we try to consider the status of a particular person in Ex.2/3, whether he is acting as part of the flash mob or just reading newspaper. It cannot be determined apparently and one needs to rely on some criteria to find out the case about her. Searle gives a similar example when he presents an imaginary case where a group of people are sitting on the grass and they just run to the common central shelter when it starts to rain (**Ex.5**)¹. It is contrasted with the same apparent event, where the people sit on the grass and run to the same shelter, but this time as doing this as part of an outdoor ballet performance (**Ex.6**). If their bodily movements are indistinguishable, the difference is not observed externally but by considering different intentions present in two situations.

To make the problem a little bit harder, one can ask for a random person in metro to read a newspaper with some reason, who, by reading the newspaper, unintentionally makes the flash mob happen. If it is also the case about all the other newspaper readers that they do not know that they are part of a flash mob but someone plans it through letting these people read newspaper, can we say that there is a joint action of flash mob? Someone might want to create a modern dance performance, which is unpredictable, by making it artificially rain on the people on the grass, to make them run to the shelter, which we take as a case as a version of Ex.6 (**Ex.6b**). If no one running to the shelter actually knows that they are part of the performance, would it be a joint action? Pacherie says that Butterfill has a minimalist view, which enables labeling these actions as joint actions: "In his view, agents participating in a joint action need not be aware of the jointness of the action, need not be aware of the other contributing agents as intentional agents, need not therefore act in part because of their awareness of jointness and of other's agency, and finally need not be aware of the other agent's attitudes toward the joint action."²

We have a similar but different case between *parallel agency* and *shared agency*, between two persons walking together on the street (**Ex.7**) and two friends walking together on the street (**Ex.8**). Again, the common sense would say that the latter is joint action, while the former is not. However, we have a more difficult problem here than the one in previous examples. Firstly, an important part of what cognitive psychologists study as joint action is the effect of people on others' actions (mostly) through shared motor

¹ Searle, p.90

² Butterfill in Pacherie, p.175

representations; and they have a point here. One cannot really escape from not coordinating his steps to the steps of the other one, to arrange his actions according to other people present in their perceptual space. So, even if one does not have the intention to involve in a collective action, this does not mean that they have isolated individual behaviors. So, we have a kind of joint activity also in Ex. 7. Of course one should be careful not to broaden the spectrum of joint action too much so that we lose the distinctive property of jointness of joint actions. However, in this way we might be drawing a distinction between genuine joint action and joint action, and this distinction might not be a valid one.

Now we will look to the main features taken to be necessary and sufficient for joint action by Bratman, about some of which we have already started to talk by looking to previous examples. Michael Bratman presents *mutual responsiveness*, *commitment to the joint activity* and *commitment to mutual support* as three necessary (and taken together and also with the additional premises to constitute the sufficient) conditions for *social cooperative agency*:

(B1) *Mutual responsiveness*: *In SCA each participating agent attempts to be responsive to the intentions and actions of the other, knowing that the other is attempting to be similarly responsive. Each seeks to guide his behavior with an eye to the behavior of the other, knowing that the other seeks to do likewise.*

(B2) *Commitment to the joint activity*: *In SCA the participants each have an appropriate commitment (though perhaps for different reasons) to the joint activity, and their mutual responsiveness is in the pursuit of this commitment.*

(B3) *Commitment to mutual support*: *In SCA each agent is committed to supporting the efforts of the other to play her role in the joint activity. If I believe that you need my help to find your note (or your paint brush) I am prepared to support me in my role. These commitments to support each other put us in a position to perform the joint activity successfully even if we each need help in certain ways.*

Bratman starts by saying that the first condition is not sufficient to establish a joint action, giving the example of opposing soldiers **(Ex.8b)**, who are trying to be responsive to the actions of the other and knowing that the other is acting in the same fashion, while there is no commitment to the general joint activity of ‘fighting’ and no tendency to help to the other if needed. He does not spend more than two paragraphs on this condition, which, I think, might leave some cases vague in terms of joint action. I do not think that opposing soldiers is the best example to discuss a case with

B1 without B2 and B3, because it does not have proximity to a joint action. Here we have an action done together by two subjects where responsiveness is present, but such kind of responsiveness is present nearly in all layers of our interaction with the world. So it is not an interaction particular with the social agents. A battle with a more strict rules, where armies obey to the rules and make war with some obligations, might be a kind of collective action, but mostly it would be a little bit strange to discuss joint action through war and fight. What kind of collectivity is between a murderer and the man who is going to be killed; between a hunter and his prey? The case is similar in opposing soldiers and except some particular forms of war, it doesn't help us to take such an example to test B1. Of course Bratman presents this example as a non-joint action, but what I mean is that this example is not particularly helpful to understand the distinctive nature of joint action, which is also the aim of Bratman³. In this respect, it would be more enlightening to look to chess players **(Ex.9)** and tennis players **(Ex.10)**. Are chess players involved in a joint action? They definitely fulfill B1 and they also commit themselves to this activity (B2), but there is no commitment to support each other (B3). It is against the nature of these particular activities (Ex.9-10) that they support each other. So, are these activities fail to be collective action because their lack of B3? I think there is more why they are not collective actions, to which we will return after discussing other points.

Second necessary condition for a joint action is 'commitment to the joint activity', which involves in part an "intention in favor of the joint activity".⁴ The reasons for these intentions should not be the same, but any agent in a joint action needs to have an intention for joint action. At this point, Bratman makes a distinction between *cooperatively loaded joint-act-types* and *cooperatively neutral joint-act-types*. Whereas the latter type of action is not necessarily cooperative, the former is already bringing the idea of cooperation with it. **Ex.2** is an example of cooperatively-neutral-joint-act-type, as it can be exercised either cooperatively or individually by multiple subjects without doing a joint action together. Bratman wants that his account relies on cooperatively-neutral-joint-act-types so that it would not be circular, which would be the case if his theory of joint action would be based on shared intentions, which already rely on the idea of joint action (as being defined as shared). Elisabeth

³ Bratman (SCA), p. 328

⁴ Bratman (SCA), p. 329

Pacherie also emphasizes this point in Bratman's argumentation by pointing out to one of Bratman's necessary conditions for shared intention that it needs "intentions on the part of each in favor of the joint activity".⁵ She says that "the concept a joint activity that figures in the contents of the intentions ... should be understood in a way that is *neutral* (italics by me) with respect to shared intentionality."⁶ It should be noted that here we have the same approach from the other way around: Bratman wants to give an account of shared intention and he does not want to rely on a notion of joint action, which already presupposes the notion of shared intention. So it is clear that this distance between shared intention and joint action is very crucial in Bratman's theories of joint action and shared intention. This means that we should not use a concept of shared intention which is not neutral in respect to joint action. It is still important that subjects have intentions to act cooperatively and it is not enough to constitute a cooperative action without having cooperatively-neutral-joint-act-types.

Although it is necessary that subjects commit themselves to the joint activity, they should also have *meshing subplans* and *interdependent intentions*. In this direction Bratman presents additional necessary conditions:

(B2)1ai : I intend that we J.

(B2)1ai i: I intend that we J in accordance with and because of meshing subplans of 1ai and 1bi

(B2)1bi : You intend that we J

(B2)1bii : You intend that we J in accordance with and because of meshing subplans of 1ai and 1bi

(B2)1c : The intentions in 1a and 1b are not coerced by the other participant

(B2)1c2 : The intentions in (1)(a) and (1)(b) are minimally cooperatively stable.

*(B2)2 : It is common knowledge between us that 1.*⁷

The subjects should have their shared intentions (cooperatively neutral) in accordance with subplans, which should mesh with the subplans of others. Accordingly, when I want to paint the house red and you want to paint it blue, and

⁵ Bratman in Pacherie p. 179

⁶ Pacherie, p. 179

⁷ A similar account is given by Bratman about shared intentions in "Shared Intention":

We intend to J if and only if

1. (a) I intend that we J and (b) you intend that we J.

2. I intend that we J in accordance with and because of 1a, 1b, and meshing subplans of 1a and 1b; you intend that we J in accordance with and because 1a, 1b, and meshing subplans of 1a and 1b.

3. 1 and 2 are common knowledge between us.

when we have the intention to act cooperatively, we would not have a joint action in the end, if we would have a house in the end, which is half blue half red, as this action is not done according to the shared intentions, which include meshing subplans.

(Ex.10) This does not mean that the subjects should agree exactly about their subplans, i.e. they do not need to have exactly determinate and same subplans before starting to act. What is meant is rather that they should constitute their subplans in such a way to execute the plans without violating either of the subplans. Bratman says that in this respect there can be a cooperative activity in the following case: a house is painted with an inexpensive paint bought from Cambridge Hardware, where one subject prefers expensive paint (but does not care about where to buy it) and the other one wants it to be bought at Cambridge Hardware (but does not care about the price of the paint). **(Ex.11)** The only difference between Ex.10 and Ex.11 is that in Ex.11 the subplans could mesh, which makes it a SCA (social cooperative agency). It is a little bit strange that the later phase and/or the consequence can make an activity cooperative or not, while Bratman emphasizes intentions, which emerge at a prior stage in time, before the action starts. However, Bratman seem to think that the differences in action and the consequence show the differences in intentions that in Ex.11 the subjects had looser intentions in a way, or intentions with a diversity making different subplans possible to work. It still creates an epistemological problem that we can again understand what the intentions of subjects really are only after the action starts. So, in Ex.11, as action develops, differences in subplans might emerge, which are not planned, like when to paint, what kind of painting method will be used, etc. In such cases, the intentions would be determined afterwards.

Considering these points, Bratman's account might be too demanding in terms of the degree the intentions are determined. On the other hand Bratman doesn't make the move from the claim that 'there should be intentions with meshing/meshable subplans' to 'there should be subplans that do in fact mesh', where the latter would be easier as this would dismiss the problems occurring after the action starts. The reason for this is that in that case lots of joint actions would be dismissed as there might be different contrary subplans to occur in the process. That's why Bratman structures his condition as a 'commitment'. We form intentions to J (involve in a joint action) and we form some subplans, where we hope that our subplans mesh, but also we commit ourselves to make our subplans mesh with others, which includes

attempts to realize a joint action, and maybe even some sacrifices of some of one's subplans. These are the reasoning behind '1a' and '1b' that although we might not know the details of the subplans of the other, we should intend that our subplans will mesh whatsoever they may be.

This does not mean that one needs to accept any sub-plan of the other only because he committed himself. He should be 'willing to accept the subplans of the other' and should not be forced accept that. If a gangster puts a gun to John's head and says that they are going New York together, this would not be a cooperation, as the gangster bypass other's intention. **(Ex.12)** Cooperation occurs between subjects who treat each other as intentional agents⁸, so there is no joint activity in Ex.12. For Bratman, it is possible that the gangster gives to John the option either 'to intend to go with him to New York' or that 'he pulls the trigger'. **(Ex. 12b)** Bratman thinks that this is a different case as the intention of John is respected. This is the reason why he adds the premise '1c' that there should be no coercion. I do not think that these nuances are that much relevant for joint action, as Ex.12 also seems to be a joint action, if we translates this example to a dance performance. The gangster might force a dancer to dance with him, and if they are both good dancers, how can we say that there is no joint activity? **(Ex. 13)** Bratman relies too much on intention and non-bodily and extended joint actions, which are constituted by planning and decisions. However, there are more bodily-structured joint activities, there long-term intentions do not play that much of a role. In this sense, it seems a little bit strange for me to deny jointness of Ex.13.

The last criteria Bratman brings forward is the commitment that one is prepared to support the the other and provide help if needed. He takes it as a minimal condition, not to demand a strong commitment for help in any condition, but rather in possible relevant cases, supposing that the other does not change his intention to a great degree. So, the possibility of help should not be the result of one's change of intention, which was not estimated from the other. Bratman presents the further sub-premise '1c2' in this direction that the intentions of the subjects should be minimally cooperatively stable. This ensures that the subjects know the relevant possible cases and help might be needed and this premise also helps to deal with changes in

⁸ Bratman (SCA), p. 333

subplans, making the intention to mesh one's subplans with other's subplans less problematic.

In addition to all of these necessary conditions, Bratman adds a "connection condition" that our attitudes should be connected to our J-ing.⁹ This condition works via B1 (mutual responsiveness) and connects all the attitudes specified in B2 and its sub-points to the joint action, so that that action counts as a cooperative activity. This mutual responsiveness is *of intention* and *in action*, which (distinction) is important to distinguish SCA from *prepackaged cooperation*. Prepackaged cooperation is an activity preplanned in advance, i.e. there is only mutual responsiveness of intention. All the intentions and roles are determined but then there are no further interaction between the subjects. For Bratman, this is not a SCA, as in SCA there should be mutual responsiveness in action, which connects all the remaining necessary conditions to the performance of joint activity.

I find mutual responsiveness in intention important and I also think that what makes an activity a joint action is the mutual responsiveness both of intention and in action. However, we should acknowledge that what makes mutual responsiveness in action possible is the planning, determination of roles and training, thus mutual responsiveness in intention. In this sense, we can even emphasize the role of prepackaged-ness as the distinctive feature of joint action.

Concluding remarks

As Bratman explicitly states, his account is individualistic "for it tries to understand what is distinctive about SCA in terms of the attitudes and actions of the individuals involved", and also reductive.¹⁰ His main aim is to reach to a noncircular account with an emphasis on interdependence of intentions. Considering all these elements of his theory, individualistic and reductive elements are not discussed in this account particular but rather form the basis for his reasoning, while they are crucial for any theory of joint action.

Bratman's theory is individualistic as it relies on the intentions of subjects, rather than a form of '*we-intention*', or in other words, it explains the joint action through subjects, rather than plural subjects. In a parallel fashion it is also reductive as it reduces we-intentions to individual intentions, so that the joint action is

⁹ Bratman (SCA), p. 339

¹⁰ Bratman (SCA), p. 341

explained through the relation individual's intentions, rather than through the nature of non-reducible group-intentions. The reason he does not explain joint action by relying on a cooperatively-neutral-joint-action-type is similar that he does not want a circular theory, i.e. our theory should not rely on shared intentions which are different from individual intentions. However, these are important suppositions, which are disputed.

Searle is one of the philosophers giving a non-reductive account of joint action arguing that "collective intentional behavior is a primate phenomenon that cannot be analyzed as just the summation of individual intentional behavior".¹¹ I think that by accepting that a theory of joint action should be individualistic, reductive and working through cognitively-neutral-shared-intentions already dismiss lots of important questions about collective behavior, which are not only about commitments, responsiveness and interdependence of intentions. The reason why Bratman focuses on these issues too much is that once he starts from a individualistic intentions and planning, it is hard to explain through them the later occurring shared-intentions, which should not be different from the starting individual intentions. It is hard that all the intentions and planning continue to exist till the end without losing their explanatory power on joint action. In that respect he presents the criteria about commitment and responsiveness by leaving the subplans and intention not so determinate. He ends up giving lots of premises with details, making the occurrence of a joint action difficult in practice, which should actually be easier to perform.

It might be expectable that one experiences all of these problems, because it is not the right way to approach joint action. One of the most important features of joint action is that a kind of system is constituted, which acts like a plural-subject. This is what amazes us in lots of examples of joint action, which are better examples of collective activity and their features can be taken as distinctive features of joint action: Dancing couples in a championship, circus member performing dangerous moves, the players of a good football team, etc. Our account of joint action should be able to explain such performances which involve quick and difficult sub-actions, rather than actions extended in time and including not much bodily actions. The examples Bratman use are mostly about determining the aim, planning how to do it, making some decisions, committing oneself to make this joint action happen, etc.,

¹¹ Searle, p. 91

which cannot catch some of the important features of joint activity. In a football team, what is most important is not sharing intentions, but 'constituting' some sub-intentions together. Of course nearly all of the necessity conditions Bratman presents are also present: The players know that they constitute a group together and going to involve in a joint action, they are responsive to each other's intentions, they commit themselves to help to each other to reach to some common goal (to defeat the other team). However, it is not important for example, that mafia puts a gun to a player to play in that match. It doesn't change anything important about the collectivity of that match, in so far as that player is able to play as part of the team. It might be the case that his intentions is bypassed or coercively constituted, and there is the risk that he can quit so that there is not real commitment, but there is never such a commitment in any area of life that one will not stop acting collectively no matter what happens.

The joint activity seems to be something particularly about the 'actual' action, rather than determined by the intentions and commitments. And if we look to the actual action, insofar as the group acts as an agent, as if it is an individual, we have more successful joint action. In that respect, it is also a good idea to focus on the we-intention, rather than on the relations between individual intentions. That's why I said that intentions are constructed rather than shared. Contrary to Bratman, who focuses on the intentions determined before the action, we should also look to the sub-intentions occurring during the action. Bratman talks about the possibility of changes in intentions and about the meshing of sub-plans through the action, but it is more enlightening to talk of sub-intentions rather than sub-plans. Individuals constantly produce new intentions to reach to the starting intention and to the main goal, and it is important for a joint action that these are common among subjects. This is mostly done through a more dominant subject who determines the new sub-intentions (or sub-plans in Bratman's account), to which other subjects accord, so that there is a one-way sharing from the leader to others; or a common intention is constructed, which does not necessitate sharing of intention among members. The relation between individuals are pre-determined (whether there is a leader or not), so that there are commitments like presented by Bratman, but even if these are made beforehand, what makes that action joint action is that the subjects can 'understand' the intentions of others (mostly of the leader) in addition to being responsive to the

intentions of others; or their collective ability is so good that it is by itself determined how to act, as the action develops.

Understanding one's intention, rather than being responsive to it, is important, because it works in human beings mostly through 'shared motor representations' and it is no surprise that most of the empirical studies on joint action focus on this topic and on how we are able to understand the goals and intentions of others so automatically, even to the degree that we are unconsciously effected by the intentions of the other. Because of the stimulation of other's actions in our mind as if we perform that action, we can understand the other's recent intentions and respond so quickly. That's why joint action should not only be understood individualistically and through the commitments, but through the mechanisms making we-intentions possible.

Knoblich and Sebanz have an important point in this direction when they say that "the contribution of lower-level processes to social interaction has hardly been considered. This has led philosophers to postulate complex intentional structures that often seem to be beyond human cognitive ability in real-time social interactions."¹² Bratman takes joint action through a more complex mechanism than it is in our lives, making it difficult for us to establish action collectively in real life situations; and also with an individualistic approach, it becomes a difficult job to explain theoretically 'successful' joint action, which happens in practice. However, one should also be careful not to have a too minimalist account instead. Accepting that social interaction is present starting with low-level processes is not an explanation for cooperative action either. We are always in interaction with our environment and all the objects in our perceptual field have effects on a low-level so that we are automatically responsive to such objects. If we explain our interaction with other agents also in the same way we explain our interaction with the world (and objects which are not agents), this might not be an explanation about the distinctive features of joint action and thus not a good account of joint action.

¹² Knoblich and Sebanz , p. 2022

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