

A Conceptual Analysis of Joint Action: Experimental Approach

1 Characterizing Joint Action

Accurately determining what it is that distinguishes collective agency from other similar phenomena such as group agency or parallel action, has been proven to be a difficult task. Philosophers' conceptual analyses have been unable to provide a standard account of the necessary and sufficient conditions for a phenomenon to count as a joint action. This is partly due to the vast number of hypothetical cases this commonly used notion encompasses and partly due to the diversity of ways in which we can portray joint action as distinctive. It may have particular phenomenology, involve a shared intention, a share commitment, etc. We think that investigating people's pre-theoretical intuitions regarding joint action can shed some light on the issue and possibly offer a standard against which we can measure controversial cases. In order to do this we have designed an experiment that aims at answering the following questions:

1. What situations do people unacquainted with the collective agency literature judge as joint actions?
2. What elements play a role in their decisions?

2 A Metaphor: Differential Diagnosis

Symptoms					
Authors	Completion by others (sufficient)	Commitment (necessary)	Cooperation (necessary)	Intentionally started (necessary)	Common knowledge ¹ (necessary)
Baier	Yes	-	No	No	No
Blomberg	No	No	Yes	Yes	No
Bratman	No	No	Yes	Yes	Yes
Gilbert	No	Yes	Yes	Yes	No ²

¹ Common awareness that we are engaging in a joint action.

² It is unclear whether Gilbert's account requires common knowledge.

The table above contains the elements that according to different philosophers distinguish joint actions. We will try to determine which of these play a role in people’s decisions and the weight they have on them. They are labelled ”symptoms” because we believe the cluster of people’s pre-theoretical intuitions can provide us with an appropriate etiology of joint action even if we are unable to find necessary and sufficient conditions.

3 Vignettes

1. Helen goes into the kitchen with the intention of making herself a cup of tea. Once inside the kitchen she sees Lucy and proposes her to prepare tea together. Lucy agrees and boils the water whilst Helen prepares the tea bags. Each one plays their own part and they successfully make tea.
2. Helen goes into the kitchen with the intention of making herself a cup of tea. Once inside the kitchen she starts boiling water. However, the phone rings in the living room and she leaves the kitchen to answer it. Lucy enters the kitchen and sees the hot water. She decides to make some tea with the hot water, prepares it and drinks it. Helen had forgotten about her tea.
3. Helen goes into the kitchen with the intention of making herself a cup of tea. Once inside the kitchen she starts boiling water. However, the phone rings in the living room and she leaves the kitchen to answer it. Lucy enters the kitchen and sees the hot water. She realizes that Helen had begun preparing tea so she decides to finish making it and leaves it in the kitchen so Helen can drink it. Helen had forgotten about the tea.
4. Helen goes into the kitchen with the intention of making herself a cup of tea. Once inside the kitchen she sees Lucy and proposes her to prepare tea together. Lucy agrees and boils the water whilst Helen looks for the tea bags. Each one plays their own part in order to make tea. However, they cannot finish preparing the tea because there are no tea bags so they decide to abandon their plan.

4 Designing the Experiment: Method

We have used Starman and Friedman paper *The folk conception of knowledge* (2012) as a template for our experimental design. The experiment will consist in presenting the participants with different vignettes (see section 3 for a sample). After reading them, they will have to judge whether the situation described is or is not a joint action. In order to rule out the possibility that participants respond without fully understanding the situation, they will be required to answer a set of comprehension questions as well. Finally, after deciding whether something counts as a joint action, they will have to answer a confidence question in the

form of a Likert scale from 1 to 10. After the experiment, participants will be asked to answer a short demographic questionnaire.

4.1 Questions

These are the potential questions that the participants will have to answer (always in the same order):

Do the agents have a common goal?
Is some action successfully completed?
Do all agents contribute to the successful completion of some action?
Is there cooperation involved?
Do the agents share a commitment to complete some action?
Is the same action intentionally started by all agents?
Is the same action performed voluntarily by all agents?
Does each agent know what the other's intentions are?
Do they take each other's intentions into account?
Are they both aware of their common knowledge?

Does this count as a Joint Action?
-YES/NO

How confident are you about your response ?
(1-10)

4.2 Evaluating participants' responses

The numerical answer to the confidence question will be multiplied by +1 in case of "Yes" and multiplied by -1 in case of a "No" answer to whether a vignette counts as a joint action. Participants will not be able to alter previous responses and data from the participants that fail the comprehension questions will be excluded. Comprehension questions will also serve to provide an answer to the second question formulated at the beginning, this is, to determine what elements of the vignettes play a role in the participants' decisions. This is because comprehension questions are linked to the "symptoms" table to the effect that they indicate the presence or absence of the different "symptoms". One worry is that the participants' responses might be influenced by the comprehension questions. As a result we will conduct another experiment in which the participants will only have to respond to the first comprehension question. Both experiments will analyse the mean attribution score of joint action to the different vignettes as shown in the graphs (fake data) on page 4.

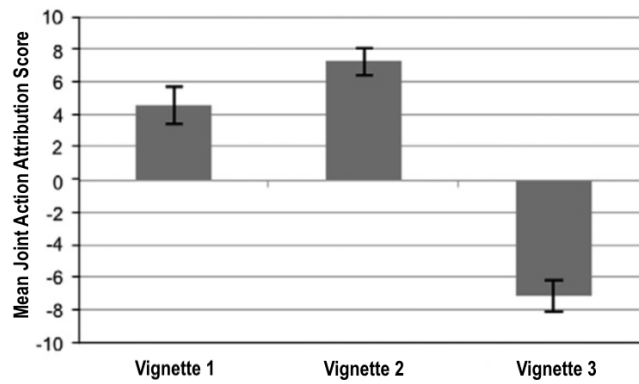


Figure 1: Mean joint action scores derived by combining dichotomous choice with confidence ratings (Fake data).

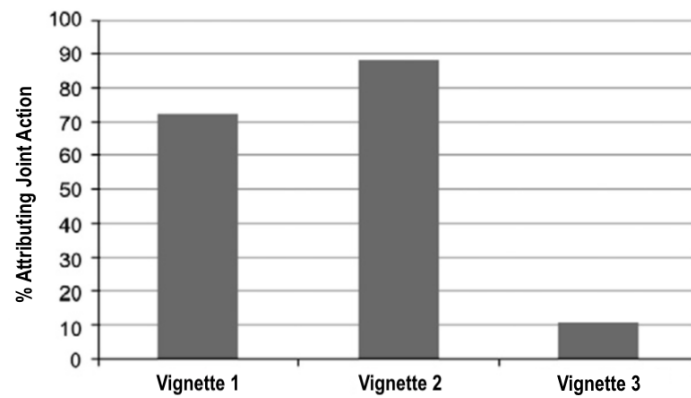


Figure 2: Percentage of the participants characterizing the cases in Vignettes 1,2 and 3 as joint actions (Fake data).

4.3 Considerations

Should we allow responses from the participants who have only failed one or a few questions?

Should the study be within-subject or between-subject design?

Should the vignettes be presented in a particular order?

Could consistent low ratings in the confidence questions indicate that participants are confused about the vignettes or because of the questions? Unlike in Starmans & Friedman (2012) we cannot have control cases, does that pose a deep problem?

References

- [1] Baier, A. (1997). Doing Things With Others: The Mental Commons. In L. Alanen, S. Heinamaa & T. Wallgreen (Eds.) *Commonality and Particularity in Ethics* (pp. 15-44). Palgrave Macmillan.
- [2] Blomberg, O. (2016). Common Knowledge and Reductionism about Shared Agency. *Australasian Journal of Philosophy*, 94(2), 315–326.
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- [4] Gilbert, M. (2013). *Joint Commitment: How We Make the Social World*. Oxford University Press.
- [5] Starmans, C., & Friedman, O. (2012). The folk conception of knowledge. *Cognition*, 124(3), 272–283.