

PONTIFÍCIA UNIVERSIDADE CATÓLICA DO RIO GRANDE DO SUL  
ESCOLA DE HUMANIDADES  
PROGRAMA DE PÓS-GRADUAÇÃO EM FILOSOFIA

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**THE ONTOLOGICAL STRUCTURE OF COLLECTIVE ACTION**

Porto Alegre

2017

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Tese apresentada como requisito para a obtenção de grau de Doutor pelo Programa de Pós-Graduação em Filosofia da Pontifícia Universidade Católica do Rio Grande do Sul.

Orientador: Prof. Dr. Felipe de Matos Müller

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Aprovada em \_\_\_\_ de \_\_\_\_\_ de \_\_\_\_\_.

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## ACKNOWLEDGMENTS

There are many people I should thank in my academic trajectory. For the first contact with what is philosophy inside the university I must thank important figures from my Economics and Social Politics courses: my advisors Marcos Alves Valente and Márcia Grisotti; Professors Brena Paula Magno Fernandez, Jacques Mick, and Ricardo Silva; and the members of the Orange Table: Bruno de Lorenzi Cancelier Mazzucco, Leandro Lind, Paulo Victor Fonseca, and Zenir Mittmann.

In this period, at UFSC, I also had the first contact with contemporary philosophy in the analytical epistemology group led by Professor Alexandre Meyer Luz, where I enjoyed the company of UFSC's philosophy graduate students: Breno Ricardo Guimarães Santos, Delvair Custódio Moreira, Eduardo Benkendorf, Pedro Merlussi, Rafael Alberto D'Aversa, and Renato Mendes Rocha.

Those experiences were responsible for my migration to philosophy. My core training on the field was held in these last four years at PUCRS and I am greatly indebted to the whole Post-Graduate Program in Philosophy and, especially, to my advisor Felipe de Matos Müller. I was very happy to find many wonderful people and remarkable philosophers here: Professor Claudio de Almeida, Kátia Etcheverry, and Rogel Esteves de Oliveira; graduated and graduating Students: Aline Splettstosser, André Neiva, Doraci Engel, Felipe Castelo Branco Medeiros, Felipe Mendes Sozzi Miguel, Gregory Gaboardi Vieira, João Rizzio Vicente Fett, José Eduardo Pires Campos Júnior, José Leonardo Ruivo, Lucas Roisenberg Rodrigues, Luís Rosa, Patricia Ketzer, Ricardo Rangel, Rossul Padilha, Tatiana Marks Heck, Thiago Rafael Santin, and Valentinne Serpa;

My stay in Vienna was also a remarkable experience. I thank my foreign advisor Prof. Hans Bernhard Schmid and his colleagues Michael Schmitz, Gerhard Thornhauser and Martin Weichold. I also want to thank the graduate students attending to the Social Ontology Workshop: Christoph Lernpaß, Federica Berdini, Gloria Maehringer, Mirela Fus, Odin Kroeger, Oliver Lukitsch, and Xiaoxi Wu. That was the place where I started to present papers regarding the content of this work.

Specifically speaking about the present work, I would like to thank Prof. David Schweikard and Prof. Rodrigo Azevedo dos Santos Gouvea for accepting being part of the evaluation board. I owe special thanks to Prof. Roberto Hofmeister Pich and Prof. Rogel Esteves de Oliveira for also composing the board and, specially, for reading a previous version

of this work. Their remarks on that version contributed decisively to improve the content, structure and style of the present work. Likewise, I thank Prof. Felipe de Matos Müller for providing guidance and support along the way; José Leonardo Ruivo for the attentive listening of my underdeveloped ideas and helping to overcome serious difficulties; Stéphane Dias for reviewing this work; and Ana Testoni for the incentive in disguise of pressure, a real external super-ego.

My very special thanks to my family, Luiz Vitório Cichoski, Sueli Lúcia Da Cas Cichoski and Vinicius Da Cas Cichoski, for all their support, even when they did not understand what I was doing. Very sorry for these last moments for being distressed and absent, exclusively concerned with this work.

Finally, I thank CAPES for providing the tuition along these four years and for the opportunity to be a visiting student at Vienna University (PDSE).

*“Actually, lots of things happen after you die,  
just none of them include you...”*  
Louis C.K.

## RESUMO

Quando nós falamos sobre entidades coletivas, ação é o tipo de atribuição mais comum. Nós rotineiramente falamos coisas tais como: “China suspende todas as importações de carvão da Coreia do Norte”; “Uber está investigando acusações de assédio feitas por ex-funcionário”; “A Suprema Corte estuda o caso de um tiro disparado nos E.U.A. que matou um adolescente no México”; “Malásia retira embaixador na Coreia do Norte”; “SpaceX lança foguete a partir da histórica ‘plataforma da lua’ da NASA.”. São essas atribuições verdadeiras? Com certeza todas elas poderiam ser meramente metafóricas. Nós poderíamos tomar entidades coletivas como agentes somente como uma maneira de falar. Neste trabalho, eu argumento em favor de uma posição realista a respeito de entidades coletivas e seu status de agente; tornando algumas dessas sentenças verdadeiras. Ultimamente, muitos filósofos têm abordado esse tópico, mas a discussão tende a ser guiada pelo problema da intencionalidade coletiva, o problema de como entidades coletivas podem possuir estados mentais. Meu trabalho tenta trazer mais elementos da filosofia da ação para a investigação de ações coletivas. Eu tomo como guia o problema da individuação da ação, porque esse tópico aborda questões de central importância para ações coletivas. Especialmente a questão das ações agregadas: ações que são compostas de outras ações, que parecem ser os casos paradigmáticos de ações coletivas, na medida em que ações coletivas são, presumivelmente, compostas de ações individuais. O problema da individuação da ação nos leva a dois conceitos centrais da natureza da ação: ação básica e intenção. Neste trabalho, eu mostrarei como uma investigação sobre ação básica pode nos ajudar a localizar o lugar das contribuições individuais em ações coletivas e como uma investigação sobre intenção pode localizar um elemento fundamental da ação que é irreduzível e distintivamente coletivo nos casos de ações coletivas. Depois de explorar esses dois conceitos centrais, eu ofereço uma definição de ação que leva a sério o lugar da intenção como guia para identificar quando um evento constitui uma ação.

**Palavras-chave:** Ação Coletiva; Intencionalidade Coletiva; Filosofia da Ação; Individuação da Ação; Ação Básica; Intenção

## ABSTRACT

When we talk about collective entities, action is the most common kind of ascription. We regularly say things such as “China suspends all coal imports from North Korea”; “Uber is investigating harassment claims by ex-employee”; “Supreme Court considers case of a shot fired in U.S. that killed a teenager in Mexico”; “Malaysia recalls ambassador to North Korea”; “SpaceX launches rocket from NASA’s historic moon pad.” Are those ascriptions true? For sure, they could all be metaphoric. We could take collective entities as agents just as a way of speaking. In this work, I argue in favor of a realist position regarding collective entities and their status of agent; rendering some of these sentences true. Recently, many philosophers are addressing this topic, but the discussion tends to be guided by the problem of collective intentionality, the problem of how collective entities can have mental states. My work tries to bring more elements of philosophy of action to the investigation of collective action. I take as a guide the problem of action individuation, because this topic addresses questions of central importance for collective action. Especially the question of aggregate actions, actions that are composed of other actions, which seems to be the paradigmatic case of collective action, insofar as they are presumably composed of individuals’ actions. The problem of action individuation leads us to two central concepts on the nature of action: basic action and intention. In this work, I will show how an investigation on basic action can help us locate the place of individuals’ contributions in collective action and how an investigation on intention can locate a fundamental element of action that is irreducible and distinctively collective in collective action cases. After exploring these two core concepts, I provide a definition of action that take seriously the place of intention as a guide to identify when an event constitutes an action.

**Keywords:** Collective Action; Collective Intentionality; Philosophy of Action; Individuation of Action; Basic Action; Intention

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## 1 INTRODUCTION

Ontology has been back to the agenda and, in recent years, the subfield of social ontology has grown substantially. The prosperity of this particular subfield is mainly due to the research on *collective intentionality* which is, simply put, *group mind* or what is going on when we ascribe mental states to collective entities. Philosophers are inquiring what is meant when we say things like: “EU hopes to unblock Canada trade deal”; “Grieving Brazilian town receives bodies of soccer plane crash victims”; “the US intends to start a Cyberwar with Russia?”; “Unilever believes that Biotechnology offers important opportunities to meet their commitments both in sustainable sourcing of ingredients and the development of innovative products”; etc. Hope, grief, intention, and belief are kinds of intentional relation a subject maintain with a content, that is, different kinds of mental states. Looking into collective intentionality, philosophers expect to clarify what is going on when the subject of such sentences are collective entities.

From all these distinct kinds of mental states, beliefs and intentions are the most discussed in the literature about collective intentionality.<sup>1</sup> The first seems to be directly involved in the foundation of social reality. Guala (2007) and Epstein (2015) call this approach *The Standard Model of Social Ontology* which core idea is that:

(...) the social world is a kind of projection of our thoughts, or attitudes, onto the world. We, as a community, make the social world by thinking of it in a particular way. The bills in my pocket are money because we all think of them as money. The president has the powers he does because we grant him those powers. America is a nation because we think of it as such. The social world, quite generally, is the social world in virtue of our beliefs about it (EPSTEIN, 2015, p. 51).

The leading name of this approach is John Searle (1995; 2010). Searle’s explanation for the social world, the constitution of what he calls *institutional facts*, is based on collective acceptance. Searle paradigmatic example of an institutional fact is money.<sup>2</sup> In order for these pieces of paper play the role they do in daily transactions, people must accept it. If people start to reject trade with dollar bills, demanding transactions to be done with gold or cigarettes, those

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<sup>1</sup> Phenomenological approaches to collective intentionality and social cognition are also on the rise, see for example Salice and Schmid (2016), and; Szanto and Moran (2016). This approach is responsible for bringing emotions to the agenda of collective intentionality.

<sup>2</sup> Tuomela (2007, p. 136) also endorses the claim that social reality is created by collective intentionality: “(...) there are two kinds of group beliefs: group beliefs about the natural world (e.g., ‘Grass is green,’ ‘The earth is flat’) and purely institutional group beliefs such as ‘Euros are our money.’ In the latter case, the content of the belief is completely artifactually created. These group beliefs are acceptance beliefs, in the sense of being based on voluntary acceptance. They are something that it is up to the group to accept. The group can thus accept as its view that the earth is flat, but of course it cannot make the earth flat, nor can it guarantee the truth of this belief, while in the institutional euro case, it can itself validate its belief.”

pieces of paper issued by the Bureau of Engraving and Printing will cease to be taken as money. Searle claims that what is being accepted is a constitutive rule. Constitutive rules create something. The familiar example of constitutive rules are game's rules. A checkmate or a goal are constituted by rules. The checkmate is a situation where the king is threatened and there is no way of getting it out of danger. A goal is a situation where the ball crosses the goal line between the goalposts. There is no checkmate nor goal without the rules saying what they are. Searle proposes a general formula for constitutive rules: X count as Y in C. In this formula, X is an object, Y is the imposition of a status-function, and C is a specific context. Applying this formula to the money example, Searle (1995, p. 28) says: "Bills issued by the Bureau of Engraving and Printing (X) count as dollars (Y) in the United States (C)". In short, institutional facts are created by the collective acceptance of a constitutive rule.

Intention is another mental state that has drawn a lot of attention in the debate about collective intentionality. Much more common than ascribing mental states to collectives is the ascription of agency to them: "Uber charges extra fee for passengers"; "New York reaches deal to shut Indian Point nuclear plant"; "Drug gang beheads dozens in Brazil jail"; "China says Japan scrambled jets over its air carrier"; "The group searched the literature to identify publications on the appropriate conduct and reporting of diagnostic studies"; "Apple hires a Carnegie Mellon professor to improve its AI"; "Community pays final respects to former Mayor Randolph". If these sentences are true, they should imply that the collective entity figuring as the agent is adequately related to the action being performed, since, in order for an action to happen, an agent must be adequately related to her action. Intentions seem to be the best candidate to provide the link between agent and action. Therefore, the pervasive ascription of agency to collective entities motivates philosophers to address the question of what is the intention of collective entities.

The action of collective entities is the central concern of this work. Standard accounts of collective action tend to be highly concerned with collective intentionality, paying great attention to what is for a collective entity to intend an action, the main goal being to explain which mental states are involved when people engage in joint endeavors. This inquiry should elucidate how people coordinate and cooperate (how and why people act together). In order to provide this kind of explanation for the collective action phenomena only intentional aspects tend to be taken into account.

My worry is that one important aspect of action is being neglected. It is not sufficient to intend in order to perform an action; intentions must bring about something else. This is the main objective of the present work, that is, draw the attention to the whole phenomena of

collective action, not limiting an account of action to its mental component. This is not to deny the importance of intention to action, quite the opposite, the account of action advanced here gives a privileged place to intention in the constitution of action (a more significant place than standard accounts on the nature of action tend to bestow).

This broader view of collective action is not an original move. Chant (2006; 2007), Schweikard (2011), and Ludwig (2014a) elected the ontological structure of collective action as their main object of concern, instead of focusing only on its mental aspects.<sup>3</sup> A distinctive difference of their proposals is to bring topics and problems from the philosophy of action to the discussion on collective action. Standard collective action theories make very few remarks on the nature of action and related issues. The present work follows Chant's and Schweikard's opinion that a particular problem in philosophy of action could render important advances to a theory of collective action: the problem of action individuation. Similar to Schweikard (2011) and following the suggestion made by Chant (2007) an account of collective action emphasizing its ontological structure will be presented here. The individuation of action provides important analytical tools in order to exhibit and explain this structure

But what is so special on this problem of action individuation? How can it enlighten action's ontological structure? Individuation of action proposals pay special attention to the relation actions maintain to each other. And there is one kind of relation that should concern someone dealing with collective action: aggregate actions. Some actions are composed of many other actions, that is, they are aggregate actions. Writing a letter is an example, since it is composed of many other actions of writing words on a piece of paper. Washing the dishes is also an aggregate action, since it is composed of washing forks, knives, spoons, plates, and glasses, etc. Human beings tend to perform rather complex actions that usually are composed of more actions, just as writing letters and washing dishes.

The importance of aggregate actions for theories of collective action is quite obvious. Collective actions apparently involve more than one individual and each of the individuals engaged in the collective action might be doing something, doing their parts on the joint endeavor. These parts compose the aggregate action that will result in a collective action. Joint actions are the most intuitive kind of collective action. Joint actions are actions that take more than one agent to be performed. Usual examples of this kind of action are: two individuals carrying a table, two individuals walking together, and two individuals playing chess. The

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<sup>3</sup> Tuomela (1984) also approaches collective action in this fashion. However, in his other works he does not keep collective action in line with philosophy of action issues, adopting the standard focus on collective intentionality; see Tuomela (2013), for example.

current debate tends to focus on small groups (two persons), but a joint action is present in cases of larger collective entities. An assembly line is a joint action to build up something, like a car or a plane, and can involve quite a lot of people. The operation of an oil rig is a very complex action that depends on many people doing their individual parts.

However, the aggregate action scheme will not work for every kind of collective action. This scheme fits perfectly for joint action, which is the clearest kind of collective action. But collective action is a more comprehensive category. Collective action is every action ascribable to a collective entity and some cases of such ascription will not configure a joint action. One kind of collective action that is not a joint action was named *proxy action* by Ludwig (2014b). The core feature of a proxy action is that someone is doing something that counts as or constitutes or is recognize as another person doing it. It should be noted that proxy actions are not particular subspecies of collective action. Someone having a power of attorney to act on behalf of someone else or someone being responsible for someone else (children or incapacitated person) are cases of proxy action in the realm of individual action. However, the relevance of proxy actions here is to enable collective actions that are performed by only one individual. Examples of this phenomenon are a national state's declaration of war by means of a public speech performed by its president or a company's purchase by means of a financial transaction performed by the finance director. Proxy agency is obviously not related to aggregate actions; however, individuation of action has also a saying in these cases. Individuation of action pays special attention to the relation between actions. Therefore, it might enlighten how the president's speech is related to the national state's declaration of war or how the finance director's financial transaction relates to the company's purchase.

A common feature for both joint actions and proxy actions (of collective entities) is their dependence on individual action. Roughly speaking, whenever a collective entity acts, there is (at least) an individual acting. Since the main objective of this work is to spell out the ontological structure of collective action, it is necessary to locate these individual actions that form the base of such structure. This means that it will be adopted a kind of foundationalist structure whose basic elements are individual actions. I take the discussion on basic action as a good strategy to address the necessary individual contribution of collective actions.

As anticipated before, intention shall play a central role in the nature of action being proposed here. My claim that an exclusive attention to intention is wrong does not mean that I attempt to deny its importance for an account of *action*. My proposal, called *constitutivist view*, is based on a stricter version of the *simple view*. In short, the strategy will be to extend the need

for an explicit reference to an event by the intention not only to render an action intentional, but to the very constitution of this particular event as an action.

So this is the path outlined for the present work: the departing point is the problem of action individuation; then, I investigate the concept of basic action and highlight how it can locate the individual contributions to collective actions; to finally, discuss the concept of intention and offer a proposal for the nature of action. Chapter Two presents some metaphysical presuppositions being assumed in this work, especially about the nature of action and collective entities. Besides these assumptions, the core topic of this metaphysical chapter is action individuation. I will concentrate on the presentation of Goldman's fine-grained account to the individuation of action, since this is the proposal that provides the most detailed theoretical tool for the explanation of the relation between actions, namely level-generation. The last part of the chapter is dedicated to the discussion of the literature that already employed Goldman's account to collective action cases.

Chapter Three deals with basic action. Basic action is a central concept for both Goldman's level-generation schema and causal action theory, the leading proposal on the nature of action. I will present this topic beginning with the search for the need to posit a basic element in any theory. I argue that regress problems are the main motivation for foundationalist theories, that is, for the postulation of a basic element. After presenting three distinct regress problems for action theory, I will discuss the basicness of the basic action, that is, which features a specific event may have in order to constitute a basic action. I argue against the view endorsed by Danto (1973, 1999), the originator of the concept, who thought basic action as a class exclusively composed of bodily movements' events. The alternative explanation for the basicness of basic action adopted here gives intention a central role in the determination of which event amounts to the basic action. Specifically, the basic action will consist in the event that is explicitly referred by the intention that triggers the actional mechanisms of the agent. The search for a related structure on collective action cases will lead us to a reductionist view of basic action, that is, every collective action is based on one (or more) individual basic action(s). In other words, every basic action that is present in the structure of a collective action is performed by an individual member of this entity.

Chapter Four focuses on the nature and function of intention for both individual and collective cases. I take intentions to be plans capable of executing and guiding actions. In the collective case, I will point to a non-reductive aspect of intention. I will show some cases where it seems plausible that collective entities can have plans that no individual member of it holds. Finally, I advance an alternative account on the nature of action. In this proposal, intentions are

the leading element. I will set aside the causalist framework in favor of a constitutivist one. The constitutivist view will be constructed as a stricter version of the simple view, where the reference to a particular event in the intention will not just render an action intentional, but will be essential to the grant the very status of action to that event.

I take this to be the best conceptual framework to spell out the ontological structure of collective action. This proposal contemplates the fundamental role that intentions play, as well as can locate individual contributions of which collective actions are dependent, and provides an explanation of the relation individual actions and intentions have with collective actions.

## 2 METAPHYSICAL GUIDELINES

In this chapter, I will offer an initial exploration of the nature of action. This introductory approach will not aim to offer a precise definition of action; it just aims to explore some intuitions about its nature (section 2.1.1). More specifically, the somewhat ubiquitous assumption that actions are events and the recognition of two central elements of action by standard accounts: bodily movements and mental states. The assumption that actions are events is derived from the intuition that actions are somehow related to causation. Events are usually understood as the relata of causation, so actions seem to be a special kind of event. This basic intuition leads to a causalist framework. The *causal action theory*, also known as the *standard story of action*, is indeed the mainstream position in the analytic philosophy of action and mind,<sup>4</sup> even though it has suffered many criticisms throughout the times.<sup>5</sup> Nevertheless, since it coheres with most of our intuitions about the nature of action, it seems a good place to start selecting core notions to guide an adequate definition of action and is the account endorsed by the majority of philosophers cited here. In Chapter 4 (section 4.4), I will return to the topic of the nature of actions; and given the whole trajectory of this work, I will propose an alternative account.

Starting from *action*, I will introduce two central concepts for the discussion about its nature: *causation* (2.1.2) and *events* (2.1.3). These sections aim to briefly present these related concepts in order to clarify what an action is. Besides that, they will offer some tools that will be important for the discussions along this Chapter, namely, Kim's proposal of a notation for events. The last metaphysical concept on this overview of initial assumptions is *collective entity* (2.1.4). I will outline the ongoing strategy of explaining metaphysical features of collective entities through the constitutive relation this kind of entity maintains with its members.

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<sup>4</sup> A recent overview and defense of this theory can be found in Schlosser (2006). For a broader discussion on the theme, see Aguilar and Buckareff (2010).

<sup>5</sup> Enç (2003) highlights two problems for the *causal action theory*: (i) deviant causal chain and (ii) agent disappearance. (i) is perhaps the immediate reaction of everyone who encounter the *causal action theory* for the first time. Since the bulk of the theory depends on causation, it must specify the *right way* for the appropriate relata to cause an action. This kind of problem is raised by means of counter examples, where it is assumed that all causal conditions are satisfied; but we are not dealing with a proper action. Critics employ examples as the following: "A climber might want to rid himself of the weight and danger of holding another man on a rope, and he might know that by loosening his hold on the rope he could rid himself of the weight and danger. This belief and want might so unnerve him as to cause him to loosen his hold, and yet it might be the case that he never chose to loosen his hold, nor did he do it intentionally" (DAVIDSON, 2002, p. 79). (ii) is a concern about the place of the agent in action. *Causal action theory* emphasizes the role of mental states and events, as we shortly shall see. Critics point out that agent's properties should not figure as the core elements on action explanation. Intuitively, agents themselves should figure as the crucial element. I will not address these problems in this work. See Schlosser (2006) for more on this topic.

The main metaphysical question of concern in the present Chapter, however, is the problem of action individuation (section 2.2). This problem emerged with a disagreement on the linguistic level, which is an odd way to discuss metaphysical individuation.<sup>6</sup> More precisely, the question that guides the discussion is not which properties we should look for in order to identify two actions as the same one but if different descriptions refer to the same action. The oddity might be captured by trying to apply this discussion to other individuation inquiry. Say that I will investigate the individuation of my coffee machine by the relation of descriptions such as “The object with the serial number XY1460C”; “The black object on my table”; “The object that makes coffee in my house”, “The metal and plastic thing situated on the table”, etc.; instead of the pointing for actual properties of having such and such serial number, or being of that brand, doing such and such operations, being composed of such and such stuff, etc. Since in order for those descriptions to be true, they must entail the instantiation of those properties by the object, many elements of this linguistic dispute tackles the proper metaphysical question.

In this particular quarrel, I will pay special attention to Goldman’s solution, referred to the literature as a *fine-grained approach* (GOLDMAN, 1970), *maximizing view* (GINET, 1990; ULATOWSKI, 2008) or *intensionalist theory* (SNEDDON, 2001). The central importance of exploring Goldman’s account is that it opens the discussion of action composition by other actions. Take, for instance, my action of washing the dishes. In order to successfully complete this action, I must (i) wash this cup; (ii) wash that cup; (iii) wash this spoon; (iv) wash that knife, etc. This means that my action of washing the dishes is composed of all these compounding actions. This aggregative feature is often overlooked by other accounts of action individuation and seems to be promising in discussions about collective action, since they are, intuitively, composed of individual actions.

In order to pave the way to a possible application to collective action, I will investigate some details of Goldman’s account. First, he offers an analysis of actions by means of *level-generation* (2.2.1), the main conceptual tool of his proposal. This special kind of relation observed between some actions might explain the contenders’ position in the debate. It also helps develop a graph analysis of action, the act-tree diagrams (2.2.2). I will also present Goldman’s position on two core concepts on the metaphysics of action: basic action (2.2.3) and

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<sup>6</sup> Taking Lowe’s (2003) distinction between a metaphysical problem of individuation and an epistemic problem of individuation, a problem based on descriptions seems to be of the second kind. I am concerned with the metaphysical problem and even if the problem about action arises with a confusion on the language level, I think that its development had provided arguments directed to the problem that I am interested in. See Schweikard (2011) for a similar position.

intention (2.2.4). This brief overview of Goldman's account might provide the idea he has on the nature of action.

Finally, I bring the individuation of action discussion to the realm of collective action (section 2.3). Here I will discuss two proposals that already emphasize the benefits of discussions on action individuation for collective action: Chant (2006; 2007) and Schweikard (2011). Chant adopts a rather individualistic approach, focusing the analysis in individual actions and its consequences. Doing so, she arrives at a striking consequence: not every collective action needs an intention aimed at a collective result. Schweikard develops his account of collective action based on the individuation problem (particularly on the notation of events) and a taxonomy of action. He points out that the fine-grained approach offered by Kim (1976) and Goldman (1970) is on the right track but is insufficient for a proper application on collective action cases.

## 2.1 METAPHYSICAL PRESSUPOSITIONS

This section is devoted to present some initial assumptions and overall characterizations of central concepts utilized along this work. The main concept needing some clarification is *action*. An initial characterization of what action is and what seems to be its constitutive elements will be discussed in the next subsection (2.1.1). Here I will assume the widespread assumption that actions are a kind of event. This assumption prompts the need to present the concepts of *causation* (2.1.2) and *event* (2.1.3). Finally, I will address the discussion on the nature of *collective entities* (2.1.4), focusing on the attempts made by philosophers to explain this kind of being by means of *constitution*.

### 2.1.1 The Metaphysics of Action

*Action* is a rather polysemic word. But one of its core meanings is related to doing something, bringing something about. Take the following examples: "Coastal erosion is the wearing away of land and the removal of beach or dune sediments by wave *action*, tidal currents, wave currents, drainage or high winds"; "Ventifacts are rocks which have been cut, and sometimes polished, by the abrasive *action* of wind"; "Caffeine blocks the *action* of the chemical substance adenosine, which scientists believe promotes sleep"; etc. In all these examples, the use of the word *action* denotes *causation*, i.e. bringing about some sort of effect

(wave and wind cause erosion and adenosine causes someone to sleep). Agents and agency, and patients and passivity are common features of our everyday language as these sentences show.

However, action theory is not the same as metaphysics of causation. In a narrow sense, *action* refers specifically to human beings doing something or the bringing about made by human beings. Action theory is concerned with this specific kind of causation. Since action in this narrow sense is what a human does, it should be easy to identify actions. All the sentences where the subject is a human being might correspond to an action. But there are counter-examples if the criterion adopted is ordinary language. Perceptions, sensations, desires, beliefs, feelings, faintings, sneezings, tremblings are all things that may be reported with sentences where humans are the subjects, but they are not actions. Ginet (1990, p. 2) invites us to consider:

“What was I doing while my house was being burgled? I was sleeping.” “What did I do when I saw that? I fainted.” “Then I did something that made everyone laugh. I blushed beet red.” Sleeping, fainting, and blushing are not (normally) actions of their subjects, but it appears that our language is willing to treat them as doings.

What these counter examples suggest is that human action is not the same as happenings, that there is a genuine distinction between things an agent does and things that happen to her, even if in all these sentences the grammatical subject is a human being.

These initial considerations show that actions seem to be related to causation, but not every instance of causation is an action in the narrow sense. The narrow sense of action, the one that motivates the philosophy of action, is linked with a special kind of subject, human beings; but not every agent-involving<sup>7</sup> event seems to be an action, there are *mere happenings*. In some instances of *mere happenings*, our ordinary language might place a human being as the subject of the sentence, but, on those events, the person in question is in fact passively involved. So, what criteria should be looked for in order to identify an agent-involving event that is an action?

The emergence of analytic action theory with Anscombe (1963) and Davidson (1963) gave *intentional action* the place of core concept to talk about human action. With the *intentionalist turn*, a determinate class of reasons gained prominence on action explanation. This privileged class of reason is composed of mental states and events in the mind of the agent performing the action under consideration.

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<sup>7</sup> Here I am not addressing agent-causation. This special kind of causation is often motivated by a libertarian position in the free will debate. Some philosophers (CHISHOLM, 1966; BRAND, 1984; O’CONNOR, 1995) propose a distinctive kind of causation, different from event-causation (note that I am just referring to an event where a human being takes part). Agent-causation is a special causation in the sense that it does not relate with antecedent events. There is no pre-determination, an agent can start a new causal chain solely in virtue of her will. Those philosophers propose that agents are *unmoved movers*.

In Davidson's account, those mental states are not just reasons that explain the event, making it an action, but they also cause the event intended by the agent.<sup>8</sup> Mental states can be used as rationalizing explanations for an action because they take part in the causal history of the event being analyzed:

According to that causal theory, the two mentioned features go hand in hand: if an event admits of a rationalizing explanation, then it is caused by mental states and events that render it rational, and if an event is caused by such mental states and events, then it can be explained in terms of reasons (SCHLOSSER, 2006, p. 13).

This amounts to the core assumption made by the *causal action theory*, the most adopted account on the nature of action. But, even theorists that do not endorse the causal action theory tend to regard some mental states or events as constitutive of action, though denying that these mental states or events have causal powers. It is widely accepted that mental stuff is somehow involved in the nature of action. The explaining factor is one of the strongest intuitions that this claim seems to capture. An agent acts when she has reasons to execute her doings. This criterion based on reasons might provide the distinction needed to contrast actions and mere happenings such as faintings, sneezings, tremblings, blushings, etc.

Consider the contrastive explanations of happenings and proper actions. We can explain how and why someone blushes, the individual was in an embarrassing situation and her sympathetic nervous system causes her blood vessels to dilate, flooding the skin with blood and resulting in the reddening of the face. It seems that this case of blushing also involves some psychological explanation; that is, the mental state of embarrassment or stress seems to cause all the bodily mechanisms that lead to the reddening of the face. However, let us contrast this happening with a proper action. Say that the blushing individual is stressed and decides to walk away from the stressful circumstance. Although her blushing does not configure an action, her walking away does. This is so because walking away has a reason-explanation. This person walked away in order to flee from the stressful situation while blushing typically does not occur for reasons. We can offer a reason *why* someone blushes, but we cannot give reasons *for which* someone blushes. Central to the point is the observation that blushing is not goal-oriented or motivated, contrary to actual actions.

Another important question concerns the specification of those mental states and events. If the analysis of action seems to be tied to intentional action, intentions should take the

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<sup>8</sup> Anscombe (1963) does not share this specific claim, that mental states are causes of actions. This is due to her focus on the concept of *intentional action*, rather than *intention*. However, she argues for a distinctive mental state involved in cases of intentional action, a special kind of knowledge about the action being executed by the agent and which is apprehended through an immediate awareness (a knowledge without observation). Briefly, intentional action for Anscombe is behavior susceptible of explanation in terms of reasons and this knowledge is used to spell out the reasons for which the agent act; but let me stress that this knowledge is not an intention.

privileged place of the specific mental state that is central to the action. But what are intentions? The standard position on *causal action theory* is that intentions are reducible to a set of beliefs and desires. Someone will act if she desires to attain a goal and believes that she is in a circumstance (capable of adopting efficient means) where she can bring it about. This account precludes the existence of another distinctive mental state such as *intentions*; there is no need to posit another mental state if the belief/desire pair already exhausted all the necessary explanation (and causation). I will argue against this position throughout Chapter 4, which is exclusively dedicated to defining *intention*. I will endorse a functionalist approach to mental states and argue that the belief/desire pair does not play the role intention should play in order for someone to act; therefore, we need to posit another mental state to explain action. This detailed presentation can wait until Chapter 4 since it should not prevent the comprehension of the discussions along this work. It is just important to retain the general claim that there is some mental state(s) essentially involved in action, which provides its explaining and causation.

However, it is important to note that mental states and events do not constitute an action alone. They are fundamental constituent parts, but their job is to render an event a case of action, so we cannot forget that events figure as another pivotal element on the nature of action. The *causal action theory* says that mental states' role is causally connected to an event; therefore, a proper account of action should address these two elements. This point might be clarified with Michael Smith's (2012, p. 388) presentation of the *causal action theory* (named here *standard story*):

Imagine that John flicks a switch. Is his flicking the switch an action? According to the standard story, we answer this question by first of all tracing back from the movement of the switch to some relevant bodily movement. Let's suppose that the bodily movement we discover is a movement of John's finger. If John's flicking the switch is an action then this bodily movement has to be one that John knows how to perform and his knowledge how to perform it mustn't be explained by his knowledge how to do something else. It must be the sort of bodily movement that could be a basic action for John, something he could just do. Supposing this to be so, the standard story tells us that whether or not John acts depends on the causal antecedents of that movement of the finger. Is that movement caused and rationalized by a desire John has that things be a certain way and a belief he has that his moving his finger has some suitable chance of making things the way he desires them to be? Does he (say) desire the illumination of the room and believe that he can illuminate the room by moving his finger against the switch? If so, does his desire and belief cause his finger movement in the right way? If these questions both get an affirmative answer, then that finger movement is an action; if not, then we once again have to conclude that John was involved in a mere happening in which he wasn't an agent.

Smith's example clarifies that there are two pivotal elements of an action for a standard account of *causal action theory*: a bodily movement and a belief/desire pair responsible for causing that bodily movement. I already anticipated that the definition of intention proposed in Chapter 4 will argue against the sufficiency of the belief/desire pair, that is, an account of action needs to

posit another mental state: intention. The other element pointed by Smith will also be criticized in this work. The intuitions about the nature of action presented earlier guided us to contrast actional behavior and non-voluntary behavior, that is, mere happenings. This focus on behavior makes us lose sight of the real important category here: events.

As said before, actions are a sub-species of events. Actions are the bringing about of an event by a human being. It is very hushed to concentrate on bodily movements as the only event that matters for an account of action. Why is John's movement of his finger so important for his action of flicking the switch? Here we can see the adoption of a behaviorist prejudice that is quite strong in the philosophy of action literature. The reasoning that supports this move is related to the prominent role *basic actions* have in spelling out the structure of action. John's moving his finger is closely related to his flicking the switch. Actually, John flicked the switch by means of having moved his finger. This kind of consideration points to the fact that actions can be performed through other actions, i.e., it is possible (and very usual) to identify a chain of events where each of them is an action. *Basic Actions* are the first event of the sequence that has the status of action. The behaviorist prejudice posits that basic actions are exclusively bodily movements, since they amount to the first event an external observer of some action's execution can locate. But why should an external observer criterion establish what counts as a basic action? Why stop at bodily movements instead of other events that occur inside an agent's body, such as muscle contractions, tendon stretchings or signals from the brain to the muscles?

A way to dispel this prejudice is to adopt the technical definition of *\*result\**. *\*Result\** is the description of an event that does not entail that an action occurred. It is always possible to remove any action reference of an action description. When it is done, we arrive at the *\*result\** of that action. The *\*result\** of my turning on the lights is the event that the lights were on (at a given time); the *\*result\** of my baking the vegetables is the event that the vegetables were cooked (at a given time); the *\*result\** of my dropping the substance of the container is the event that the substance was spilled from the container (at a given time). The main aspect to consider here is that descriptions of results do not entail any action, whereas descriptions of actions entail the *\*result\**: if I turn the lights on, the lights are on; but the lights might be on in virtue of a failure in the switch that makes them go on, without any agent bringing about this state of affairs. If I drop the substance of a container, the substance has been spilled from the container; but the substance of a container might be spilled by a gust of wind, etc.

So *\*results\** are *neutral* events, that is, they might be actions or not. They are intimately related to action, since every action must have a *\*result\**; however, when there is a *\*result\**, it does not entail that an action occurred. As McCann (1974, p. 452-453) stresses:

Results, then, are events which are necessary for those actions whose results they are. But (...) they are never sufficient for those actions. An event appropriate to serve as the result of an action A might occur without A occurring at all. If Smith dies someone may have killed him, but no one need have. An upward motion of my arm does not guarantee that I have raised it. And if I do raise my arm this does not assure that, as in the machine example, I have brought it about that I raise it. (...) We can fasten on the difference between Smith dying and someone killing him, between raising one's arm and making oneself raise it, and ask why it is that the former event in each case counts as the result of the action that is the latter event. The general problem of answering such questions I shall call the action-result problem: it is the problem of providing an account of how it is, when events and processes qualify as results of human actions, that they do so qualify.

As McCann says, the central problem for a theory on the nature of action is to explain why some *\*result\** is an action. Not only bodily movements are *\*results\**. For instance, McCann refers to Smith dying as a *\*result\** and it is clearly not someone's bodily movement. Chapter 3 will be dedicated to the conception of *basic action*. There, I will argue that it is a mistake to postulate that every basic action must be a bodily movement. Basic action is a central concept for the structure of action, since it is the first element in a chain of *\*results\** that receives the status of action. But is a mistake to posit that they are always bodily movements' events.

This brief discussion on the nature of action sets the stage for the remaining of this work. The basic claim of the standard account of the *causal action theory* will be challenged. I will show that an account of action based on the claim that the belief/desire pair causes bodily movements is wrong. Chapter 3 aims to dismiss the idea that basic actions are exclusively composed of bodily movements' events. I will argue that other kinds of *\*results\** might be classified as basic actions. Chapter 4 will point out the insufficiency of the belief/desire pair in the role that the mental component of action should play. However, Chapter 3 will preserve the causal connection between the mental component and the basic action, still working within a causal framework. Chapter 4 will point out the insufficiency of this causal framework to answer McCann's action-result problem for other *\*results\**, beyond the basic action. In order to face McCann's challenge, I will present a constitutivist view on the nature of action. But before doing so, I will present another important metaphysical assumptions. Below I will discuss causation, events and collective entities. Finally, Chapter 2 presents Goldman's fine-grained approach to the individuation of action problem as the adequate theoretical framework to spell out the structure of action.

### **2.1.2 The Metaphysics of Causation**

Reference to causation is pervasive in our daily lives, in the scientific discourse, and even in the philosophical literature: there are causal theories of knowledge, perception,

memory, mind, time, inference, meaning, reference, identity through time, etc. Despite that, this thing that seems to be so familiar, is very difficult to be explained.

First, causal relation seems to be not observable:

We can see motions and changes in motion in the balls [of billiard]. We can see that one ball touches the other immediately before the second begins to move. We cannot see that there is a causal relation between the two motions. Nor can we tell, just by observing the sensible qualities of a thing, what are its causal capacities and dispositions. (SANFORD, 2009, p. 5).

The idea that causal relation is not observable is not the only surprising characteristic of this familiar concept. It is also hard to determine when observed causal relations in the past are good evidence to predict the future. We can see one ball knocking another many times. Every time, the knocked ball moved after being touched. However, our evidence is still insufficient to sustain the claim that next time the ball is touched, it will move. It is logically possible that anything will happen next!

Despite these sources of skepticism surrounding causation, there is great endorsement to the idea that causal relation might be captured by regularities that are related to the laws of nature. Even if our experience does not provide infallibility, they are good enough to provide claims of regularity. The underlining idea here is that if  $c$  causes  $e$ , then there must be types  $C$  and  $E$  such that  $C$ -tokens are usually followed by  $E$ -tokens. A way to make the claim stronger is to say that  $C$  is necessary and sufficient for  $E$ . This way to spell out the relation between these two types of causal relata resembles laws of nature such as: Every metal dilates when heated; heat ( $c$ ) causes an increase in the kinetic energy of molecules and molecules moving more usually maintain a greater average separation ( $e$ ). Psillos (2009a, p. 7) expresses the intuition behind this in the following way:

The regularity intuition: whether or not a sequence of two distinct events  $c$  and  $e$  is causal depends on whether or not events like  $c$  are regularly followed by events like  $e$ . This intuition is captured by the dictum “same cause, same effect” and is underpinned by an epistemic consideration; namely, that we are unwilling to pronounce a sequence of events  $c$  and  $e$  causal unless there has been a regular association between events like  $c$  and events like  $e$ . For instance, according to this intuition, when we say that the hitting with the hammer caused the smashing of the porcelain vase what makes our assertion true has to do with the fact that the hitting of porcelain vases with hammers is regularly followed by the smashing of the vases.

This view endorses the idea that causation is somehow related to laws. But should every singular instance of causation be related to a law? At first sight, it seems too harsh that it should.

First, there are accidental regularities:

All gold spheres are less than a mile in diameter.

All uranium spheres are less than a mile in diameter.

Though the former is not a law, the latter arguably is. The latter is not nearly so accidental as the first, since uranium’s critical mass is such as to guarantee that such a large sphere will never exist (CARROLL, 2016).

Second, some causal sentences seem to be singular, like this particular case of the cat lapping up the milk, or like a unique occurrence, for instance, the sentence that “the eruption of Mt. Vesuvius caused Pompeii’s destruction.”

The regularity intuition could be preserved by noting that: “The question of whether there is significantly more to singular causation than lawful association is different from the question: for every singular causal fact is there a law that it can be brought under?” (CARTWRIGHT, 1998, p. 249). This different perspective on the relation between causation and regularities is usually attributed to Davidson (2005), and Psillos (2009b, p. 146) presents it in the following way:

(...) RVC [Regularity View of Causation] does not offer a recipe for (or a rule of) translation of singular causal statements into general causal ones. Take any singular causal claim, for example ‘*c* caused *e*’. The aim of RVC is not to translate this singular statement into a general one. Rather, RVC is committed to there being a law such that events described as events of type *C* (where *c* is one of them) are followed by events describe as events of type *E* (where *e* is one of them). The existence of the law is assured, but its description (and its exact statement) does not directly follow from the descriptions used to identify the relata of the singular causal statement.

In this understanding of what a regularity view of causation means, it is very clear that the endorsement of the regularity intuition supports the claim that for every causal statement, there is a law under which it fall. However, the exact content of this law might be difficult to precise. Not every causal statement (“*c* caused *e*”) can be directly translated in a lawlike statement (all *C* are followed by *E*).

This idea motivates the search for complex regularities: “Typically, effects have a plurality of causes: a certain effect can be brought about by a number of distinct clusters of factors. Each cluster is sufficient to bring about the effect, but none of them is necessary” (PSILLOS, 2009b, p. 150). Two elements explain the complexity involved in the causal relation. First, effects usually have many causes, a cluster of factors: I might have a car accident because (i) I was distracted using my phone, and (ii) there was another car coming in the opposite direction, and (iii) my brakes were not working properly, etc. Therefore, the cause of my accident is the conjunction of these single factors. Second, different clusters of factors can produce the same effect: I might have a car accident because (iv) there was a defect in the road, and (v) I was speeding, and (vi) I was frightened by a motorcycle passing by my side, etc. In order to capture a relevant regularity in the case of my car accident, it seems that we need to identify a disjunction of these clusters (conjunction of single factors). The relevant point being that each cluster of factors is sufficient for my accident, but none of them is necessary, given that another cluster could have produced it.

This observation motivated Mackie (1974) to suggest that causes are, at least, *inus* conditions; that is, they are insufficient but non-redundant parts of an unnecessary but sufficient condition for the effect. Psillos (2009b, p. 151) explains this idea in the following way (where A and X are *inus* causes of E):

AX or Y  $\leftrightarrow$  E,

where AX and Y are clusters of factors that are minimally sufficient for E. To say that AX is minimally sufficient for E is to say that AX is sufficient for E and that none of its conjuncts (A and X) are redundant: none of them, taken on its own, is sufficient for E. The conjunction AX, however, is not necessary for E. E can occur if Y occurs.

However, this is just one special form of regularity. Not every causal sentence might fall under such complex relation:

A causal regularity can have any of the forms:

- i. A  $\leftrightarrow$  E
- ii. AX  $\leftrightarrow$  E
- iii. A or Y  $\leftrightarrow$  E
- iv. AX or Y  $\leftrightarrow$  E

Of these forms, only (iv) has A to be an *inus* condition for E. According to (i), A is a sufficient and necessary condition for E; according to (ii) A is an insufficient but necessary part of a sufficient and necessary condition to E; and according to (iii) A is a sufficient but not necessary condition to E (PSILLOS, 2009b, p. 151).

There is a very strange implication in the endorsement of the regularity intuition. This intuition requires that a sequence of events count as causation only if it is a member of a class of similar sequences (only if it falls in some sort of regularity). The consequence is that this requirement makes the causal relation extrinsic to its relata. At first glance, causal relation seems to be relatively similar to other kinds of relation. However, the regularity requirement demands that in order to a particular sequence of events, like this piece of metal dilating after being approximated to this source of heat, to be an instance of causation depends on things other than this piece of metal and this source of heat. Specifically, by the regularity criterion, it would depend on whether other instances of metal pieces and sources of heat maintain the same relation, therefore establishing the regularity. In order to highlight this oddity we can contrast causation with other relations that do not depend on general facts about what happens at other places and other times, other relations that are not extrinsic to its relata: “‘c causes e’ has the same structure as ‘x loves y’ (or ‘x is taller than y’); but, it would be absurd to say that whether or not ‘Mary loves John’ is true depends on anything other than Mary, John, and their (local) properties and relations” (PSILLOS 2009b, p. 146).

Some philosophers take this implication to indicate the falsity of the regularity view of causation. They insist that causal relation can be fully captured solely by intrinsic features of their relata. Another plausible claim that is preserved in this singularist view, and would be denied by the regularity view, is that: “if there were no repetition in nature, there would still be

causation, in so far as there were change in nature” (PSILLOS, 2009b, p. 146). The singularist adopt a different position regarding the relation of laws and causation: laws are generalizations that we obtain by observing many instances of a causal relation; laws are not constitutive of causal facts. The singularist inverts the conceptual priority between these two elements:

Genuine singularists claim that what happened to similar events in the past, or what will happen to them in the future, is totally irrelevant to whether the sequence of events *c* and *e* is causal. They do allow for a generalist component to causation, but only if it is seen as a generalization over particular causal sequences of events (PSILLOS, 2009a, p. 127).

Contrary to the regularity intuition, the singularist is guided by the intuition that causal relation cannot be extrinsic to its relata:

The intrinsic-relation intuition: whether or not a sequence of two distinct events *c* and *e* is causal depends wholly on the events *c* and *e* and their own properties and relations, that is, it depends wholly on the intrinsic and local features of the actual sequence of events. For instance, according to this intuition, when we say that the hitting with the hammer caused the smashing of the porcelain vase what makes our assertion true has only to do with the properties of the particular hammer, the particular vase and the particular hitting (PSILLOS, 2009a, p. 6-7).

Focusing on the harsh opposition provided by the regularity intuition contrasted to the intrinsic-relation intuition, Psillos offers a roughly characterization of philosophical positions on the nature of causation. Regularity driven theories amount to what he calls Humean accounts that are characterized by (i) endorsing the regularity intuition, which implies that causation is (ii) extrinsic to its relata and they are also (iii) reductionists, in the sense that causation is not an ontological basic element, it supervenes on non-causal features of the world (especially, regularities). The non-Humean accounts endorse at least one opposite supposition. They might be (i) singularists, sustaining that causation is independent of regularities, or they might be (ii) guided by the intrinsic-relation intuition, where causation should depend wholly on intrinsic features of the relata, or they are (iii) non-reductionists, sustaining that causation is ontically autonomous, it amount to irreducible relations among events.<sup>9</sup>

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<sup>9</sup> Psillos is aware that this is just a rough approximation and many injustices might be being committed in order to draw a sharp division between the many positions on the metaphysics of causation. His conclusion on theories of causation guided by the Humean/non-Humean distinction highlights the reductive claim as the hallmark of a Humean theory of causation, characterizing the non-Humean as those who: “takes causation to be an autonomous feature of the world, an intrinsic relation among singular events, which cannot possibly be taken to supervene on non-causal facts” (PSILLOS, 2009a, p. 132).

Schaffer (2016) adopts a distinct criterion to offer a map of the terrain: “(...) the details of these many and various accounts may be postponed here, as they tend to be variations on two basic themes. In practice, the nomological, statistical, counterfactual, and agential accounts tend to converge in the indeterministic case. All understand connection in terms of probability: causing is making more likely. The change, energy, process, and transference accounts converge in treating connection in terms of process: causing is physical producing. Thus a large part of the controversy over connection may, in practice, be reduced to the question of whether connection is a matter of probability or process”.

In this brief overview on the metaphysics of causation, I focused in the striking opposition between the regularity intuition and the intrinsic-relation intuition. Given that these intuitions pull hard to different directions, there is serious skepticism about the possibility of reaching a univocal account of causation. Beebe, Hitchcock and Menzies (2009) offer some reasons for this skepticism. One important difficulty is the lack of consensus about the metaphysical status of causation, especially about its reductive or non-reductive nature; i.e. whether causation is a basic element of ontology or supervene on ones that are more basic.

Another factor that make causation talk complex is its interrelation to other areas. Theories of causation tend to be greatly influenced by advances in the sciences. Beebe, Hitchcock and Menzies mention as example Newton's law of universal gravitation applied to celestial mechanics that pointed for the existence of instantaneous action at a distance, and the evidence in favor of indeterminism in fundamental processes of our world entailed by quantum mechanics theory. This influence of scientific advancement is not so significant in other areas of philosophy.

Since causation is not restricted to scientific discourse, the concept of causation may vary according to different contexts. The physicist' understanding of causation might be very different from the legal expert's conception and both might differ from what we mean by *cause* in our daily lives. The centrality of causation in other areas of philosophy also brings problem for a precise and definitive answer to the metaphysics of causation. One particular theory of causation might have significant impact in other philosophical theories. Beebe, Hitchcock and Menzies (2009, p. 2) mention some examples:

A theory of causation that builds temporal analysis into the definition of cause rules out the possibility of a causal analysis of the direction of time; a theory that rules out causation by omission sits uneasily with consequentialism in ethics; a 'Humean' analysis of causation is incompatible with the view that all fundamental universals are dispositional; and so on.

All these reasons explain why there are so many theories trying to explain causation,<sup>10</sup> and why there are so many counter-examples to them favoring one particular intuition or

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<sup>10</sup> I will not address any particular theory on the nature of causation here, this would get me very far from the scope of the present work. I just want to stress that the vast majority of them are somehow related to a reductive assumption, trying to analyze causation in terms of more basic elements. In Schaffer's (2016) mapping of the field, there is little space for primitivism (very similar to non-reductionism, see Carroll (2009) for a precise distinction) and eliminativism (the position that deny the very existence of causal relation). But he offers an extensive list of proposals that try to offer an analyses of causation: nomological subsumption, statistical correlation, counterfactual dependence, agential manipulability, contiguous change, energy flow, physical processes, and property transference. Besides these accounts, there are also hybrids of them that aim at capturing intuitions behind the two main clusters of theories identified by Schaffer: the probability and the process views. Besides the intrinsic-relation intuition and the regularity intuition, Psillos (2009a, p. 6) lists a series of platitudes that philosophers usually take into account to guide the development of theories of causation: "Some of the platitudes of causation are these:

understanding of the concept. These considerations show how difficult it is to tackle the question of causal relation's nature. The recognition that the nature of causation is complex and multifaceted indicates that, perhaps, we should not hope to find a simple and neat theory that explain it (PSILLOS, 2009a). However, we might be able to attain some positive results by organizing the discussion in different aspects of the concept:

Modern discussions focus on three levels of causal discourse. The first is about singular causation: about individual 'causings' that occur at specific times and places, for example, 'the cat lapped up the milk'. The second is about causal laws: laws about what features reliably cause or prevent other features, as in, 'rising inflation prevents unemployment'. The third is about causal powers. These are supposed to determine what kinds of singular causings a feature can produce or what kinds of causal laws can be true of it – 'aspirins have the power to relieve headaches' for example. (CARTWRIGHT, 1998, p. 244)

There are three elements in this work that are related to causation: (i) overt action; (ii) *causal action theory*; and (iii) mental causation. The first emphasizes that the kind of action under concern here are those actions that cause some effect in the external world, actions that has consequences beyond our bodies. This kind of action tends to be the most discussed and guides most of the discussions in philosophy of action. Cooking lunch, eating lunch, opening doors, hugging someone, writing a book, assembling a car, driving a bus, dancing tango, and even reforesting the Amazon rainforest or ending the hunger are all overt actions. Overt action is usually contrasted with mental action, something like making an inference or a calculation. Philosophers point to bodily movements as the distinctive feature involved in overt actions. My characterization here is exploring another feature of overt action, namely, the fact that some bodily movements are causes of many effects, such as a cooked meal, an opened doors, a person being hugged, a bus riding the streets, a reforested forest, no more hungry people, etc. The sense of causation involved here is a very intuitive one and this particular kind of causal relation does not require any lawlike feature or regularity, it is the most naïve understanding of causation people have.

However, the other elements related to causation demands a stricter notion. The *causal action theory*, as seen before, claims that there is a peculiar relation between mental states and

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The difference platitude: causes make a difference – that is, things would be different if the causes of some effects were absent. This platitude is normally cast in two ways: the counterfactual way – if the cause hadn't been, the effect wouldn't have been either; and the probabilistic way – causes raise the chances of their effects – that is, the probability that a certain event happens is higher if we take into account its cause than if we don't.

The recipe platitude: causes are recipes for producing or preventing their effects – that is, causes are the means to produce (or prevent) certain ends (effects). This platitude is normally cast in terms of manipulability: causes can be manipulated to bring about certain effects.

The explanation platitude: causes explain their effects, but not vice versa.

The evidence platitude: causes are evidence for their effects – that is, knowing that c causes e, and knowing that c occurred, gives us (some) reason to expect that e will occur.”

events (bodily movements, if we maintain Smith's exposition of this theory), rendering the second as actions. The general idea is that an event is an action only if it is caused by a specific kind of mental state. I cannot see how different accounts on the nature of causation can affect this theory, only the eliminativist position would render any causal theory of action false, for sure. I think that the *causal action theory* is compatible with any theory of causation, because the central feature for this theory concerns the relata and have little to do with the nature of the relation (the only requirement being that the relation holds).

This leads us to the final element, the problem of mental causation. The important aspect of the *causal action theory* is that the cause of an action is a mental state. This brings the question of how mental states can be causes. Since I am especially concerned with overt actions, actions not restricted to what happen inside someone's mind, mental causation must be assumed to have physical effects such as the movement of the agent's body. The problem here spins around the metaphysics of the mind. If mind is not made of physical stuff, how can it have physical effects? This is the classical body-mind problem, where these substances were taken to be made of quite different stuff and mind, especially, would be such a particular substance that do not occupy space at all. This very special conception of mind renders quite mysterious the way it can relate to our body, a standard material object.

This dualism, where body and mind are taken to be two different things composed of different stuff, is not endorsed by many philosophers nowadays. This leaves open the possibility of a full-blown reductionism, like the identity theory (a mental states is identical to a particular type of neural state) or a middle ground proposal like property dualism, where there is the endorsement that everything is made of physical stuff, so there are only physical substances, but there are some non-physical properties, mental phenomena being an example.

I will not take any particular side on the problem of mental causation. However, it will appear again, in section 4.1, when I discuss the concept of mind adopted in this work. I will endorse a functionalist theory of mind. This approach is also dependent on the notion of causation: "functionalist theories take the identity of a mental state to be determined by its causal relations to sensory stimulations, other mental states, and behavior." (LEVIN, 2013). Those causal relations define the role (function) that the particular mental state has, and this is its very definition: rather than its composition, what matters for it to be instantiated is to act in accordance to its role, to fit a particular role. So, it seems that a functionalist needs to presuppose mental causation. This is not so easily done, but when I discuss the functionalist theory, I will say more about the problems related to mental causation that threatens this position.

### 2.1.3 The Metaphysics of Events

Action and causation are intertwined on our intuitions. Specifically, a widespread assumption is that actions are a special kind of event.<sup>11</sup> This section will provide a brief discussion on the nature of events. Just as the nature of action, there is no unanimous account on the nature of events. The most accepted position is that events are the elements that compose any causal relation; this is the standard view on the metaphysics of causation:

The standard view of the causal relata is that they are of the category of event, and that their number is two, in the roles of cause and effect. So on the standard view, when the cue ball knocks the nine ball into the corner pocket, there is said to be an (actual) event *e*<sub>1</sub> of the cue ball striking the nine ball, and an (actual, distinct) event *e*<sub>2</sub> of the nine ball sinking into the corner pocket, such that *e*<sub>1</sub> is cause and *e*<sub>2</sub> effect. The standard view, in short, holds that the causal relata are a pair of events (SCHAFFER, 2016).

One important feature of events, if they indeed fill this role in the metaphysics of causation, is that they must be concrete and particulars. If someone repeats the same experiment five times, there are five instances of this kind of experiment. Take the billiard balls in Schaffer's example. If you repeatedly make the cue ball strike the nine ball, making the nine ball sink into the corner pocket, there are five instances of the causal relation, even though both balls remain the same. And even if the causes and effects are composed of the same objects (the cue ball and the nine ball), they instantiate different events of different instances of causation.

The concrete and particular characteristics do not entail that events are objects. Casati and Varzi (2014) offer a list of distinctions between these entities:

First, there is a difference in mode of being: material objects such as stones and chairs are said to *exist*; events are said to *occur* or *happen* or *take place*. Second, there are differences in the way objects and events relate to space and time. Ordinary objects are supposed to have relatively crisp spatial boundaries and vague temporal boundaries; events, by contrast, would have relatively vague spatial boundaries and crisp temporal boundaries. Objects are said to be invidiously located in space — they *occupy* their spatial location; events tolerate co-location much more easily. Objects can move; events cannot. Finally, objects are standardly construed as continuants — they *are in* time and persist through time by being wholly present at every time at which they exist; events are occurrents — they *take up* time and persist by having different parts (or “stages”) at different times.

Since events are complex entities, it seems odd to regard them as concrete entities. Complexity is a feature shared with other entities such as facts and states of affairs and the latter are abstract entities. But, if events are indeed those elements that are related in causation, they must be concrete entities; otherwise, there would have no efficacy (how could abstract entities

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<sup>11</sup> One of the few dissidents is Bach (1980, p. 114) who states: “What I propose is that actions are not events but instances of a certain relation, the relation of bringing about (or making happen), whose terms are agents and events.”

take part in causation?). Facts and state of affairs are abstract and the latter is a-temporal too. The cue ball striking the nine ball is a state of affairs, but it could have happened yesterday, five minutes ago or in two days. That the cue ball stroked the nine ball yesterday is a fact; this fact was true yesterday, is true today and will be true tomorrow. A fact can make reference to an event that happened yesterday but is not occurring now and will not occur tomorrow. Even if we stroke the nine ball with the cue ball tomorrow, this will be another event, distinct from the event that happened yesterday. It seems plausible that every event has a fact associated with it, but they still might be categorically distinct (CASATI; VARZI, 2014).

Besides these general metaphysical features of events, it is important to present here Kim's (1976) specific proposal, since it bases Goldman's position on the individuation of action problem that will be presented in detail in section 2.2. For Kim, events are not basic entities. They are composed of more basic elements. Kim defends a notion of events as constituted of three elements: a substance, a property and a time. Roughly put, events are exemplifications of a certain property by a certain substance in a given time. With this tripartite notion in mind, Kim offers a canonical notation for events  $[S; p; t]$  where  $S$  accounts for the substance,  $p$  for the property being exemplified by this substance, and  $t$  is the time when the property was exemplified by the substance.

Of course, an event does not amount for the simple existence of three elements satisfying each component of the notation. Take the triple: Socrates, playing tennis, June 1, 1984 (SIMONS, 2005). Those elements exist and they correctly correspond to the ontological categories required by Kim: Socrates is a substance; playing tennis is a property; June 1, 1984 can fill the time spot. Kim is aware of this problem and requires that in order for the tripe to constitute an event, the substance must have the property at the designated time. Clearly, Socrates did not have the property of playing tennis on June 1, 1984, so that triple does not constitute an event. In addition, it should be noted that the triple, simply put, could not be an event, since it is merely a set, and sets are abstract entities.<sup>12</sup> Kim is usually not very careful

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<sup>12</sup> Impure sets, sets that elements are not only sets, raises some doubts about the metaphysical properties of abstract objects. Rosen (2012) discusses the relation sets have with space: "Consider, for example, the various sets composed from Peter and Paul: {Peter, Paul}, {Peter, {Peter, {{Paul}}}}, etc. We don't normally ask where such things are, or how much space they occupy. And indeed many philosophers will say that the question makes no sense, or that the answer is a dismissive 'nowhere, none'. But this answer is not forced upon us by anything in set theory or metaphysics. Even if we grant that pure sets stand in only the most trivial relations to space, it is open to us to hold, as some philosophers have done, that impure sets exist where and when their members do. It is not unnatural to say that a set of books is located on a certain shelf in the library, and indeed, there are some theoretical reasons for wanting to say this. On a view of this sort, we face a choice: we can say that since impure sets exist in space, they are not abstract objects after all; or we can say that since impure sets are abstract, it was a mistake to suppose that abstract objects cannot occupy space."

with this particular aspect of his proposal, tending to simplify events as the triple. A way to get around this particular problem is to interpret Kim as emphasizing the non-basicality of events, that is, its supervenient characteristic; and his notation is aimed at highlighting the basis of this supervenient occurrence; the triple identifies the essential constituents of events (SIMONS, 2005).

Kim's proposal is taken to be fine-grained in virtue of the way its notation represent events. We can clearly see this when we compare the way substances are represented and how Kim's notation represent events. Substances occupy a portion of space-time completely and exclusively. Events tend to have a more complex nature. At the same time, the same substance might exemplify more than a single property. Kim's notation makes each exemplification a different event. For instance, my computer is now on and is black. So, according to Kim, there are two events occurring right now: (i) my computer is on; (ii) my computer is black.<sup>13</sup> This proliferation of events is the fine-grained element in Kim's theory.

Summing up, Kim's (1976, p. 160-1) theory of events is based on two principles:

Existence condition: Event  $[x, P, t]$  exists just in case the substance  $x$ , has the property  $P$  at time  $t$ .

Identity condition:  $[x, P, t] = [y, Q, t']$  just in case  $x = y$ ,  $P = Q$ , and  $t = t'$ .

The *existence condition* specifies that the mere existence of the three elements of an event's notation does not amount to an event. The elements are meant to relate in some way; specifically, the property being exemplified must be exemplified by the substance at that specific time. The substance having this particular property at that time amounts to the event. The *identity condition* states that two events are identical if they have the same constitutive

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More important for the present discussion is the causal inefficacy criterion for abstract objects. Following the previous example, Rosen (2012) says: "(...) even if impure sets do in some sense exist in space, it is easy enough to believe that they make no distinctive causal contribution to what transpires. Peter and Paul may have effects individually. They may even have effects together that neither has on his own. But these joint effects are naturally construed as effects of two concrete objects acting jointly, or perhaps as effects of their mereological aggregate (itself a paradigm concretum), rather than as effects of some set-theoretic construction. Suppose Peter and Paul together tip a balance. If we entertain the possibility that this event is caused by a set, we shall have to ask which set caused it: the set containing just Peter and Paul? Some more elaborate construction based on them? Or is it perhaps the set containing the molecules that compose Peter and Paul? This proliferation of possible answers suggests that it was a mistake to credit sets with causal powers in the first place. This is good news for those who wish to say that all sets are abstract." This indicates that Kim's notation, based on a set, cannot be the event since events are the elements involved in causal relations, and sets do not have causal efficacy.

<sup>13</sup> This kind of example of Kim's proposal poses another problem, the distinction between events and states: "Also some properties are static, for instance being white. A piece of paper may remain white for years, yet this hardly constitutes an event in standard parlance. Kim accommodates this by stretching the term 'event' so that it covers states as well. As a piece of terminological legislation this moves the problem elsewhere, but the question of what distinguishes states from events in the narrower sense, whether it is a deep metaphysical distinction or not, remains" (SIMONS, 2005, p. 366).

elements; i.e. if it is the case that the same substance is exemplifying the same property at the same time.

The last point I want to make here is the way Kim's theory is applicable to action. Certainly, the underlying assumption is that actions are a subspecies of events. An action, in Kim's theory, is the exemplification of an act-property by an agent at a given time. This captures the spirit of that assumption. An action just picks out a specific kind of substance, an agent, and a specific kind of property, an act-property. The framework is pretty much the same. When John flicked the switch, John is the agent (substance) exemplifying a flicking act-type (property) at a given time (t). In Kim's notation: [John; flicking the switch; t].

### 2.1.4 The Metaphysics of Collective Entities

Ordinary language makes extensive use of collective nouns. It is quite common to address universities, corporations, national states, sport clubs, a class of students etc. and regard them as really existing. Also more rigorous discourses in scientific fields such as economics, sociology, history, anthropology, etc. assume the existence of collective entities. For sure, they could all be wrong. It is possible that the adoption of a collective noun is just a way of speaking, a shortcut for a long list of individuals. When we use *National State*, we might be addressing all its citizens; when we employ the word *battalion* or *legion*, we are addressing a specific set of soldiers; when we utilize *orchestra*, we are addressing the musicians that compose it. This economy of language has the consequence of producing metaphorical ascriptions by the reification of a collective entity. Sentences such as "The US elected Trump" or "The Working Class is on strike" might be metaphorical. Under this assumption, there is no real entity like the *United States of America* or the *Working Class*, so they could not perform actions such as electing someone or going on strike. These sentences might just be a shortcut for rather complex sentences, that might convey the actual meaning of the metaphorical expressions: "Adrian, Barbara, Connor, Diane, ..., (all US citizens) elected Trump." "Zack, Yasmin, William, Victoria, ... (all the members of the Working Class) are on strike". This approach denies the existence of collective entities, claiming that the usage of collective nouns is just a timesaver to a list of individuals. Whatever is being said about the collective entity in question, that it is performing an action or having some kind of mental state, is properly being ascribed to some individuals.

Some sentences with collective nouns might be compatible with this interpretation. Some of those sentences are really picking a common feature of an *aggregate* of people. This

usage is quite accurate for an opinion poll, for instance. In this sort of cases, it is important to note that, besides metaphoric, the sentence can also be inaccurate. For instance, taking the Eurobarometer surveys, someone could say that “The European people are sympathetic to a common defense and military policy among the EU member states.” This sentence reflects a shared opinion among those people residing in the European Union and would be wrong to say that this is the EU, a collective entity, opinion. But the inaccuracy is not in the misidentification of the subject, the inaccuracy is derived from the fact that not every respondent of the poll expressed this particular opinion. Some of them were against this common policy and others did not have a formed opinion on this issue. Proponents of this approach have foreseen this kind of inaccuracy. They expect that sentences employing collective nouns might be originated by a generalization, and, usually, it is not true that every individual in the invoked aggregation shares the common feature being ascribed. Therefore, advocates of this particular approach claim that the common feature is true for *most* or every individual aggregated by the collective noun.

However, not every collective noun seems to fit this interpretation. Take the sentence “the orchestra executed the symphony” or “the US declares war on terror”. In this kind of sentence, it is not clear that the collective noun represents a list or a set of individuals. The distributive feature observed in the metaphorical usage of collective noun cannot be applied to these cases. The musicians did not (each of them) executed the symphony (they executed their parts of it); the citizens of United States did not (each of them) declared war on terror (their representatives did so). These sentences say something about a collective entity and not about individuals sharing a common property. The metaphorical approach seems to mess up the kind of relation collective entities have with individuals. They seem to adopt a harsher version of ontological individualism. Ontological individualism just states that social facts (and, therefore, social entities) are exhaustively dependent on individualistic ones. This dependence relation should not preclude the existence of social facts, but those who adopt a metaphorical account on the usage of collective nouns seem to claim that there is no real social facts, just a shared property among individuals.

Ontological individualism might be a reductionist or a supervenience claim.<sup>14</sup> The bitter version of it, endorsed by the metaphorical defenders, is an eliminativist claim. Eliminativism

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<sup>14</sup> Epstein locates ontological individualism as a part of methodological individualism: “The thesis of methodological individualism in social science is commonly divided into two different claims – a controversial claim about explanation, and an innocuous claim about ontology. Explanatory individualism asserts that explanations in the social sciences can or ought to be provided in terms of individuals and their properties. It is often associated with projects in reducing or providing microfoundations for social theories. Ontological individualism is a thesis about the determination of social properties or facts” (EPSTEIN, 2009, p. 187).

seems wrong; since some previous examples show that some properties might legitimately be attributed to the collective entity. In order to investigate the nature of collective entities further, I will present the ongoing discussion about the relation this kind of entity maintains with its members.

Let us start this investigation by presenting features concerning groups' membership as presented by Ritchie (2013).<sup>15</sup> First, she says that groups are composed of individuals, but they are not composed of fixed individuals. Individual members of a group can vary with time, some new members might sign up and old members might leave the group. This is an important observation, since an identity criterion for groups cannot rely on the sameness of its members. The same membership restriction that does not apply to variation in time, also does not apply to a variation of worlds. It is very reasonable that Dave Grohl were not a member of Nirvana in a close world. In that close world, Nirvana does not depend on Dave Grohl to exist (perhaps Chad Channing was never upset for not participating in the songwriting and his partners never ceased to appreciate his drumming).

Ritchie points to yet another curious feature of groups' relation to its members, the fact that those entities can support coincidence relative to composition, that is, two distinct groups can be composed of the same members at the same time and in the same place. The possibility of sameness on the membership of two groups is widely accepted in the literature and Gilbert's committees example is widely cited. In this particular case, Gilbert assumes that there are two committees of a residential college with the same membership: the Library Committee, and the Food Committee.<sup>16</sup> Adding other coincidental elements, such as place and time, does not seem

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<sup>15</sup> I will use *groups* and *collective entities* interchangeably here. I take these terms to refer to a social kind that are composed of individuals, such that, they constitute a whole, a unity that can instantiate properties. I also want to point out that Ritchie works with other intuitive features of groups. I presented only (1), (2) and (6), which are criteria addressing membership, criteria relevant to investigate the relation groups maintain with individuals. These three criteria are also the most important for her own account, since she argues that opposing views cannot satisfy these particular criteria, specially the coincidence one (6). She summarizes all the intuitive features of groups in the following way:

“(1) Members–Times Groups can have different members at different times  
 (2) Members–Worlds Groups can have different members across worlds  
 (3) Existence–Times Groups can exist at one time without existing at every time  
 (4) Existence–Worlds Groups can exist at one world without existing at every world  
 (5) Space Groups are (or can be) located in space  
 (6) Coincidence Groups of the same basic kind can be extensionally coincident and non-identical” (RITCHIE, 2013, p.259).

<sup>16</sup> Gilbert deploys this example to deny the truth of the *summative account of group belief* (that seems plausibly extended to any mental states). Gilbert (1987, p. 188) formalizes it in the following manner: “A group G believes that p if and only if (1) most of the members of G believe that p, and (2) it is common knowledge in G that (1).” Her counter-example to this definition of group belief is: “Assume that there are two committees - say, the Library Committee and the Food Committee of a residential college - with the same members. It seems quite possible to say, without contradiction, that (a) most members of the Library Committee personally believe that college members have to consume too much starch, and this is common knowledge within the Library Committee; (b) the

problematic either. Imagine, for instance, that both committees might schedule a joint meeting, perhaps a joint meeting of every committee of the residential college. In this case, whenever and wherever the meeting took place, there will be two collective entities (the Library Committee, and the Food Committee) with the same members in the same location at the same time.

Ritchie notices that changes over time and worlds are criteria that groups share with other kinds of composites such as human bodies composed of cells; wood composed of cellulose fibers; or water composed of molecules of hydrogen and oxygen. However, coincidence seems more closely related to *constitution* than to *composition*. The famous example of the lump and the statue on discussions about material constitution also explores a kind of coincidence. Both the lump and the statue occupy the same place at a given time. But standard talk on constitution seems to present some sort of asymmetry that is not observed in the particular coincidence of groups here emphasized. The lump constitutes the statue but neither the Library Committee constitutes the Food Committee nor the Food Committee constitutes the Library Committee. This is what Ritchie calls *basic kind* when she claims that groups of the same basic kind can be extensionally coincident and non-identical. The Library Committee and the Food Committee are of the same kind, whereas the lump and the statue are not. Therefore, the Library Committee and the Food Committee are not related by means of constitution.

However, the Library Committee and the Food committee are constituted by the same individuals, since they have the same members. The relation between those committees and the individuals can be seen as a relation of constitution, so I will explore this particular relation once it is one of the most discussed approaches to the explanation of collective entities.<sup>17</sup>

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same goes, *mutatis mutandis*, for the members of the Food Committee; (c) the Food Committee believes that college members have to consume too much starch, whereas the Library Committee has no opinion on the matter. It seems that one can infer that according to our intuitive conceptions *it is not logically sufficient for a group belief that p either that most group members believe that p, or that there be common knowledge within the group that most members believe that p*" (GILBERT, 1987, p. 189, emphasis in original). I thank José Leonardo Ruivo for helping me with the content of this note.

<sup>17</sup> I just want to stress that Ritchie (2013) does not take this strategy. She views groups as *realized structures*. The nature of structures is imported from the discussion in the philosophy of mathematics. The structuralist position in that debate suggests that mathematics is a theory about structures. The main point is to abstract whatever objects there are, disregard the internal nature of these objects, and focus on the relation they maintain with each other in the structure: "A structure is the abstract form of a system, which ignores or abstracts away from any features of the objects that do not bear on the relations. So, the natural number structure is the form common to all of the natural number systems. And this structure is the subject matter of arithmetic. The Euclidean-space-structure is the form common to all Euclidean systems" (SHAPIRO, 2017). This structuralist approach to the nature of groups draws heavily on the characterization of member's functional roles. The way one member relates to the others (the functions she executes) will determine what she is: a *drummer*; a *treasurer*; a *president*; etc. When all the roles of an abstract structure are occupied, the structure is realized, i.e. the group comes to existence.

*Constitution* is a concept that has gain lot of attention lately. The most discussed example of constitution is the aforementioned lump and statue case. Wasserman (2013) presents the case in the following way:

The Puzzle of the Statue and the Clay. Suppose that, on Monday, a sculptor purchases an unformed lump of clay, which he names 'Lump'. Suppose further that, on Tuesday, the artist sculpts the clay into the form of the biblical king David and names his statue 'David'. It is tempting to say that, in this case, there is only one object in the sculptor's hands—David just is Lump. But, on reflection, this identification is problematic, since Lump and David seem to differ in various respects. First, Lump and David differ in their temporal properties: Lump existed on Monday, while David did not. Second, they differ in their persistence conditions (i.e., the conditions under which they would and would not continue to exist): Lump could survive being squashed, David could not. Third, they differ in kind: Lump is a mere lump of clay, while David is a statue. More generally, we can say that Lump and David differ in their non-categorical properties, where these include all of the various ways that a thing was, will, would, could, or must be. But if Lump and David differ in even one respect, they are not the same thing, for Leibniz's Law tells that, for any  $x$  and  $y$ , if  $x = y$ , then  $x$  and  $y$  have all the same properties. Thus, it seems as if the sculptor holds not one, but two, material objects in his hands: a statue and a lump of clay. More generally, it is possible for two material objects to exist in the same place at the same time.

Wasserman (2013) formalizes an argument that highlights a paradox:

1. David did not exist on Monday (but does exist on Tuesday).
2. Lump did exist on Monday (and also exists on Tuesday).
3. If (1) and (2), then David is not identical to Lump.
4. [So] David is not identical to Lump.

The paradox arises when we take as true the claim that two distinct things cannot be in the same place at the same time. For sure, Lump and David share these features; they are located in the same place on Tuesday, when David was sculpted. If it is true that two different things cannot be in the same place at the same time, then when David and Lump share those features they must be the same object, contrary to what the conclusion (4) says.

Here I will deal with only one response to this paradox, the *coincidence view* (also called *constitution view*).<sup>18</sup> The coincidence view is the most accepted and, besides its popularity

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<sup>18</sup> Epstein (2015, p. 170) summarizes the positions attempting to solve this paradox in the following way: "(1) The coincidence view: The statue and the clay are distinct objects. These objects are not identical to one another, but they do coincide. That is, they occupy the same place at the same time. (2) The identity view: Despite the appearance of different persistence conditions, there is just one object. The statue and the lump are identical. Proponents of the identity view have the burden of showing how the very same thing can have different persistence conditions, which seems to violate a basic principle about the nature of identity. Or else they need to deny that the lump can survive being crushed, or that the statue cannot. (3) The lump view: Others, more radically, deny the existence of statues altogether, and insist that of the two, only the lump exists. This view has the disadvantage that it denies the existence of statues, but then does not deny the existence of some ordinary middle-sized objects, such as lumps. Why should statues fail to exist, if lumps exist? (4) The nihilist view: Others take an even more radical position, denying the existence of all ordinary objects, including lumps. They hold that ordinary objects are an illusion—and perhaps also that the only real objects are those of fundamental microphysics. This avoids the uncomfortable claim that some middle-sized objects exist while others do not, but it is radically revisionist about the nature of objects altogether. (5) The dominant kind view: Still others argue that there is just one object at a given time, the "dominant" object. At the outset, there is a lump of clay and no statue, then when the statue is formed there is a statue but no lump, and when it is crushed there is again a lump but no statue. This position,

among philosophers discussing constitution, there are already some proposals for the application of this particular view to the topic of the nature of groups. The coincidence view answers the paradox sticking with the intuition that David and Lump are not the same objects, they sustain a relation of constitution rather than of identity. The quest for those adopting this view is to explain what a relation of constitution is.

The guideline for a discussion on constitution is the consideration that both objects share a great deal of the same properties. The most striking are the place and time as we already saw, but they also share the same weight, color, shape, etc. Nonetheless, they do not share other properties, like being a lump, which is a property of the lump and being a statue, which is a property of the statue. It is also often argued that the statue has esthetical properties that the lump does not have. The constitution relation should explain these objects' shared features while assuming that they are distinct objects. The most plausible way to accommodate these intuitions is to say that constitutive relations are irreflexive and asymmetric. Irreflexivity entails that the lump does not constitute the lump and that the statue does not constitute the statue. Asymmetry entails that the lump constitutes the statue whereas the statue does not constitute the lump. These properties of the constitution relation indicate that there is a dependence between the entities involved. There is no statue without the lump, while the lump might exist without the statue.

Thompson's (1998) approach to the definition of constitution explores further relations between the lump and the statue. She notes that there is a special relation those two objects maintain with their parts. A particular portion of clay, a lump, will not be the same portion of clay, the same lump, if some clay is extracted from it. Now imagine that a statue made of clay, therefore a portion of clay, is being transferred from the British Museum to the Vatican Museum and, in the process of transporting it, the nose of the statue breaks. In this scenario, the statue remains the same object, whereas the lump seems to be one in the British Museum and other in the Vatican Museum, since a part of the British Museum's lump does not exist in the Vatican Museum's lump. This distinct mereological relation that lumps and statues have with their parts bases Thompson's proposal for a definition of constitution. However, Evnine (2011) stresses that Thompson's proposal does not entail that the things that compose something also constitute it, although constitution can be defined in terms of composition.

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happily, admits the existence of both lumps and statues, and also preserves the principle of one object in a given place at a given time. But it has lumps flit in and out of existence in a weird way, depending on what they happen to make."

Uzquiano (2004, p. 149) presents Thompson's definition this way<sup>19</sup>: "if x materially constitutes y at a time t, then: (a) x and y share all of their parts at t, and (b) x has a part z at t that is necessarily a part of it at every time at which it exists and nothing that is part of z at t is necessarily a part of y at every time at which it exists". (a) captures the shared features of both objects. At a given time, the composition of the lump is the same of the statue, that is, every part of the lump is also a part of the statue. As saw earlier, at this particular time, the same composition of the lump and the statue entails that these objects share also the same space (and color, and weight, etc.).

The other condition is responsible for the introduction of the asymmetry between these objects. Condition (a) states that two objects are in a constitutive relation if they have all the same parts at a given time, condition (b) shows that the constituted object (the statue) is less dependent on its parts to its identity than the constituting object (the lump). Recall that a piece of the statue can break and the statue remains the same, showing that its identity is not strictly tied to its parts, whereas the lump will not be the same lump if a piece of it is destroyed, showing a narrower relation between the lump and its parts.

Uzquiano (2004) has applied the same reasoning to the nature of collective entities. Instead of lumps and statues, Uzquiano proposes a constitution relation of groups by sets. The interesting analogy pointed by Uzquiano is that groups are less dependent on its members (like statues on its noses or fingers) than the set of its member in a given time (or the amount of clay in a lump). In other words, we see changes in parts of constituted objects (such as groups and statues) that do not preclude their existence over time while these changes are decisive for the constituting object (like lumps or sets) persistence over time. More precisely, when there is a change of this sort, the constituted object remains the same but it becomes constituted by a distinct object. In the statue's case, the constituting object is a lump before the loss of the nose

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<sup>19</sup> Thompson's original formulation (1998, p.157):

"x constitutes y at t =<sub>df</sub>

(1)  $x < y @ t \ \& \ y < x @ t \ \&$

(2)  $(\exists z) \{z < x @ t \ \& \ \square (\forall T) (xE @ T \rightarrow z < x @ T) \ \& \ (\forall z') [z' < z @ t \rightarrow \diamond (\exists T) (yE @ T \ \& \ \neg (z' < y @ T))]\} \ \&$

(3) NOT- $[(\exists z) \{z < y @ t \ \& \ \square (\forall T) (yE @ T \rightarrow z < y @ T) \ \& \ (\forall z') [z' < z @ t \rightarrow \diamond (\exists T) (xE @ T \ \& \ \neg (z' < x @ T))]\}]$ "

Where " $x < y @ t$ " means "x is part of y at t", and " $xE @ T$ " means "x exists at t".

Evnine's (2011, p. 220) paraphrase of Thompson's definition might be helpful to understand it properly:

"x constitutes y at t =<sub>df</sub>

(1) x and y are parts of each other at t;

(2) some part of x at t is essential to x, but such that no part of it is essential to y;

(3) but not vice versa."

and another lump after it. In the case of groups, the constituting object is one set and, after a change in membership, another set constitutes the group later.

Epstein (2015, p. 145) presents Uzquiano's group-constitution with two conditions applying it to the case of the Supreme Court<sup>20</sup>:

- (1) A person  $x$  is a member of the Supreme Court at time  $t$  if and only if  $x$  is an element of  $S$ .
- (2) There is a person  $x$  such that: (a)  $x$  is a member of the Supreme Court at  $t$ , (b)  $x$  is necessarily a member of set  $S$ , and (c)  $x$  is possibly not a member of the Supreme Court, at some other time  $t'$  when the Supreme Court nonetheless exists.

Condition (1) here does the same job of condition (a) on Thompson's account. Thompson's condition (a) establishes the coincidence features involved in material constitution. Since both objects, the lump and the statue, share the same parts, they will present the same color, weight, shape, space, etc. Uzquiano's condition (1) establishes a coincidence between groups and sets, namely, the coincidence of every element of a particular set also possessing the property of being a member of a specific group at a given time.

Condition (2) aims to exhibit an analogical relation between sets and groups on one hand and lumps and statues on the other. The important analogy here is how constituting objects (lumps and sets) are highly tied to its parts whereas constituted objects (statues and groups) are more loosely tied to its parts. Condition (2) claims that, when an individual is a member of a group (the Supreme Court, for instance), she necessarily is a member of a set but she is not a necessary member of the group. This shows that the constituting object (the set) necessarily has this individual as an element whereas the constituted object (the group) might exist without this individual as a member. To clarify this particular relation, Uzquiano (2004, p. 149) formalizes it in the following way:

- Breyer is a member of the Supreme Court in August 2002  $\wedge \diamond \exists t'$  (The Supreme Court exists @  $t' \wedge \neg$ (Breyer is a member of the Supreme Court at  $t'$ )),  
 but:  
 $Breyer \in \{Rehnquist, Stevens, O'Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer\} \wedge \square (Breyer \in \{Rehnquist, Stevens, O'Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer\})$ .

This analysis of Breyer's membership in The Supreme Court shows that this particular justice is not an essential element of The Supreme Court, since this particular group could persist over time without Breyer being a member. However, Breyer is an element of the set that constitutes

<sup>20</sup> Here is the original formulation:

"S group-constitutes G at  $t = \text{def:}$

(1)  $\forall x (x \in S \leftrightarrow x \text{ is a member of } G @ t)$

(2)  $\exists x [x \text{ is a member of } G @ t \wedge \square (x \in S) \wedge \diamond \exists t' (G \text{ exists @ } t' \wedge \neg (x \text{ is a member of } G @ t'))] \vee$

$\exists x' [\neg (x' \text{ is a member of } G @ t) \wedge \neg \diamond (x' \in S) \wedge \diamond \exists t'' (x' \text{ is a member of } G @ t'')]$ " (UZQUIANO, 2004, p. 150).

The Supreme Court in August 2002, and, given the nature of sets, Breyer must be an element of a set if he belongs to it.

Epstein criticizes Uzquiano's account for not being able to spell out a distinction between coincidence and constitution. When applying his group-constitution definition to the Supreme Court case, Uzquiano (2004, p.149) asserts: "for each time  $t$  at which the Supreme Court exists, there is a set of individuals  $S$  that is then coextensive with it, but which, unlike the Supreme Court, has all of its elements necessarily". This passage highlights that Uzquiano's definition of group-constitution is only able to demonstrate a coincidence between groups and sets in a given time, but does nothing to enlighten a notion of constitution or explain how sets are objects capable of constituting groups.<sup>21</sup>

A similar problem is noted by Evnine (2011) criticizing Thompson. He points out that in earlier versions of her position; Thompson (1983) claimed that (a) should suffice for a definition of constitution. She was aware that this would render constitution a symmetric relation, that is, not only the lump constitutes the statue but also the statue constitutes the lump. A similar problem arises here because the first condition just establishes coincidence relations. Particularly in Thompson's view, it is a spatial coincidence. Thompson's condition (a) settles coincidence of objects by means of coincidence of its parts. But parthood is not a primitive notion for Thompson; she thinks that  $x$  is a part of  $y$  if and only if the space occupied by  $x$  at  $t$  is part of the space occupied by  $y$  at  $t$ . Thus, parthood coincidence entails spatial coincidence. But this is not very illuminating for explaining constitution, as Evnine (2011, p. 224) says:

If parthood is understood in terms of spatial inclusion, then all [(a)] contributes to a definition of constitution is that constituting and constituted objects must be co-located at the time of their relation. While it is certainly incumbent on a definition of constitution to entail this result, by itself it tells us nothing about what is going on metaphysically. We know the statue and the clay are co-located. In saying that the statue is constituted by the clay we want some further insight into the situation.

Evnine is just criticizing condition (a); this move still leaves open the question whether the other condition, establishing the asymmetry relation, can solve the problem.<sup>22</sup> Following

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<sup>21</sup> Epstein also notes that, given the assumptions that elements of sets do not fluctuate but members of a group do, condition (2) is derived from (1), rendering (2) idle to the definition and masking important elements as mere background assumptions. Here is Epstein's (2015, p. 146) proof: "Three principles are in the background: (i) sets cannot change their members, that is, for all sets  $S$  and all objects  $x$ , if  $x$  is an element of  $S$ , then necessarily  $x$  is an element of  $S$ ; (ii) the Supreme Court can change its membership: For every object  $x$  there is possibly a time  $t'$  such that the Supreme Court exists at  $t'$  and  $x$  is not a member of the Supreme Court at  $t'$ ; (iii) the Supreme Court has some members at  $t$ . Therefore, by (iii), there is a person  $x$  who is a member of the Supreme Court at  $t$ , who by (1) is also a member of  $S$ , and who by (i) is necessarily a member of  $S$ , and yet who by (ii) might not be a member of the Supreme Court even at some time it exists. This is just (2)."

<sup>22</sup> Evnine does not think that asymmetry conditions can render Thompson's account successful. He notes that a plain postulation of (2) [some part of  $x$  at  $t$  is essential to  $x$ , but such that no part of it is essential to  $y$ ] would invite a counter-example that could be blocked with the postulation of (3) [but not vice versa]. The structure of the counter-example is that it seems possible that if  $x$  and  $y$  were parts of each other, then "(...) the ordered pair  $\langle x, y \rangle$ "

Epstein's attack on Uzquiano's approach, it might be suggested that just positing an asymmetry condition is insufficient for the explanation of the constitutive relation. It is not clear how this asymmetry can illuminate what really is for something to constitute another object. If some account could provide an explanation to why constituting and constituted objects relate differently to their parts, we could have a proper account of the constitutive relation.

Adopting explanation as the central aspect of constitution, Epstein offers an alternative account. His proposal also stems from a proposal on the material constitution debate. Particularly, Epstein starts his proposal inspired by Doepke's (1996) position. Doepke's idea is that material constitution relation should be elucidated by focusing on the appropriate explanation that the constituting object (lumps and sets) confers to the existence and persistence of the constituted object (statues and groups). Wasserman (2004, p. 700) presents Doepke's proposal in the following way:

The Explanatory Analysis of Constitution (EAC):  $x$  constitutes  $y$  at  $t$  if and only if there is some property  $F$  such that:

- (i)  $x$  materially coincides with  $y$  at  $t$ ;
- (ii)  $x$  is accidentally  $F$  at  $t$ ; and
- (iii) the fact that  $x$  is  $F$  at  $t$  explains the existence and persistence conditions of  $y$  at  $t$ .

The core aspect of Doepke's proposal is the explanatory relation constituting objects have with constituted objects. The element that provides this explanation is a property held by the constituting object. This property should be able to explain the existence and persistence of the constituted object. It should be noted that no property of the constituted object is relevant for the constituting persistence, that is, these objects' relation should be asymmetric.

Doepke considers his proposal a successful alternative, since the explanatory relation could provide the fundamental distinction between constitution and coincidence. When the lump constitutes the statue, facts about the lump can explain facts about the statue. However, it

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might satisfy (2) with respect to one part, while  $\langle y, x \rangle$  might satisfy (2) with respect to a different part. In such a case, we would be back with symmetrical constitution. The case Thomson gives of this situation is this. Let  $A$  be the fusion at  $t$  of my chair with its left front leg and  $B$  be the fusion at  $t$  of my chair with its right front leg.  $A$  and  $B$  occupy the same space at  $t$ . But since a particular leg is not essential to a chair (that is, a given leg could be replaced and the chair continue to exist), the left front leg is essential to  $A$  but not  $B$ , while the right front leg is essential to  $B$  but not  $A$ . The addition of (3) allows us to avoid the unwanted implication that  $A$  and  $B$  constitute each other. It entails that neither constitutes the other which, as Thomson says, seems to be intuitively the right thing to say about the example" (EVNINE, 2011, p. 223).

Based on the need of the introduction of (3) to respond to that kind of counter-example, Evnine (2011, p. 224) creates another counter-example to Thompson's proposal as a whole: "It would be a counter-example to her theory that it implied that the fusion of my chair and its left front leg constituted the fusion of my chair and its right front leg even if the converse were not also true. If this is so, however, then the addition of (3) does not save her definition. For let  $A$  be, as before, the fusion of my chair with its left front leg and  $C$  be simply my chair. Then according to the full definition, including (2) and (3), it turns out that  $A$  constitutes  $C$  at  $t$ . The fusion and the chair occupy the same space at  $t$  and hence are parts of each other; the fusion has a part that is essential to it, the chair's left front leg, that is not essential to the chair; and there is no part that is essential to the chair but not to the fusion. But obviously the fusion does not constitute the chair."

is not clear at all how to identify the particular property of the constituting object that can explain the relevant facts (existence and persistence) about the constituted object and how this explanation works. Epstein considers that Doepke's proposal is too demanding. It is wrong to posit that some property (fact) about the constituting object can explain central metaphysical facts about the constituted object such as existence and persistence.

Epstein's (2015) position stems from the central insight of Doepke's proposal, that explanation is the core concept to be addressed in cases of constitution. However, he tries to precise what explaining means. In order to do so, he applies the grounding relation: "What is distinctive about a constitutes b is that certain facts about a ground a certain fact about b" (EPSTEIN, 2015, p. 148). Lowe and Tahko (2015) characterize grounding as *metaphysical explanation*:

(...) when some x is grounded in some y, it is usually thought that y explains x. Moreover, the status of y is generally thought to be somehow prior to that of x—grounding is typically understood to express priority between things. For instance, we might say that the members of a set are prior to the set itself; the existence of the set is grounded in its members. Or to take a more concrete example, the existence of any given composite object is grounded in the existence of its parts.

Epstein characterizes grounding as *metaphysical reason*. His presentation of grounding compares different uses of the term *because*. Take these two sentences: "The house burned down because John leaked the gas" and "The house is burning because the door, the walls, and the roof are burning". In the first sentence, *because* denotes causation. Causation is not grounding, but grounding is like causation: "just as causation links the world across time, grounding links the world across levels. Grounding connects the more fundamental to the less fundamental, and thereby backs a certain form of explanation" (SCHAFFER, 2012, p. 122). In the second sentence, the fact that the door, the walls and the roof are burning grounds, is a metaphysical reason for (metaphysically explains), the fact that the house is burning. Causation indicates a temporal dependence; first John leaked the gas, and then the house burned down. Grounding suggests a hierarchical but synchronic relation between metaphysical facts. Bliss and Trogon (2014) make a similar move to motivate their discussion on grounding with the following example:

Suppose you claim that there is a labor strike due to the fact that the truck drivers are refusing to work and instead picketing outside their workplace. In making this claim, you're not saying that for there to be a labor strike just is for there to be truck drivers who are engaging in these particular activities, for strikes can involve workers with different occupations, and there are different ways of striking (e.g., workers might go to work but carefully follow all safety regulations so as to impede their productivity). Nor are you claiming that the activity of the truck drivers concurrent with the strike causes there to be a strike. A causal explanation of the strike instead would appeal to certain antecedent events such as how their employer has allotted payroll deductions and benefits. Finally, you aren't merely claiming that there is a necessary connection

between the concurrent activity of the truck drivers and the existence of a labor strike. Instead, you're claiming that the fact that they're refusing to work and picketing outside their workplace explains why there is a strike in some metaphysically significant sense.

Metaphysical grounding has much in common with Doepke's proposal, namely, explanation is the core feature for both theories. Epstein and Doepke believe that explanation could be the element that is lacking in mere coincidence for something to count as constitution. However, Doepke's proposal seems very demanding, in the sense that one specific property from the constituting object should suffice for the explanation of two important elements of the constituted object such as existence and persistence. Epstein (2015, p. 149) adopts the same spirit, with a less demanding relation:

(...) constitution is not about one thing being ontologically related in the right way to another thing's existence, or to another thing's persistence. Rather, it is about the stuff of one thing being part of the metaphysical reason that another thing is made up of the stuff it is. The set of people that constitutes a group can do some explaining of facts about the group itself. But there are many facts about the group it does not explain.

Epstein's proposal of constitution is lighter than Doepke's since it does not settle which features of the constituted object might be explained by a fact about the constituting object.

I think Epstein is on the right track and grounding might be a better way to talk about constitution. However, he tries to preserve some positions from Uzquiano's approach that do not make sense. Epstein focuses a lot of attention in the fact that: "The Supreme Court was constituted by the set {Rehnquist, Stevens, O'Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer} in 2002."<sup>23</sup> The first problem here is indicated by Epstein (2015, p. 145) himself when discussing Uzquiano's approach:

Groups are not identical to sets, but they are constituted by sets. To be honest, I am not confident that this is the best decision. Just as it is odd to identify a group with a mathematical object, it is similarly odd to have an object like a group constituted by a mathematical object. On the other hand, sets are precise, at least. Furthermore, whatever sorts of objects do constitute groups, they will be very similar to sets, since sets resemble lumps in many ways. So, without putting too much stock in it, I will follow Uzquiano in this choice.

Indeed, Epstein follows Uzquiano in his own proposal. This decision is at odds with his own claim that: "A group is a thing constituted by and only by individual people" (EPSTEIN, 2015, p. 133). Sets are not individual people. But the relation of impure sets (sets which elements are not only sets, that is, sets that have concrete objects as elements) with its elements is not clear. Impure sets might inherit their properties from their elements, so I will not pressure this point

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<sup>23</sup> I am using the set of 2002, adopted by Uzquiano and presented earlier. Epstein updated the set in his (2015): {Alito, Breyer, Ginsburg, Kagan, Kennedy, Roberts, Scalia, Sotomayor, Thomas}. Nowadays, the Supreme Court has only eight members, since the death of Scalia on February 13, 2016.

further. I just want to suggest that a proper constitution fact should make reference to the relation a group has with its members and not a set of its members. Adopting this consideration, the fact about the Supreme Court's constitution should be: "The Supreme Court was constituted by Rehnquist, Stevens, O'Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, and Breyer in 2002."

But I think that there is another, more fundamental problem with this specific fact about the Supreme Court's constitution. Following his statement that groups are constituted solely by individual people, Epstein (2015, p. 133) offers a list of examples of such entities:

The Supreme Court is a group, as is the United States Senate. The president's cabinet is a group, as is his family. The faculty of Tufts is a group, the American people is a group. So, too, is the workforce of Starbucks and the American tax bureaucracy. The proletariat is a group, the bourgeoisie is a group. The wealthy make up a group, as do the poor, senior citizens, and the mob storming down the street. Still, far from everything in the social world is a group. Money is not a group, stock options are not groups, nor are restaurants, borders, or promises. Corporations and universities are not groups, though their boards, workforces, faculties, and student bodies are.

The important aspect of this list is what does not configure a group. There are obvious social kinds that are not groups such as money, stock options, borders, etc. However, it is not so obvious that corporations, universities, and restaurants are not. These collective entities seem not to be constituted solely by individuals. Besides faculties and student bodies, universities have a physical structure, legal authorization to issue degrees, etc. If the non-exclusivity of these collective entities' constitution by individual people is the criterion being adopted, then it is not clear that the Supreme Court is a group. It seems to me that the Supreme Court is more similar to corporations and universities than to families and faculties. It is an institution, a social object that is not exclusively constituted by individuals.

In order to examine this further, let us get back to Epstein's analysis of the fact: "The Supreme Court was constituted by the set {Rehnquist, Stevens, O'Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer} in 2002". Epstein's investigation of this particular fact leads him to point out the groundings of it. To identify grounding facts of this particular fact about the Supreme Court's constitution, Epstein makes a series of considerations about criteria of membership of this group, more specifically, which conditions someone might satisfy in order to be a justice of the Supreme Court. Epstein sets a strategy considering that those criteria should contemplate (i) conditions for someone to become a member of the group, (ii) conditions for some member to remain as a member of the group, and (iii) conditions for someone to lose the property of being a member of the group. The idea is that, by tracking these conditions, we will be able to spell out which facts should be relevant to determine who the members of the Supreme Court are.

Epstein ends up offering a tentative list of all facts that should (collectively fully) ground the fact that “the Supreme Court was constituted by the set {Rehnquist, Stevens, O’Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer} in 2002”: “Facts about Rehnquist, Stevens, O’Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer on 2002 and earlier”; “Facts about presidents of the United states on 2002 and earlier”; “Facts about the United States Senate on 2002 and earlier”; “The existence of the Supreme Court on 2002”; “The failure of others to satisfy membership conditions in 2002”.

I think that Epstein misses the point here. The fatal flaw is being carried away by Uzquiano’s account once again. I think that the same criticism Epstein raised against Uzquiano can be employed against his own analysis of the fact that “the Supreme Court was constituted by the set {Rehnquist, Stevens, O’Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer} in 2002”. Epstein’s strategy to explain constitution in terms of membership is, actually, a strategy to explain constitution by means of composition. Against this strategy, I have already presented arguments to show that this is an unenlightening way to develop an account of constitution; it simply does not explain what it should. Getting back to Epstein’s own proposal of constitution, we could ask which facts about the Supreme Court the constituting fact explains. The answer shall be that facts about the constituting set partially explain the fact about the membership of the Supreme Court, and that is just the explanation of composition.

It should be noted that this answer has the qualification that facts about the constituting set will only partially explain the fact about the membership of the Supreme Court. This might depend on the transitivity of grounding.<sup>24</sup> If constitution should be defined in terms of grounding, it is some sort of grounding and Epstein searched for a lot of facts that should ground the fact that “the Supreme Court was constituted by the set {Rehnquist, Stevens, O’Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer} in 2002”. Therefore, there are two layers of grounding relation, one that grounds the fact being analyzed and the grounded fact about constitution amounts to the other layer, since, given Epstein’s definition of constitution, constitution also states a grounding relation.

This multi-layered structure could clarify why Epstein makes a weaker claim that constitution is a relation of partial explanation. However, if this is right, it turns out that the fact that “the Supreme Court was constituted by the set {Rehnquist, Stevens, O’Connor, Scalia,

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<sup>24</sup> Transitivity of grounding, just like transitivity of causation, is an intuitive assumption, but it has been contested. See Schaffer (2014) for arguments against transitivity in grounding, and Hall (2000) for counter-examples to transitivity in causation. I take that transitivity holds for the case being explored; therefore, my point may hold without a truth of general transitivity for grounding.

Kennedy, Souter, Thomas, Ginsburg, Breyer} in 2002” is false; since there are other facts that must be taken into account in the constitution relation. Or the fact is true, and constitution is a very uninformative relation, once we could also say that “the Supreme Court was constituted by facts about Rehnquist, Stevens, O’Connor, Scalia, Kennedy, Souter, Thomas, Ginsburg, Breyer on 2002 and earlier”; “the Supreme Court was constituted by facts about presidents of the United states on 2002 and earlier”; “the Supreme Court was constituted by facts about the United States Senate on 2002 and earlier”; etc. This could be the case since all of them partially explain facts about the Supreme Court and, specifically, partially explain facts about the membership of the Supreme Court.

To sum up, Epstein seems to make the same wrong move of tying together constitution and composition. This strategy turns out to be insufficient since there is nothing more being explained besides composition; composition is already explained by parthood when we talk about material objects and membership when we are interested in groups. Epstein follows Doepke’s proposal by recasting constitution in terms of explanation; however, he ends up setting constitution as explanation of membership (therefore, just an explanation of composition) or being so vague that lots of things constitute something, if we take that constitution should be just that certain facts about the constituting object (partly) ground some fact about the constituted object. In other words, Epstein’s weaker version of constitution as explaining just transforms constitution in any kind of grounding.

Nonetheless, I believe that this second alternative shall be fruitful. Constitution might be more complex than discussions on material object portrait. Perhaps we must take into account more than the lump in order to constitute the statue, just like we should consider the President, and the Senate, besides the set of justices, in order to grasp the constitution of the Supreme Court.

On the other hand, I think that Doepke was on the right track, signaling that those essential features of existence and persistence should especially be addressed by an account of constitution. The weaker demand proposed by Epstein seems too weak. Making my point clear, I think that grounding can be an adequate tool to spell out constitution, but constitution might be the explanation of properties such as the existence and persistence of the constituted object.

This section did not aim at providing a definitive explanation for group constitution. The discussion suggests that this is an ongoing investigation and I pointed out some evidence that it might be on the right track. The inexistence of a robust and definitive account of group constitution is not enough to make us doubt that such kind of entity exists. Difficulty in explaining statues does not make us doubt that they exist. The same should hold for groups. We

have plenty of evidence that favors the existence of ordinary objects that are constituted in ways we do not fully understand. Groups are also pervasive in our daily experiences: you go to the university; have a dinner with your family; obey the law of your country; etc. There is no reason to be more skeptical about groups than other kinds of constituted objects.

## 2.2 THE PROBLEM OF ACTION INDIVIDUATION

In this section, I will present the action individuation problem with special attention to Goldman's position in the debate. This is an interesting problem because it might shed some lights on collective action. Particularly, theorists aligned with Goldman in this debate tend to pay a little more attention to cases of aggregate action. A simple example of an aggregate action is my action of typing *oar*. This action is composed of smaller actions, namely, typing *o*, then typing *a*, and, finally, typing *r*. This kind of action seems important to discussions on collective action given that, generally, actions ascribed to collective entities are composed of individual contributions from the entities' members. This is the main motivation to adopt Goldman's side in the individuation of action problem, considering that this approach might be fruitful for collective action theory.

Albeit its importance for collective action theory, this section will be concerned only with the problem of individuation for individual action. The next section (2.3) will be devoted to discussing how it can contribute to collective action theory. A curious historical fact is that the individuation of action problem aroused in the 1970's and 1980's, but by the 1990's this problem has been set aside. The main reason given for this is that the problem of action individuation does not seem fruitful for the core topics of action theory (GINET, 1990; MELE, 1997). This view argues for an independence of action theory's main topics, such that you do not need to take a stand in a particular issue in order to develop a contribution in another topic.

Following this sort of independence argument, discussions on the field tended to remain neutral about which account of action individuation should be adopted and few contributions on the problem continue to be published. Consequently, the discussion of this topic is mainly located in the 1970's and 1980's. I will not provide motivations in defense of action individuation importance for the field as a whole, i.e. I will not provide any argument against independence in the philosophy of action.<sup>25</sup> However, this work is based on a particular

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<sup>25</sup> For a more straightforward defense of individuation of action importance, see Ulatowski (2008) and Schweikard (2011).

approach to the problem. The general claim here is that it is fruitful for collective action discussions.

Lowe (2003) suggests that philosophers gave the wrong name to the problem. Explicitly referring to Davidson, he says that what is at stake in this discussion is a problem of *identity criteria* and not properly a *principle of individuation* proposal. Lowe's characterizes the problem of individuation as the question of what makes an object the object it is: "whatever it is that makes it one object, distinct from others, and the very object that it is as opposed to any other thing" (LOWE, 2003, p. 75). Whereas the criteria of identity being the informative and non-circular principle of the form: "If x and y are Ks, then x is identical with y if and only if x and y stand in relation R to one another" (LOWE, 2003, p. 76). He says that it is not clear how these two problems are related.

Despite this more refined picture of metaphysical individuation, to present the specific problem of action individuation, a simple case might be enough: "suppose that John (1) moves his finger, (2) pulls the trigger, (3) fires the gun, and (4) kills Smith. Are there four distinct acts that John has performed, or are all of these one and the same act?" (GOLDMAN, 1970, p. 1). This question can be rephrased this way: Did John perform four actions? Or did he only perform one action, of which four descriptions have been given?

The first clear response for these questions came from Donald Davidson.<sup>26</sup> His answer aims at tying all these descriptions together by means of an identity relation they seem to hold: "But what is the relation between my pointing the gun and pulling the trigger, and my shooting the victim? The natural and, I think, correct answer is that the relation is that of identity" (DAVIDSON, 1967, p. 84). Davidson thinks that the only appropriate relation these descriptions can maintain is a relation of identity. If there is an identity relation between these descriptions, there must be only one action being performed.

In later works, when Davidson (1971) was pressed to locate where the action is, he argued that the *real* action is the event that amounts to the *primitive action*. The point is that all those descriptions are referring to the same event, the primitive action. Davidson believes that this is a common feature of language, to describe events in terms of their causes or effects.

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<sup>26</sup> The *Identity Thesis* is frequently attributed to Anscombe (1963) as well. In her book, she provides an example that can be summarized as follows: "The example is of a man who is pumping water into a cistern which supplies the drinking water for a house. There are many ways in which what he is doing can be described, but only some of these will be descriptions of his intentional actions. Anscombe comes up with four such descriptions: moving his arm up and down (A), operating the pump (B), replenishing the water supply (C) and poisoning the inhabitants (D). Does this give us four actions, or only one?" (ANNAS, 1976, p. 252). Annas tries to distinguish Anscombe's and Davidson's accounts and raises some doubts to the transposition of attacks on Davidson's individuation to Anscombe's individuation. I take no part in this discussion.

Therefore, in John's shooting case, the *real* action is the movement of his finger, however, people tend to redescribe this particular event with its consequences, saying that "John pulled the trigger", "John fired the gun", and "John killed Smith".

Goldman (1970) challenges Davidson's answer to the problem. All those four descriptions seem to respect an order of causation. It would seem very odd to say that John's killing Smith caused the gun to go off. But it seems perfectly fine to say that John's pulling the trigger caused the gun to go off. The causation order seems to indicate that some descriptions have properties that other descriptions do not have. If all those descriptions should preserve the relation of identity, we would expect all of them to instantiate the same properties. Since different descriptions seem to have different properties, Goldman proposes a theory where descriptive distinctions are more profound than linguistic ones: this case do not present an action that have different descriptions, this case presents a set of distinct actions.

Trying to make his counter-example clearer, Goldman (1970, p. 2-3) uses another case: "Suppose that John is playing the piano, and that his playing causes Smith to fall asleep while also causing Brown, who was already asleep, to wake up. John has performed the following acts: (1) he has played the piano, (2) he has put Smith to sleep, and (3) he has awakened Brown." The same kind of causation problem occurs in this example. (3) and (2) were caused by (1) but neither (1) nor (2) were caused by (3) and neither (1) nor (3) were caused by (2). Again, this is a problem for the identity thesis. If all those actions should maintain the identity relation, we should expect them to have the same properties, but they clearly do not have the same properties.<sup>27</sup>

Goldman also backs up his account with a linguistic finding: the use of *by* in connecting actions. We usually say things like: "John turns on the light *by* flipping the switch"; "Smith fills

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<sup>27</sup> This critique is more stunning if we take Davidson's own criterion for the identity of events. Davidson (2002, p. 179) defines identity of events in the following way: "(...) events are identical if and only if they have exactly the same causes and effects.

(...) (x = y if and only if ((z) (z caused x ↔ z caused y) and (z) (x caused z ↔ y caused z))."

Goldman's counter-example shows exactly that actions discussed in the problem of action individuation do not have the same causes and effects, quite the contrary; they are related by causal relation. Davidson is aware of this problem and seems to blame language for the confusion. The real problem is that we tend to describe events in terms of their causes and effects: "It is a matter of the first importance that we may, and often do, describe actions and events in terms of their causal relations—their causes, their effects, or both. My poisoning of the victim must be an action that results in the victim being poisoned; my killing of the victim must be an action that results in the death of the victim; my murdering of the victim must be an action that results in the death of the victim and also an action that was caused, in part, by my desire for the victim's death. If I see that the cat is on the mat, my seeing must be caused, in part, by the cat's being on the mat. If I contract Favism, I must contract haemolytic anaemia as a consequence of eating, or otherwise coming in contact with, the Fava bean. And so forth. This tendency to identify events in terms of their causal relations has deep roots (...). But it should not lead to a serious difficulty about the dates of events" (DAVIDSON, 2002, p. 178).

the bucket *by* operating the pump”; “Mary acquires her house *by* signing the contract.”<sup>28</sup> It seems that our common usage of the expression *by*, when used to link two actions, tends to explain a *way* or *method*. The turning on of the light is explained *by* the flipping of the switch; the filling of the bucket is explained *by* the operation of the pump, etc.

The importance of these examples for the individuation of action dispute is that the use of *by* marks an *asymmetric* and *irreflexive* relation between actions. These characteristics of the *by* relation might be seen if we try to change the order of the actions: “John flipped the switch *by* turning on the lights”; “Smith operated the pump *by* filling the bucket.” In fact, these constructions seem odd. As the problem with the shooting case, we cannot change the order of the actions connected with *by*. The same conclusion follows: if those actions are not interchangeable, then they cannot be identical, and those descriptions do not refer to the same action. Taking the semantical role of the expression *by* as an explanation, it seems very clear that we cannot explain how John flipped the switch by indicating that he turned on the light nor explain how Smith operated the pump by saying that he filled the bucket. It also can be noted that *by* is a *transitive* relation. Take a pair of two sentences with *by*: “John turns on the light *by* flipping the switch” and “John flips the switch *by* moving his arm”. It is not odd to say “John turns on the light *by* moving his arm”.

Here I have presented the central question for the individuation of action problem. There are some actions that are related in a special way. When someone cooks the dinner and then washes the dishes there is some relation between those actions: the agent is the same, she washes the dishes that got dirty because of the dinner, those actions were performed at the same place (the kitchen), etc. However, contrary to whatever relation cooking the dinner maintains with washing the dishes, some sets of actions seem to have a rather distinctive relation. Goldman stresses the set of actions connected with the preposition *by*. When someone heals the ill by giving the ill a medicine, or rather prepared the medicine by making a ginseng infusion, these pair of actions seem to be related in a different way than the pair cook dinner and wash dishes. The nature of this particular relation is the crucial point of dispute in individuation of action.

There is a strong intuition that the agent who heals the ill by giving him a medicine did not give the ill a medicine and did *something else* that correspond to healing the ill. Giving the ill a medicine is so closely related to healing the ill that they might be the same action. This is the position taken by Anscombe and Davidson. Goldman raises some challenges to this

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<sup>28</sup> *In* is another preposition that seems to have the same linguistic role. We may say that: “*In* moving his queen to king-knight-seven, John checkmated his opponent”; “*In* flipping the switch, John turned the lights on”; “*In* operating the pump, Smith filled the bucket”.

interpretation of this particular connection of actions. In the following subsections, I will present Goldman's own explanation for this particular relation of actions.

### 2.2.1 Level-Generation

Goldman's proposal is constructed in order to solve a problem:

Explaining an action by giving an intention with which it was done provides new descriptions of the action: I am writing my name on a piece of paper with the intention of writing a check with the intention of paying a gambling debt. List all the different descriptions of my action. Here are a few for a start: I am writing my name. I am writing my name on a piece of paper. I am writing my name on a piece of paper with the intention of writing a check. I am writing a check. I am paying my gambling debt. It is hard to imagine how we can have a coherent theory of action unless we are allowed to say here: each of these sentences describes the same action (DAVIDSON, 1967, p. 85).

Here is a big challenge for Goldman. It cannot be denied that the collection of descriptions listed by Davidson shares a very special connection. For Davison, the only answer for this connection is the *identity thesis*: all those descriptions refer to the same action. Goldman refuses this solution to the problem, so it must provide an alternative account.

In order to explain the close connection between those actions, Goldman (1970) offers a theory of *level-generation*. Goldman stresses that the main intuition around the concept of level-generation is quite easy to get:

(...) the idea of level-generation, I think, is an intuitive or pre-analytic idea, implicit within our commonsense framework. To be sure, I have tried to streamline our commonsense notion by making certain technical stipulations; and I have introduced a technical vocabulary for dealing with the concept. Nevertheless, the idea of level-generation is implicit in our use of the phrase, "S did ... by doing ..." and in our use of the phrase, "S did ... in doing ..." That it is an intuitive notion is reflected in the fact that once a few examples of it are given, any ordinary speaker can readily identify numerous other cases that fall under the same concept (GOLDMAN, 1970, p. 38).

The main intuition that guides a rough conception of level-generation has already been seen: the use of the term *by*.<sup>29</sup> Our common usage of this preposition might guide our intuitions about level-generation. We already saw that *by* marks an asymmetric, irreflexive and transitive relation between actions. Before exploring the taxonomy of level-generation, it will be important to pay attention to temporal properties of this relation. Goldman states that level-generation (i) does not relate two *subsequent* actions. Therefore, they are done at the same time; nevertheless, (ii) they are not *co-temporal* actions.

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<sup>29</sup> Ginet (1990) also works with the use of the preposition *by* to propose another proposal of action generation (the GEN relation [general generating relation]): "the GEN relation is meant to capture what Goldman means by generation relations, though GEN is both wider and narrower in scope than Goldman's relations. The GEN relation obtains between those designators, which are connected in our ordinary speech by the 'by' preposition in various contexts" (PAPRZYCKA, 2012, p. 845-846).

No action in a pair of generational actions can be subsequent to the other. The expression *and then* (or *and later*) might capture what *subsequent* means. We can see its use in our everyday language: “I took a shower and then ate my breakfast”; “I went to the university and later to the café”; “I finished my paper and then saw the movie.” It is important to note that *and then* cannot replace *by*: “John flipped the switch and then turned on the light”; “Smith operated the pump and then filled the bucket.” The *and then* expression marks a deeper distinction between actions. They seem to be independent of one another. Davidson’s challenge might provide a clearer instance of the difference between *by* and *and then* expressions: “I wrote a check by writing my name” seems correct, while “I wrote my name and then I wrote a check” seems incorrect. The kind of relation that action generation maintains is stronger than a time relation such as subsequence.

Since neither of the actions of a pair of generational actions are subsequent to the other, actions that are related by level-generation might be done at the same time. But not all pairs of actions performed at the same time are generational actions. There are pairs of actions that are completely independent, but they just happen to be performed at the same time. We also have an expression that captures this kind of relation: *while also*. Goldman provides one example: S wiggles his toes while also strumming a guitar. We can think of others: “I cook while also wash the dishes”; “I was heading home on the train while also was eating my lunch”; “I read the paper while also drank tea”. Once again, trying to replace *by* with *while also* would result in odd sentences: “John flipped the switch while also turned on the light”; “Smith operated the pump while also filled the bucket.” Just as *and then*, *while also* seems to mark a harsher distinction between the actions being related. When we put together two actions with these expressions, they seem to be completely independent. So, level-generation (*by*) seems to be a stronger relation between actions, stronger than subsequence actions (*and then*) and accidentally co-temporal actions (*while also*).

Finally, there is the special case where actions are composed of a set of temporal parts (an action composed of a set of other actions done subsequently). Goldman gives us two examples of this kind of *aggregated action*<sup>30</sup>: (i) when you play a C-scale on a musical

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<sup>30</sup> This is Ginet’s term for any kind of action composition. He does not differentiate co-temporal actions, co-temporal compounds, and aggregates of temporal parts. This can be seen in his examples of aggregate actions: “S’s typing by at t was composed of two separate actions: S’s typing b at t and S’s typing y at t. S’s rubbing her head while patting her stomach at t was composed of two separate actions: S’s rubbing her head at t and S’s patting her stomach at t” (GINET, 1990, p. 20). Ginet (1990, p. 19) also observes that Goldman does not give a term to the kind of aggregate entity under discussion: “[Goldman] does allow that a sequence of actions can make up a single action, but it is unclear that his taxonomy has a name for the relation between such a sequence and the actions that make it up.”

instrument, you perform a series of smaller actions ordered by the relation of subsequence: you play the note C, and then D, and then E, and then F, etc. Each of these shorter actions is a temporal part of your playing the C-scale; (ii) driving a nail into a wall might require you to hammer it more than once. Each swing of the hammer will drive the nail a little bit into the wall. Each swing instantiates a temporal part. Unfortunately, Goldman does not make clear what relation these larger *aggregated actions* have with their smaller temporal parts. He just emphasizes that those are not level-generation relations, i.e. your playing note C is part of your playing the C-scale, but they are not in a level-generational relation; and driving the nail a bit is part of driving the nail into the wall, but the first does not level-generate the second (not even when considered together with other instances of driving the nail a bit).

It seems that the kind of constitutional relation small actions (parts) have with larger actions (whole) is some sort of *mereological sum*: “The sequence of these four basic acts constitutes a larger act, viz., S's swinging his hand four times (between  $t_1$  and  $t_4$ )” (GOLDMAN, 1970, p. 36).

This section thus presented an important temporal aspect of level-generation. We saw that this special relation between actions (*by*) occurs at the same time, but it does not imply that actions maintaining this relation are co-temporal (*while also*). The next four subsections will present all four categories of level-generation proposed by Goldman: (2.2.1.1) causal generation; (2.2.1.2) conventional generation; (2.1.2.3) simple generation; and (2.1.2.4) augmentation generation.

#### 2.2.1.1 Causal Generation

Causal generation was exemplified in our first example about the individuation problem, John's shooting case. It was also present in the case of turning the lights on, as well in the filling the bucket. This should indicate that causal generation might be the most familiar kind of level-generation or, at least, the most accepted kind (between those who partly agree with Goldman on the problem of individuation of action, there are some people that do not buy the whole package he offers, but this kind of generation is often accepted).

Causal generation examples are used by Goldman as the main counter-example against the *identity thesis*. When two acts are related by causation, it seems very strange to say that they are the same. John's shooting case provides three pairs of generational acts: (i) John moving his finger caused the trigger to be pulled; (ii) the pulled trigger caused the gun to fire; and (iii) firing the gun caused Smith's death. Cases of causally generated actions exemplify actions of

the form causing the event E (or bringing about the event E). Goldman (1970, p. 23) defines causal generation this way: “Act token A of agent S causally generates act-token A' of agent S only if (a) A causes E, and (b) A' consists in S's causing E”.

#### 2.2.1.2 Conventional Generation

The second category of level-generation is conventional generation. Goldman (1970, p. 25) describes it in the following way: “Conventional generation is characterized by the existence of rules, conventions, or social practices in virtue of which an act A' can be ascribed to an agent S, given his performance of another act, A.” The key feature of this kind of level-generation is the identification of a rule that enables the ascription of A' to an agent performing A. Games are clear examples of such circumstances. You cannot play with your chess pawn if you move it back or to its side. When people play chess, they do more than just moving their pieces randomly. In order to play the game, for a movement to be a valid movement, players must follow the rules of chess.<sup>31</sup> Besides conventional rules, like these present in games, Goldman also remarks normative rules. If we take a rule like “One should not break one's promises”, when someone breaks his promises (A), he is level-generating the action of doing what he ought not to do (A').

#### 2.2.1.3 Simple Generation

Goldman presents the third kind of level-generation, simple generation, contrasting it with the previous ones. On simple generation, there is no rule relating actions A and A', so it is not the same as conventional generation. And, there is no causal connection between A and an event E, so it is not a causal generation either. All it takes to A level-generates A' in a simple generation is the existence of certain circumstances C. Its contrast with conventional generation makes the point clearer: simple generation is like convention generation, but it lacks a rule. To make clear this distinction, Goldman (1970, p.27) goes back to the example of breaking a promise:

It does not follow from the definition of "doing what one ought not to do" or from the definition of "break one's promise" that breaking promises is something one ought not to do. Thus, the fact that S breaks his promise does not by itself imply that he does what he ought not to do. To get the required implication, we must add a rule to the effect that one ought not to break one's promises. In the example of simple generation,

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<sup>31</sup> This kind of level-generation seems based on rules very similar to Searle's (1995) general constitutive rule of institutional facts, “X count as Y in C”, mentioned in the Introduction.

however, no rule is presupposed. From the definition of "break one's promise" it follows that if S promised to do x and failed to do x, then he has broken his promise. Thus, given the 'circumstance' that S promised not to come home after 12:00 and given his act of coming home after 12:00, it follows that he has performed the further act of breaking his promise.

Let us see some examples of simple generation: (1) when S asserts that p (A), she is contradicting herself (A') if she previously asserted that not-p (C); (2) S asserting that p (A) level-generates S's lying (A') if S does not believe that p (C); (3) S's dangling a line in the water (A) level-generates S's fishing (A') if S desires, hopes or intends to catch a fish (C). Similar to (3), we also have: "The act of crouching behind a car, if done with the intention of preventing oneself from being seen, generates the act of hiding. And playing the piano, if done out of the desire to improve one's playing, generates the act of practicing the piano" (GOLDMAN, 1970, p. 27). This kind of case is important, because it shows how an intention can play a role in level-generation; this kind of case will be highlighted later on.

#### 2.2.1.4 Augmentation Generation

Finally, we have augmentation generation. This is a very specific kind of level-generation. The *augmenting* process is just the addition of some relevant fact or circumstance. The fact that the generating action (A) is not merely performed, but performed in a certain manner will suffice for the generation of another action (A'). This kind of level-generation is distinctive because it is the only kind of generation where the performance of the generated action (A') entails the performance of the generating one (A). Goldman provides some examples: (1) S's saying "hello" (A) level-generates S's saying "hello" loudly (A'); (2) S's running (A) level-generates S's running at 12 km/h (A'); (3) S's shooting a basketball (A1) and S's jumping (A2) (both at the same time) level-generate S's jump-shooting (A').

The third case is very important. It shows two co-temporal actions compounding another action by level-generation. We saw before that co-temporal actions, identified by the *while also* expression, do not relate by level-generation. The same occurs in this example, S's shooting (A1) and S's jumping (A2) do not level-generate each other. But, they (together) level-generate S's jump-shooting (A'). Our linguistic devices might elucidate the case: we can say that "S jumps while also shoots", since both actions are co-temporal, but "S jump-shoots while also jumps" or "S jump-shoots while also shoots" seems odd. Since S's jump-shooting is level-generated, the expression *by* should fit in linking generated and generating actions: "S jump-shoots by jumping and shooting".

It should be noted, however, that this is a special feature of co-temporal actions involved in this peculiar *compounding* relation to another action by augmentation. Standard cases of augmentation generation will not capture the use of *by*:

The concept of augmentation generation, as I have characterized it, does not mesh completely with the other three forms of generation. And I think that, in general, it is not intuitively as attractive as these other species of generation. The feeling that it is rather different from the other three species is supported by the fact that the preposition "by" is inapplicable in connection with it (GOLDMAN, 1970, p. 28).

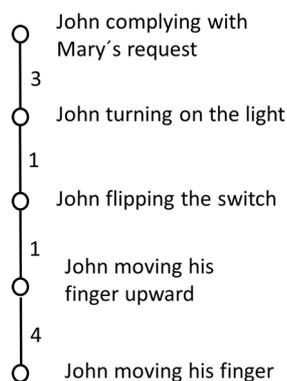
As this passage indicates, philosophers tend to resist the acceptance of this particular kind of level-generation. If causal generation is the most accepted, augmentation generation is the most rejected proposal of Goldman's framework.

### 2.2.2 Act-Trees

One interesting feature of Goldman's analytical tool of level-generation is that it enable us to draw diagrams of related actions. Goldman (1970) calls these diagrams *act-trees*. Act-trees can elucidate the kind of relation actions have with one another, providing additional clarification of what is a level-generation.

Let us start with a simple example: John turning on the light after Mary asking him to do so:

Figure 1 – Act-tree Example



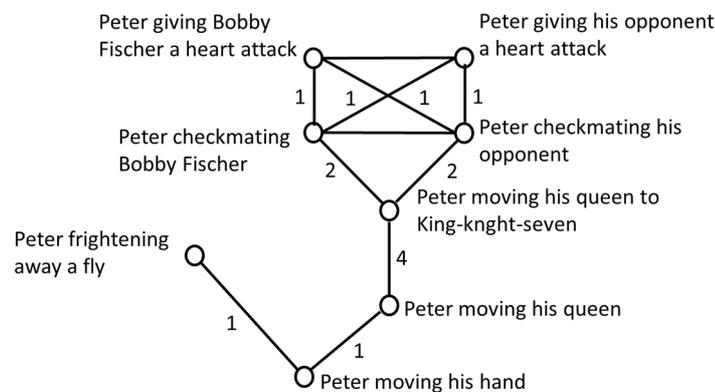
Source: Goldman (1970).

Goldman's example shows us that this action-tree is composed of five action-tokens related by level-generation. First, let us recall all the four categories of level-generation, once they are represented by the numbers in the figure: (1) causal generation; (2) conventional generation; (3) simple generation; and (4) augmentation generation. Figure 1 shows that the act-tree starts with a bodily movement, "John moving his finger". The specification of the manner the

movement was made level-generates “John moving his finger upward” by augmentation. John’s bodily movement aims to cause an event, the flipping of the switch, so “John flipping the switch” is causally generated by the upward movement of his finger. “John flipping of the switch” causes the lights to go on, therefore, “John flipping the switch” causally generates “John turning on the light”. Finally, given that this was a circumstance where Mary asked John to turn on the lights, Mary’s request (circumstance C) and John’s turning on the lights (A) imply that John complied with Mary’s request (A’) by simple generation.

More complex cases<sup>32</sup> reveal other important relations besides level-generation. Take, for instance, Peter checkmating his opponent in Figure 2:

Figure 2 – Complex Act-tree



Source: Goldman (1970).

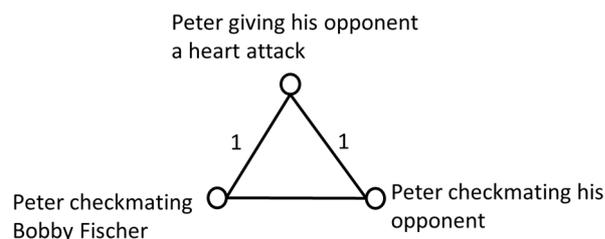
Figure 2 presents cases of *branching* and of same-level actions. Same-level actions are represented by the connection of two action-tokens with a horizontal line. In Figure 2 there are two pairs of same-level actions: (i) “Peter checkmating his opponent” is at the same level as “Peter checkmating Bobby Fischer”; and (ii) “Peter giving his opponent a heart attack” is at the same level as “Peter giving Bobby Fischer a heart attack”. The key feature of same-level actions is that they are not in an asymmetrical relation, so they cannot be in a level-generation relation.<sup>33</sup>

<sup>32</sup> One important observation about the limits of act-tree diagrams: “No actual act-tree diagram is a complete diagram of an agent’s behavior. This follows from the fact that, on my analysis of acts, a person performs indefinitely many acts at any time (at least whenever he is performing any acts at all)” (GOLDMAN, 1970, p. 33). This is the *fine-grained* characteristic of Goldman’s account that is derived from the adoption of Kim’s theory of events discussed in section 2.1.3.

<sup>33</sup> The same-level case is another point of the fine-grained theory that seems odd (along with the augmentation generation). It is very counterintuitive to regard two actions such as “Hitting the tallest man in the room” and “Hitting the wealthiest man in the room” as different actions when it is a fact that the tallest man in the room is the wealthiest man in the room. Same-level actions seem to be the same action with different descriptions, because what is being changed is just the individual concept for referring to a same object (*the wealthiest man in the room* = *the tallest man in the room*; *Bobby Fischer* = *Peter’s opponent*). Further evidence for the *sameness* of these action-tokens is that they have the same causes and will produce the same effects (i.e. they fit in Davidson’s criteria

An important consequence of same-level actions can be seen in figure 2: “we can stipulate that if A and A' are same-level act-tokens, then any act which generates A also generates A'; and any act which is generated by A is also generated by A'” (GOLDMAN, 1970, p. 31). So, when “Peter moving his queen to king-knight-seven” (X) level-generates, by conventional generation, “Peter checkmating his opponent” (A), it also level-generates “Peter checkmating Bobby Fischer” (A') since A and A' are same-level actions. The same goes for the causal generation of the same-level actions “Peter giving his opponent a heart attack” (B) and “Peter giving Bobby Fischer a heart attack” (B') because both of them were level-generated by A and A'. In order to show that same-level actions must have the same consequences, we could not have represented B'; then, we would represent both A and A' level-generating B, thus resulting in a new top for Figure 2 act-tree:

Figure 3 – Top of Complex Act-tree



Source: Author.

Going back for level-generation representations, Figure 2 shows two instances of *branching*. *Branching* refers to cases where one action level-generates two (or more) further actions. We already cover one instance discussing the same-level case (when “Peter moving his queen to king-knight-seven” level-generates both “Peter checkmating his opponent” and “Peter checkmating Bobby Fischer”), but *branching* is not an exclusive feature involving same-level actions. On Figure 2, the two first instances of level-generated actions were level-generated by the same action-token, given that: “Peter frightening away a fly” (A'1) and “Peter moving his queen” (A'2) were both level-generated by “Peter moving his hand” (A). The important feature of *branching* is that, although, A'1 and A'2 were level-generated by the same action-token A, they are not same-level actions. Even if we had represented both at the same height in the diagram, they would not be at the same level, unless they were connected with a horizontal line. A'1 and A'2 just happen to be both causally generated by A, but they are completely

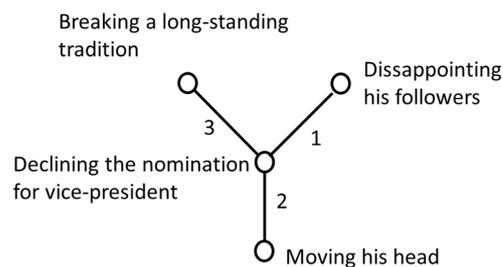
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of individuation of events, seen on note 27). One of the attacks the fine-grained approach suffers is exactly about this odd commitment with the proliferation of instances of actions.

independent actions. They do not share the symmetric relation that same-level actions do. A clear evidence for the latter point is that they can have different effects: “Peter giving his opponent a heart attack” is level-generated by “Peter moving his queen” but it is not level-generated by “Peter frightening away a fly”.

A further question is whether *branching* is an exclusive feature of causal generation. Figure 4 shows an example where different kinds of level-generation occur in a case of *branching*:

Figure 4 – Branching

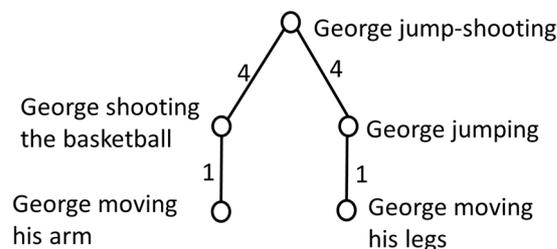


Source: Adapted from Goldman (1970).

In this example, a subject S moves his head signaling his refusal for the proposal of nomination for vice-president. His “declining the nomination” causally generates his “disappointing his followers” and simple generates his “breaking a long-standing tradition”. Therefore, not every *branching* necessarily occurs with causal generation.

Finally, we have two examples of act-trees dealing with temporal features of actions. Both cases will show two different sorts of composition schemas that will be fundamental for discussing collective action cases. First, let us look an example of co-temporal actions in Figure 5:

Figure 5 – Compound Generation Act-tree



Source: Author.

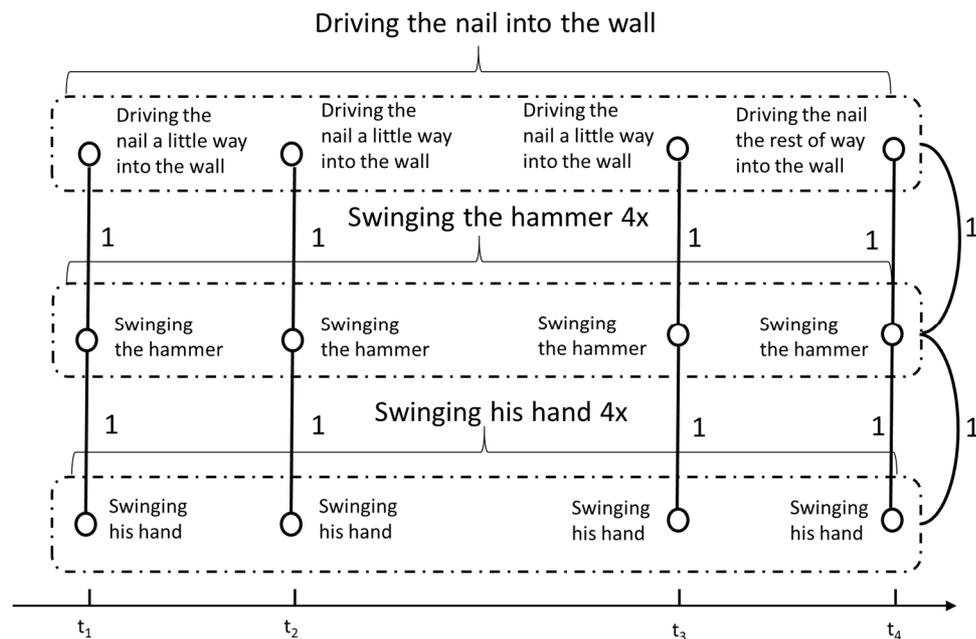
I already discussed this case when talking about augmentation generation. “George jump-shooting” (A’) involves “George shooting the basketball” (A1) *while also* “George jumping”

(A2). A1 and A2 are co-temporal actions; they are independent of each other but are executed at the same time. The confluent pattern observed here also appeared in the same-level actions discussion, but here we have a different kind of confluence. When we have a pair of same-level actions, their *sameness* entails that they will have the same causes and will generate the same consequences. This is not true with co-temporal actions. Figure 5 shows that the pair of co-temporal actions does not have the same cause. And, even though they are represented in the same height in the act-tree diagram, it does not mean that they are at the same-level (if they were at the same-level, they would be represented by a linking horizontal line). Actually, they are *level-indeterminate*.

We also could have completely independent co-temporal action-tokens, without any kind of confluent pattern denoted in the act-tree diagram. If I am cooking while also washing the dishes, I could present a diagram with two act-trees that happen at the same time but are completely independent of one another. My cooking might causally generate my spoiling a good piece of meat while my washing the dishes might causally generate my breaking a plate. So, it is possible to have two completely different act-trees that occur at the same time. Note that they would be different act-trees because there would be no confluence, no composition of another action-token generated by these two co-temporal actions; therefore, no confluence pattern would be observed in order to generate one large and unified tree.

The last example of act-tree diagram involves another kind of composition; this time there is no co-temporal actions level-generating another action, but there are smaller temporal parts being aggregated in a larger action. Figure 6 presents Goldman's example of someone driving a nail into the wall:

Figure 6 – Aggregate Action Act-tree



The important aspect of this kind of case is that the larger actions (such as “driving the nail into the wall”) are not level-generated from their temporal parts (every instance of “driving the nail a little way into the wall”). Unfortunately, it is not clear what kind of relation they bear. I take Goldman suggesting that it is a mereological relation (parts-whole relation). Nevertheless, there is a lot of level-generation occurring in this act-tree. If “driving the nail into the wall” is not level-generated by the combination of each instance of “driving the nail a little way into the wall”, it is level-generated by “swinging the hammer four times”, which is level-generated by “swinging his hands four times”. This level-generation relation between the larger actions is also observed between each of their temporal parts (smaller actions): “swinging his hand” level-generates “swinging the hammer” which level-generates “driving the nail a little way into the wall”.

### 2.2.3 The Place of Basic Action

In the previous sections I presented and elucidated Goldman’s main conceptual tool, level-generation. This concept should explain the relation some actions maintain with one another, providing a detailed framework to spell out the structure of action. The structure proposed by this theory turns out to be *foundationalist*; that is, it is based on something, there

is a basic element. Every act-tree starts from a basic action; therefore, every action (each element present in the act-tree diagram) must be related to a basic action somehow. Basic action is an originating class of actions:

whatever one does in the world at large must come, in one way or another, from one's body, especially from the movements of one's body (...) Examination of our recursive definition of an act reveals that at the bottom of any (complete) act-tree will be one or more basic act-tokens (GOLDMAN, 1970, p. 18; 46).

Starting from this fundamental item, Goldman (1970, p. 45) bases the very definition of act-token on the notion of basic act-token:

- (1) If A is a basic act-token, then A is an act-token.
- (2) If A is on the same level as an act-token, then A is an act-token.
- (3) If A is level-generated by an act-token, then A is an act-token.
- (4) If A is a temporal part of an act-token, then A is an act-token.
- (5) If A is a temporal sequence of act-tokens, then A is an act-token.
- (6) Nothing else is an act-token.

It is clear that the concept of basic action plays a decisive role on Goldman's account. However, it is not my purpose to present Goldman's conception of basic act-token here. The next chapter is exclusively dedicated to the discussion of this concept and I will return to Goldman's proposal in more detail in section 3.3.2. It is important to note that he defends a conception of basic action as bodily movements. The class of basic action-tokens is composed exclusively by bodily movements' act-types. This small section just aims to stress the central role that this concept has to the overall proposal: "The concept of a basic act has played an essential role in our analysis of intentional action, as well as in our recursive definition of an act-token" (GOLDMAN, 1970, p. 63).

#### **2.2.4 The Place of Intention**

Goldman agrees with the widespread notion that actions are fundamentally related to intentions. In his account, intentions are plans. However, rather than focusing on intention, Goldman (1970, p. 49) gives theoretical priority to *wants*:

I shall use the term "want" in a very broad way. In this use, wants need not be intense or emotion-laden; they need not absorb one's whole consciousness. Secondly, in my use of the term, wanting x is roughly equivalent with "feeling favorably toward x," "being inclined toward x" "being pro x," "finding x an attractive possibility," "finding x to be a 'fitting' or 'appropriate' possibility," etc.

Wants, basically, set a goal; they give the purposiveness for actions. However, generally our goals and objectives are not limited to basic actions, things that we can do directly, achieve immediately. This demands us to plan ways to achieve the desired goals by means of other actions. Establishing this means directed to the desired goal is the job of a plan:

[A]n action-plan consists of a desire (a predominant desire) to do some act A' and a set of beliefs (of greater or less certitude) to the effect that, if one were to perform basic act A1, this would generate (or be on the same level as) various other acts, including the desired act A' (GOLDMAN, 1970, p. 56).

With these concepts in mind, Goldman (1970, p. 57) believes that an adequate account of intentional action could be found in the following analysis:

Suppose S has an action-plan which includes acts A1, A2, A3, ... , An, where A1 is a basic act and  $n > 1$ . S wants to do An, and S believes (to some degree) of each of the acts A1, A2, A3, ... , An firstly, that it will either be generated by A1 or be on the same level as A1, and secondly, that it will either generate An or be on the same level as An. If this action-plan, in a certain characteristic way, causes S's doing A1; then A1 is intentional. And if some of the other acts A2, A3, ... , An are performed in the way conceived in the action-plan, then these acts are also intentional. All other acts on the (actual) act-tree are non-intentional.

Goldman's proposal of intention's nature has a reductionist vein. Intentions are composed of beliefs and desires. These sets compose action-plans and those action-plans have the distinctive feature of providing a criterion for the identification of intentional action. Bratman (1999a) stresses this point, identifying that Goldman gives a methodological priority to intentional action rather than the mental state of intention. Bratman argues that paying close attention to intentional action instead of intentions might lead us to overlook some fundamental features of our planning processes.

I am going to discuss the role and features of intentions in Chapter 4, arguing against this reductive view of intentions as belief/desire pairs. For now, it is just important to stress that Goldman's theory of action relies on wants (or desires) as a core motivation element. Besides that, in order to act, one agent must establish a plan. This plan is based on beliefs the agent has about how she is able to generate the desired action (bring about the goal expressed by her want). The last observation is that Goldman himself admits that his definition of intentional action is incomplete. And, especially important for this work, it lacks an explanation for cases of aggregation such as temporal parts and compound generation:

[This definition] is not a complete definition of intentional action. It does not give us a means of deciding, with respect to every act-token, whether or not it is intentional. This is because it fails to deal with act-tokens which are temporal sequences of basic acts (or act-tokens generated by sequences of basic acts), or with act-tokens which are temporal parts of basic acts (or act-tokens generated by parts of basic acts), or even with act-tokens that are jointly generated by two or more co-temporal basic acts (GOLDMAN, 1970, p. 63).

With this brief report on the concepts of basic action as bodily movements and intention as action-plans made to attain a want, it is possible to have an overview of Goldman's account of action. These two topics will be discussed in more detail in this work. Chapter 3 will deal exclusively with basic actions and Chapter 4 will bring discussions about the nature of intention.

This part of the present Chapter (2.2) aimed at presenting Goldman's level-generation proposal. The next section (2.3) will discuss accounts of collective action inspired by this idea, with special attention to discussions on aggregate action, a theme addressed by Goldman but not fully developed in his account.

## 2.3 INDIVIDUATION OF COLLECTIVE ACTION

In this section, I will discuss how the individuation of action problem might foster explanations for collective action. I will do so by discussing two philosophers who also endorse this claim and developed fresh proposals for the analyses of collective action. In the next section (2.3.1), I will present Sarah Chant's (2006; 2007) proposal, which is highly individualistic. Sarah proposes to take seriously the way action is understood in individual cases in order to apply action theory to collective action cases; that is, collective action theories should be analogous to the way individual action theory is structured. Doing so, Chant elaborates an insightful case to deny a widespread accepted claim on collective action theory; the claim is that in every case of collective action some collective action is done intentionally.

In the final section (2.3.2), I will discuss David Schweikard's (2011) proposal for the structure of collective action. This is the most meticulous attempt to incorporate elements of the individuation of action problem to the explanation of collective action. Schweikard's proposal draws heavily in the way individuation of events are presented by Jaegwon Kim (1976), not using Goldman's (1970) specific account of action individuation that much. Besides the particular focus on Kim's proposal of events' notation, Schweikard explores a taxonomy of action, pointing out particularities of each kind of collective action. In his analysis, Schweikard finds an important limitation for the tools given by Kim and Goldman when we try to apply individuation of events and actions to collective cases. Besides that, Schweikard also argues in favor of legitimate ascription of action to collective entities. His argument is based on the identification of internal features that seems to enable these entities to possess the status of agents.

### 2.3.1 Sara Chant's Unintentional Joint Action

I will concentrate on Chant's proposal of analyzing collective action as an aggregate of individual actions. Chant (2007, p. 254) phrases her proposal in the following way: "collective action can be understood as 'level-generated' (to borrow Goldman's terminology) by sets of

individual actions in a way that is analogous to the generative relations that obtain between individual actions.” More specifically, I will discuss the surprising consequence that Chant found when she applied this approach, namely the denial of the claim that in every case of collective action some collective action is done intentionally. The pivotal aspect that leads her to this conclusion is the way she deals with unintentional action. If we apply the criteria that guide our unintentional action ascriptions in individual cases to collective cases, we can arrive at a plausible example where a collective *\*result\** was brought about without any intention aimed to a collective *\*result\**.

In order to present Chant’s argument, I will briefly highlight which principles are involved in our unintentional action ascriptions in the following section (2.3.1.1). After that (in section 2.3.1.2), I will present Chant’s cases that seem to offer a counter-example to the intuitive idea that every case of collective action should have some intention towards a collective *\*result\**. And, finally (in section 2.3.1.3), I will discuss some reasons to stick with the intuitive claim that Chant wants to dismiss. Those reasons might help us to elucidate some elements of collective actions’ ontological structure.

### 2.3.1.1 What is an Unintentional Action?

In the beginning of this chapter, we saw that *causation* and *action* are very close concepts. The very notion of causality prompts the idea of unintentional action. Take this example:

(...) the man flicked the switch, turned on the light, illuminated the room, and alerted the prowler. Some of these things he did intentionally, some not; beyond the finger movement, intention is irrelevant to the inferences, and even there it is required only in the sense that the movement must be intentional under some description. In brief, once he has done one thing (move a finger), each consequence presents us with a deed; an agent causes what his actions cause (DAVIDSON, 2002, p. 53).

What gives rise to an unintentional action is that some causal consequence of an action was not intended by the agent. In this particular case, we might expect that the man who flicked the switch was not intending to alert the prowler. But since we could expect that all the other events were intended (flicking the switch, turning on the light, illuminating the room), why should we regard alerting the prowler as an action?

Sarah Chant identifies two principles operating in the occurrence of an unintentional action: (1) in every case of action, something has been done intentionally; and (2) “Descriptions of the form, ‘bringing about E,’ where E is a causal consequence of an action, refer to actions and not to non-actional events or happenings” (CHANT, 2007, p. 247). Principle (1) states one

largely accepted point in the philosophy of action: that every action depends, in some way, on an intention. As we saw earlier, intentions seem to mark the distinction between mere happenings and actions. Your heart beating and your digestion are things that happen to you. Normally, your arm movement is something that you do (exceptions are when someone moves your arm, or when you have a spasm). Going back to Davidson's example, we can suppose that the man who flicks the switch, turns the lights on, and illuminates the room is doing these things, under the assumption that he had the intention to do so. Alerting the prowler, on the other hand, is something that he did not intend to do. So, our previous question returns: why should something that goes beyond an agent's intention be regarded as an action?

Principle (2) helps us to provide an answer. This principle states that consequences of someone's actions are further actions, or that agency is ascribable to action's consequences, if we accept Davidson's position in the individuation of action. The existence of this whole class of unintentional action leads Davidson to claim that intentional description is not a necessary criterion to identify an action: "(...) for although intention implies agency, the converse does not hold. Thus spilling the coffee, sinking the Bismarck, and insulting someone are all things that may or may not be done intentionally, but even when not intentional, they are normally actions" (DAVIDSON, 2002, p. 45).<sup>34</sup>

With the help of principles (1) and (2), we can identify (a) intentional actions, (b) unintentional actions and (c) happenings that are not actions. Take Davidson's spilling the coffee example: (a) I can intentionally spill the content of my cup; (b) I can bump in my cup while trying to reach my cellphone. In this case, spilling the coffee is an action of mine, but an unintentional one<sup>35</sup>; (c) I can spill the coffee because you jiggle my hand; in this case, spilling the coffee is not an action at all.

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<sup>34</sup> Enç (2003, p.41) makes exactly the same point: "There is something, A, the agent does that is caused by the right kind of psychological state the content of which involved doing A. A brings about some event E. Our amended answer correctly identifies A as an action, but fails to identify the bringing about of E as an action because no psychological state of Pat's had as its content the bringing about of E. So we see that our amended answer gives at best a sufficient but not a necessary condition for something's being an action. To make it necessary we need to relax the requirement that the relation between the proposition that describes the content of the psychological state (e.g. the intention or the decision to do A) and the action of the agent (A) be one of identity, and merely demand that there be 'an appropriate relation' between them, recognizing that identity is just one among many such 'appropriate' relations."

<sup>35</sup> Davidson (2002) makes use of another kind of unintentional action in his example. This other kind of unintentional action is derived from an intensional problem. In Davidson's spilling the coffee unintentionally, the agent had the intention to spill the cup of tea. Since there was coffee and not tea inside the cup, the agent spilled the coffee unintentionally. Here, my aim is to discuss unintentional action derived from Principle (2), that is, unintentional action linked with causal consequences of actions. Unintentional action derived from intensional relation of the agent with a description of his own action seems to pose another kind of problem. I will address this kind of unintentional action in section 4.4.

### 2.3.1.2 Unintentional Joint Action

Sarah Chant (2006, 2007) uses principles (1) and (2) to challenge a wide accepted principle in collective action theory, which is a collectivized version of (1): “(1\*) In every case of collective action some collective action (performed by that group of agents) is done intentionally” (CHANT, 2007, p. 248). Principle (1\*) argues for the necessity of a collective intention whenever there is a case of collective action. Chant (2006, p. 425) challenges this claim with counter-examples such as this:

Two Bad Boy Scouts: Two bad Boy Scouts break into an abandoned warehouse. Unbeknownst to them, the warehouse is rigged in such a way that if two switches are flipped, an alarm sounds. Without knowing that the other Boy Scout is about to do the same, each flips a switch. The alarm sounds.

In *Two Bad Boy Scouts*, Chant presents a collective action that is done without any instance of collective intentionality. The key feature of this kind of example is that there is an aggregated effect brought about by a set of individual actions. In this particular example, the aggregated effect is the alarm going off. There is no collective intention since the two boys did not plan, decide, intend or think to flip the switches together, nor obtain the effect (unknown to them) of the alarm going off.<sup>36</sup>

Nevertheless, the aggregated effect is a consequence of their actions. So, even though there is no collective intention, there are individual intentional actions that cause the alarm going off (so, an action that brought about E). The individual intentional actions being each instance of flipping the switch performed by both boys. Since the aggregate consequence was brought about by a set of intentional individual actions, the description of “alarm going off” should depict a case of action and not a mere happening, given principle (2).

But which kinds of aggregated effects should be taken as collective actions? Chant is aware that not every aggregate effect should be considered a collective action; she then offers another example:

Two Good Boy Scouts: On the north end of town, a Boy Scout helps a little old lady cross the street. On the south end of town, another Boy Scout helps a little old lady cross the street. As a result, two little old ladies are helped across the street (CHANT, 2006, p. 427).

This case seems similar to the previous one. We also have an aggregate effect that is a consequence of two individual intentional actions. In this case, the aggregate effect is that two little old ladies were helped across the street. This aggregate effect was brought about by the

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<sup>36</sup> One can even strengthen the absence of collective intention assuming that the breaking in was not collective planned. We can say that the two switches were in different parts of the house and that these two boys coincidentally decided to break in at the same time (one from the front, the other from behind, for instance).

individual intentional action of helping a little old lady cross the street by each boy. Although, it seems a little odd to say that this kind of aggregate effect, the event that two little old ladies were helped across the street (at *t*), could depict a proper action.<sup>37</sup> As Chant explains (2007, p. 247):

[T]here may be some (presumably vague) cut-off point after which the consequence of the action no longer serves to generate a description that picks out an action. (...) Exactly where (and whether) to draw a line between those consequences that can and those consequences that cannot be used to generate descriptions that pick out actions is a difficult problem.

In order to deny Universalism, which she defines as “[e]very set of actions performed by two or more individuals composes (or generates) a collective action” (CHANT, 2007, p. 253), Chant offers two distinct and independent criteria for the identification of a genuine collective action.<sup>38</sup> First (2006) she argues for emergent events as the mark of collective action. In order to some effect to be considered a collective action, it must be somehow emergent from a set of individual contributions. This kind of effect is to be contrasted with mere summative outcomes, where the various parts of the system neither inhibit nor amplify the effects of the other parts. Taking this criterion applied to our previous examples it seems clear that the effect of “two little old ladies were helped across the street” in *Two Good Boy Scouts* has a mere summative nature, whereas “the alarm going off” is an effect over and above the individual contributions of the *Two Bad Boy Scouts*.

The second criterion is defended on her (2007). This time she argues for level-generation as the criterion to identify collective actions. The core feature of level-generation theory that could help us distinguish collective actions from mere sets of individual actions (therefore, showing the falsity of Universalism) is its foundationalist spirit; the idea that complex actions may be generated by more basic actions. Level-generation could provide an explanation of how complex actions (such as collective actions) are brought about through the performance of simpler or more basic actions (individual actions).

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<sup>37</sup> Ludwig (2014a, p.123) thinks that there is no problem in being more liberal about collective action ascriptions: “Each boy scout is responsible for helping a little old lady across the street, but it is also the case that, in virtue of that, two little old ladies were helped across the street, and that is something that was not brought about by the efforts of only one of the boy scouts. So the helping of two little old ladies across the street (...) is in this case done by the boy scouts together but unintentionally.

Why is there an initial reluctance to accept that the two good boy scouts who act independently jointly aided two little old ladies across the street? I suggest that it is because we ordinarily think of helping someone across the street as something that is done intentionally. It is difficult, though not impossible, to imagine circumstances in which one could do that without doing it intentionally.”

I will discuss his proposal in more detail in section 3.4.2.

<sup>38</sup> I just want to stress that she does not present these two criteria together. The first is proposed in her (2006) and the second in her (2007), where the first is not even mentioned.

### 2.3.1.3 Challenging Chant's Account

Unfortunately, Chant did not develop the idea of level-generation as a criterion for collective action. She points that her primary aim in the paper is a negative one, against the claim that in every collective action there is an intention to a collective result. On the positive side, she offers a programmatic response, pointing out that more fine-grained approaches to action individuation could be a prolific research programme:

(...) a good research programme will be one that takes seriously how more complex or level-generated actions are brought about through the performance of simpler or basic individual actions. In particular, we should look to whether there are generative relations that hold between collective actions and sets of individual actions, where those generative relations are analogous to ones that obtain between individual actions (CHANT, 2007, p. 254).

Especially important in our present discussion, Chant's few remarks about this proposal cannot elucidate the difference between Two Good Boy Scouts and Two Bad Boy Scouts, so it is not clear how level-generation can solve the Universalism problem.

Should emergent consequences of individual actions be the distinctive mark of collective action? That is a very clever and thoughtful proposal, but it seems quite odd that emergent consequences of individual actions should count as the criterion to determine what a collective action is. The simple reason being that groups might intend mere aggregate consequences of their members' contributions. Chant (2006, p. 434) is aware of this fact and tries to evade this objection arguing that "our individual actions have the power to satisfy our collective intention only because of the other person's actions". Here, Chant states that the satisfaction of our collective intention is the emergent consequence, even if the result intended by the collective agent was a non-emergent consequence of its members' contributions.

For me, it is not clear that the satisfaction of a collective intention is an emergent phenomenon. Take a clearly summative (non-emergent) action such as filling a bag of candies in an assembly line. Let us say that there are 5 workers filling a bag with 4 candies each. This is clearly an action involving a summative goal: "We intend to fill a bag with 20 candies". Chant would probably agree that the goal of filling a bag with 20 candies is summative but she would argue that, once the bag is filled with 20 candies, there is a non-summative effect of satisfying the collective intention. However, the counterfactual appeal to the dependence of others' actions is not only evident to the satisfaction of the collective intention; it is also in place to the satisfaction of the goal, that is, in the achievement of the desired effect (the object of the intention). The summative effect of having the bag filled with 20 candies also depends upon the contribution of other members, so the indication of a counterfactual criterion cannot account

for a good indicator of emergent phenomena, given that it is also present in a clearly summative (non-emergent) one. I am inclined to think that in cases of this sort, if there is an emergent feature it might be the collective intention itself and not its satisfaction.

Actually, the greater importance of the collective intention rather than the kind of \*result\* has been a central intuition for the advance of social ontology research. Take Searle's (1990, p. 403) example:

Imagine that a group of people are sitting on the grass in various places in a park. Imagine that it suddenly starts to rain and they all get up and run to a common, centrally located, shelter. Each person has the intention expressed by the sentence "I am running to the shelter." But for each person, we may suppose that his or her intention is entirely independent of the intentions and behavior of others. In this case, there is no collective behavior; there is just a sequence of individual acts that happen to converge on a common goal. Now imagine a case where a group of people in a park converge on a common point as a piece of collective behavior. Imagine that they are part of an outdoor ballet where the choreography calls for the entire corps de ballet to converge on a common point. We can even imagine that the external bodily movements are indistinguishable in the two cases; the people running for shelter make the same types of bodily movements as the ballet dancers.

A central feature in this example is that both cases present the same amount of bodily movements. There is no movement in the first case that cannot be seen in the second one, and no movement in the second case that cannot be seen in the first one. Despite this important similarity, it seems intuitive that those cases are very different. This example is very successful in arousing our intuitions about the importance (and existence) of something like a *collective intentionality*. And it is done emphasizing that the \*result\*, the consequence or the aggregate effect, is not what matters in order for something to be considered a collective action.<sup>39</sup>

Chant's proposal also seems to be very permissive in the criteria for the existence of a collective entity. What makes those pair of boys scouts a group? Philosophers discussing groups as *agents* tend to demand some sort of structure for a set of people to constitute this kind of being. List and Pettit (2011), Schweikard (2011) and Tollefsen (2015) stress that a group must have some sort of decision-making process in order to be characterized as a *group agent*. The main claim here is that a set of people that randomly generates some emergent \*result\* cannot constitute a proper agent. We usually expect that agents will behave consistently throughout

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<sup>39</sup> Schmitt (2003, p. 146) also stresses the greater importance of intention over the kind of \*result\* in instances of collective action: "Note that intentions, rather than ends, determine the action type. If I mix the batter, pour it into the mould, put the mould in the oven, and remove it later, my merely acting for the end of baking a cake is not enough to make all of this an action of baking a cake, even on the assumption that I succeed in this end and bake a cake. It might be that each of my steps was merely part of a warm-up exercise for my end of baking a cake. I did not take these steps as part of a single composite action. If, however, I perform each step from the intention to bake a cake, then the steps are subactions that are parts of my baking a cake. Performing an action x for an end of performing an action z does not entail that x is part of z even assuming success in the end. But performing an action x from the intention to perform z entails that x is part of z, assuming success in the intention. So intentions, unlike ends, can do the job of determining action types."

time. If a proper agent changes her course of action, we normally can locate a change on her mind. Therefore, Chant's criterion for identifying collective actions seem to be too permissive, resulting in the ascription of action to entities that do not qualify as proper agents. This raises the question of how something that does not qualify as an agent can act.

Schweikard (2011) criticizes Chant's account for merging two very different approaches to the individuation of action problem. He takes Goldman's account to be more inclined to the ontological structure of action, while Davidson is more attached to an epistemic and linguistic approach. Schweikard argues that this mix is the responsible for the failure of Chant's proposal. He claims that the kind of level-generation Chant is proposing, which engenders an ontological claim, does not cohere with merely descriptions' consideration.

This move can be clearly seen when we contrast the two interpretations of principle (2). One way to see "action brings about E" is to interpret it as Goldman's causal generation, which will end up having the ontological commitment with the event E amounting to another action. On the other hand, the Davidsonian interpretation would simply allow someone to redescribe the *real* action with E. These distinct interpretations bring back the problem of Universalism, which can be highlighted by the following question: how far can the *agency* ascription go in a chain of events? In order to clarify this point further, take Ginet's (1990, p. 5) example:

Suppose, for example, that in the course of a walk through a field, I picked up a largish stone and then dropped it a few steps further on. The stone remains where I dropped it, and a year later, another man walking through that field trips over it. It might seem that I, by moving the stone a year earlier, caused this man to trip; yet it seems wrong to add my causing this man to trip to the list of unfortunate actions I have performed.

Bratman (2006) discusses the appropriation of the accordion effect by Davidson. Originally, the accordion effect was proposed by Feinberg as a way to ascribe responsibility to someone. The accordion effect is a claim concerning the relation between causality and responsibility. And, given the connection of these concepts, Feinberg claims that ascriptions of agency are also ascription of causality. If "John killed Smith", the death of Smith was caused by John; If "John turns the lights on", the illumination of the room was caused by John, etc. Since causation implies responsibility, and agency implies causality, agency should also entails responsibility.

However, the accordion effect was taken by Davidson as a claim about the redescription of an action in terms of its consequences. This second understanding of the accordion effect might be clear with Bratman's formulation of Davidson's version of the accordion effect as the *Principle D*: an agent causes what his actions cause. The core feature of such principle is that:

“the inference from the fact that a person’s action causes an upshot to the claim that that person caused that upshot” (BRATMAN, 2006, p. 7).

Bratman aims to argue against a plain and broad Principle D. At the end of his discussion, he proposes an alternative and restrict version of this principle, *Principle D'*: “If there is no relevant voluntary intervention of a certain sort, an agent causes what his actions cause” (BRATMAN, 2006, p. 18). This small restriction on the applicability of Principle D is based on examples such as the following: “Iago tells a ‘coldly jealous husband’ about his wife’s love affair with Horner, hoping thereby to get the husband to kill Horner. After due consideration, the husband does indeed shoot and kill Horner” (BRATMAN, 2006, p. 12). The question this example poses is what role Iago’s action plays in this story. It seems clear that Iago telling the husband is a crucial happening in the sequence of events. If Iago had not told anything, Horner’s death probably would not have happened (at least not the way it did). But it is very odd to say that Iago caused the death of Horner. Bratman (2006, p.15) organizes the problem we face with a collection of statements:

- (1) Iago performs voluntary action A.
- (2) The husband performs voluntary action B.
- (3) B is a causal consequence of A.
- (4) B causes Horner’s death.
- (5) A causes Horner’s death. (from (3), (4), and the transitivity of causality)
- (6) Iago causes Horner’s death (from (1), (5), and principle D)

(1), (2) and (4) are granted by the example. Denying (3) and (5) seems very odd. Feinberg deploys this example in order to challenge Hart and Honoré theory that suggests the denial of (3). They state that: “the free, deliberate and informed act or omission of a human being, intended to produce the consequence which is in fact produced, negatives causal connection” (HART; HONORÉ, 1959, p. 129). The problem is that it results in a very odd notion of causality, introducing the notion of agent-causation, where “every voluntary human action is a new causal start, a kind of prime mover or uncaused cause” (FEINBERG, 1970, p. 152). This assumption is challenged by Iago’s example, given that the husband’s action seems to be counterfactually dependent on Iago telling him those things about his wife (i.e. if Iago had not told anything, the husband would not have killed Horner). Denying (5) also seems counterintuitive, especially compared with Bratman’s option of refining Principle D.

With Principle D’, we can see that (6) does not follow from (1) and (5). Given (2), that is, B was a voluntary action; the agency causality is blocked, even if there was a causality relation between A and B (denoted by (3)). Principle D’ enables Bratman to retain a peculiar consideration of Feinberg’s argumentation: the slight difference between *causal ascriptions to human agency* and *ascriptions of causal agency*, which might provide the answer to what

extend events can serve as redescriptions of some action. *Causal ascriptions to human agency* amount to the list of events that are caused by someone's action that cannot serve as redescriptions, like Horner's death is a consequence of Iago's talking to the jealous husband, but could not describe Iago's action. *Ascription of causal agency* refers to those events that can serve as redescriptions. Not every *causal ascription to human agency* can be translated to *ascription of causal agency*, that is, not every consequence of someone's action serves as a redescription of that action. As seen in Bratman's conclusion of Iago's case, the intervention of a voluntary act, in this case, the husband's killing, can preclude the extension of causal agency, that is, this kind of intervention in a causal chain is one kind of exception in the usual translation between *causal ascriptions to human agency* to *ascription of causal agency*.

But how these solutions can affect a theory on collective action? I think that Bratman's revision of Principle D is not enough to solve Chant's challenge. In both cases of Boys Scouts (the bad dyad and the good dyad), there was no third party's voluntary intervention to block causal agency. In Two Good Boy Scouts there are two old ladies crossing the road, but their action, although voluntary, is not the kind of relevant intervention needed to block causal agency in a Principle D' manner.

This can be clearly observed with other examples that do not involve other agents but maintain the mere aggregative \*result\* relevant for the case significance in the discussion. For instance, change the Good Boy Scouts deed to getting wood for two campfires, instead of helping two old ladies cross the street. In this other kind of aggregative \*result\*, we would still be stuck with an aggregate effect that is a causal consequence of a set of individual actions. Since there is no other agent, this case clearly do not present any voluntary intervention in the chain of events. However, it still do not seem to be proper a collective action due to the fact that this aggregate effect is merely summative.

This discussion aimed to indicate that something is wrong with a plain Principle D and, as Chant recognizes, this means that her principle (2) is not true; even if there are cases where it holds, it cannot be generalized to every instance of an action's consequence. I will be back to these cases when I discuss my own proposal in section 4.4.

Finally, I just want to point out the problem for the Goldmanian interpretation of principle (2), that is, if "bringing about E" is taken to be an instance of causal generation. Goldman also acknowledges the existence of unintentional actions, and they arise in almost the same way as Davidson's formulation seen in section 2.3.1.1. These philosophers would only dispute whether those unintentional actions are further actions or just a different description for

a same action. The following excerpt might evidence that Goldman (1970, p. 115) subscribes to the principles Chant needs in order to establish her curious case of unintentional joint action:

I maintain that it is a logical truth that wants tend to cause acts. This does not entail that it is a logical truth that a particular act-token was caused by a particular want. Of course, if A is an act-token, A must have been caused by some want or other. But S's performing A does not entail which particular want caused A. The fact that John flipped the switch does not entail that John wanted to flip the switch. First, it does not entail that John had an intrinsic desire to flip the switch, that this was the point or reason for his flipping the switch. Secondly, it does not even entail that he had an extrinsic desire to flip the switch, since the act may have been unintentional.

Given Goldman's position on unintentional action and Chant's criticism that Goldman does not offer a clear criterion to identify cases in which there is an action composed of other actions (i.e. Goldman does not offer a clear criteria for the identification of aggregate actions), it seems that Chant's provoking cases follow from Goldman's account alone, with no need to make reference to a Davidsonian interpretation of principle (2). Therefore, the problem of unintentional joint action remains open for someone like me, willing to endorse Goldman's framework. My proposal, to be presented in section 4.4, will be based on the action-result problem, considering that we need to specify more precisely when a \*result\* (event) is indeed an action, that is, it is based on the dispel of linguistic or description confusions, tackling the problem as an essentially metaphysical question.

### **2.3.2 David Schweikard's Structure of Collective Action**

In this section, I will discuss Schweikard's proposal to spell out the ontological structure of collective action. This is the most detailed account of collective action employing individuation of action as an analysis' tool. Schweikard develops a taxonomy of action (section 2.3.2.1) in order to locate specific kinds of non-individual actions, i.e. actions that are ascribed to groups or realized by more than one individual. This taxonomy turns out to be an important device to explore similarities between these different kinds of actions. Schweikard exhibits the limits of the fine-grained approach to events and actions, i.e. Kim's and Goldman's proposals, by showing that some kinds of actions cannot be distinguished by these theories.

Particularly, Schweikard contrasts *contingently joint actions* with *parallel actions* and *necessarily joint actions* with *relational actions*. Joint actions are events (appropriately) brought about by more than one individual. Joint actions can be contingently joint or necessarily joint. People can cook, run, clean the house, etc. alone or together, so these are contingently joint actions. However, dancing tango, playing canastra, playing rugby, fighting a war, etc., are actions that necessarily involves more than one individual. Parallel actions are coincident events

of two (or more) people individually performing the same action at the same time in the same place. This can happen when two people are jogging, individually, side by side. The problem this particular circumstance might create is that the performance of parallel actions can seem identical, for an outside observer, to the execution of a contingently joint action such as jogging together. Relational actions are individual actions that are executed having other people under consideration. Usually, verb phrases where the object is another person constitute an example of it: “John shoots Smith”; “Sarah yells to Claire”; “Peter asks the pedestrian for directions”, etc. All those actions are performed by agents that have another individual(s) in mind. This kind of action is related to necessarily joint actions, in the sense that both involves more than one individual necessarily. However, in joint actions, these individuals are agents, whereas in relational actions one individual is the agent and the other individual(s) is just taken into account to motivate the agent to act.

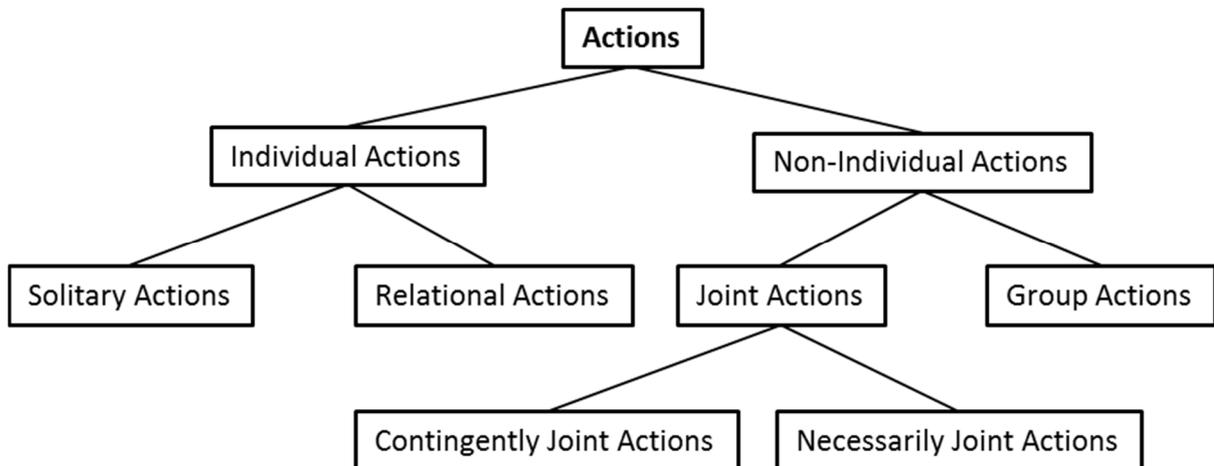
After exposing more precisely how standard fine-grained accounts of events and actions cannot discriminate these two pairs of action’s kinds, Schweikard develops his own account (section 2.3.2.2.). He proposes a redefinition on the notation of events that confers a special role to intentions. With this small addition, Schweikard believes that a fine-grained framework can adequately represent every kind of action, individual or not. In order to deal with joint action, Schweikard proposes a scheme of what amounts to an intention in this special case.

To argue in favor of a legitimate ascription of action to collective entities, Schweikard shows that internal features such as integrity, structure and rationality might enable this kind of being to have agency; to be capable to act. He claims that identifying a proper *practical integrity* in collective entities might dispel any skepticism about ascription to those collectives that exhibit some distinctive sort of cohesion and structure.

### 2.3.2.1 Taxonomy of Action

In order to introduce his proposal for the analysis of the ontological structure of collective action, Schweikard discusses a taxonomy of action. The overall picture he proposes is the following:

Figure 7 – Schweikard’s Taxonomy of Action



Source: Schweikard (2008).

Figure 7 shows that there is an initial distinction between individual and non-individual actions. Individual actions are subdivided into two kinds: (i) solitary and (ii) relational. Both are actions that are performed by one individual, but the first kind is realized with no reference to other people. Showering, writing a diary, making coffee, all these actions can be performed independently of others. A relational action is the Weberian sense of social action, that is, an action that takes into account the social context in which the agent is situated.<sup>40</sup> Very straightforward examples are, for instance, writing a letter to someone or making coffee to the whole family.

Non-individual actions are subdivided into two kinds: (i) joint actions and (ii) group actions. Schweikard also stresses a subdivision of two kinds of joint actions: (a) necessarily joint actions and (b) contingently joint actions. In order to explain these kinds of joint actions, Schweikard contrasts *necessarily joint actions* with *relational actions*, and *contingently joint actions* with *parallel actions*. Both these comparisons are motivated by the failure of Kim’s event notation to distinguish between them.

Let us start with the contingently joint actions because we already saw cases that might motivate the discussion. Particularly, Searle’s (1990) case of the people in the park running for shelter. As presented earlier, the interesting feature of this case is that it is possible to conceive

<sup>40</sup> It might be hard to make the scope of the social context precise. To what extent you brushing your teeth is not a social embedded action? Could you have done it without being able to buy toothbrushes and toothpastes at the supermarket? If you were isolated would you care of your oral hygiene? Not so stringent, but taking into consideration another individualist theorist of sociology (Norbert Elias’ (1994) figuration), how does the way society is structured influence your actions? Take, for instance, the decision of having some specific qualification in order to get a job. Your decision is not taking into consideration a specific boss you have in mind, but the whole structure of the job market. This specific matter will not be discussed here.

two distinct events with the same behavior by the people who take part on it: in one event, there is a bunch of non-related people running for shelter due to the sudden rainfall, and, in the other, there are member of a corps de ballet executing a choreography. Schweikard notes that the same kind of contrast is present when we use the fine-grained notation of events in cases of contingently joint actions and parallel actions. The \*result\* is quite the same and it is impossible to determine which case is a joint action from an observer perspective.

Schweikard clarifies this problem based on the notation offered by Kim. As we saw, event notation for Kim is constituted by three elements: a substance (S), a property (p), and a time (t). With Kim's notation, events can be represented in the general form: [S,p,t]. This notation is applicable to cases of action, considering act-types as act-properties. So actions figure as a kind of event with the same notation, but there is a restriction in the elements: instead of *substance-property-time* we have the more specific triple *agent-act-property-time*. Joint actions are cases where there is more than one agent, and when we try to apply this simple adaptation on Kim's notation, problems arise. Particularly, contingently joint action is a class of act-types that is neutral in regard of the agent spot. In order to instantiate this sort of act-type, there is no restriction of how many agents are involved. In Searle's example, running to the shelter is one of these neutral act-types regarding the agent element. Schweikard employs *walking* as his example to contrast contingently joint actions and parallel actions.

Applying Kim's notation of events for running to the shelter cases we will have:

(I) [A,B,C; running to shelter; t]

(II) [A,B,C; running to shelter; t]<sup>41</sup>

Schweikard (2011, p. 127) presents the notation for walking this way:

(III) [I, J; walking; t]

(IV) [J, K; walking; t]

In Schweikard's presentation, it is stressed that (III) is a joint action, while (IV) denotes a mere parallel action. In a third person perspective, someone would see individuals I, J and K walking side by side. This observer could mistakenly believe that those three individuals were walking

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<sup>41</sup> I am adapting Seale's case to this problem, given that, in his presentation, it is easy to solve the problem I am trying to raise here by just being more precise about the act-type being performed in (II). The corps de ballet is instantiating an *executing choreography* property, not a *running to shelter* property, which is probably a necessary joint act-type.

together, when, in fact, only I and J were performing a joint action, while K was just randomly walking in the same direction at the same time.

Schweikard claims that one important feature of contingently joint actions is that each individual contribution is completely independent of each other. But they are related in some way. Especially, they are coordinated. They figure as independent but coordinated singular actions. The coordination aspect is essential for them to count as a joint action since without it, no joint action would be achieved. The major problem of adapting Kim's notation to contingently joint action cases is that it does not capture that I and J individual walks also acquire the property of being contributions to a joint walk that should mark the distinction between a contingently joint action contribution and instances like K's individual walk (K's walk also need to be somehow coordinated in the same fashion we coordinate our walk in a busy street, for instance, in order not to bump into other people). The important question is to identify what turns individual walks in individual contributions for a case of walking together. This special element is evidently lacking in Kim's notation. Schweikard concludes that this standard notation of events cannot account for contingently joint actions, since it is not sufficient for two, three or more individual actions of the same act-type located in the same space and time to constitute a joint action (recall Chant's Universalism section 3.2.1.2).

A similar problem on Kim's notation occurs in other two kinds of action: necessarily joint action and individual relational action. Kim was concerned with individual actions and addressed relational action as an example that demands two substances (potential agents). But Kim's cases present an asymmetrical relationship between them. Schweikard follows Kim's example of Brutus stabbing Caesar, whose notation should be:

(V) [Brutus, Caesar; stabbing; t]

(V) presents the stabbing act-type as a property being performed by Brutus on Caesar at t. The problem Schweikard (2011, p. 115) identifies is that necessarily joint actions shall be represented in the same way with Kim's notation. He utilizes two examples: carrying a table and playing tennis:

(VI) [A, B; carrying a table; t]

(VII) [C, D; playing tennis; t]

As we can see, (V), (VI) and (VII) have the same structure. The main aspect here is that necessarily joint actions and relational actions must involve more than one substance. This is

an important difference from contingently joint actions once the act-type that figures on them is neutral regarding the number of substances involved. As we saw, walking and running for a shelter are act-types that can be performed by one or several agents. This is not true for act-types in necessarily joint actions and relational actions. Necessarily joint actions are instances of act-types that demand more than one agent. Examples of these act-types are singing a duet, playing tennis, and dancing tango. These activities cannot be performed alone. Similar, but not identical, are act-types of relational actions. They also involve more than one substance, but the asymmetry between them points out that those substances are not agents or, more accurately, are not exemplifying the act-type under consideration. Kim offers a way to solve this problem, he adds to his notation an element to mark the asymmetry:

(VIII) [Brutus, Caesar; stabbing (1,2); t]

In (VIII) the element after the act-property exemplified points to the asymmetry relation between substance 1 and substance 2 in the event being represented. With this element, it is clear that Brutus is the agent of the event, while Caesar is a passive substance, he is being stabbed. But the same strategy will not work for necessarily joint action cases. The substances in necessarily joint action cases are not in asymmetrical relation, there is no need to point out any kind of ordination between them. Quite the contrary, they are acting together, they are exemplifying the act-property together. And this is a very important aspect of the ontological structure of necessarily joint actions: the agents are taken to be acting together because their contributions are constituting the instantiation of a necessarily joint act-type.

This consideration opens up another discussion: whether necessarily joint actions are reducible to the individual contributions that constitute them. In order to discuss this assumption, Schweikard offers the case of two individuals singing a duet. The notation of this necessarily joint action will be:

(IX) [G, H; duet singing; t]

Since the necessarily joint action instantiation is ontologically dependent on the individual contribution of both agents, G and H, a reduction of (IX) might be possible, stressing each component of it:

(X) [G; doing the leading voice; t]

(XI) [H; doing the backing voice; t]

If the \*result\* is all that matters, as Chant proposal suggested, imagine a singing school where two different classes start to sing the same song at the same time. By Chant's criteria, someone passing through the hall could witness a joint act of singing, the instantiation of a duet singing by the students practicing their parts. Schweikard opposes this interpretation. The students' actions are not represented by (X) and (XI). (X) and (XI) are not mere individual actions, they are also constituents of (IX). This new property is fundamental and would be lacking in the representation of each student's individual singing.

The holistic feature stressed by Schweikard is based on a distinction between composition and constitution. Composition is what a reductionist view, like Chant's, employs as the criterion for identifying a joint action. Fundamental for this view is the ontological independence of each element. In the constitutivist view, defended by Schweikard, there is a holistic feature that impacts each constituent. The constituents gain properties through the constitution of a totality in which they are complementary to each other. This holistic feature points to the interdependence of the individual contributions, stressing that they cease to be mere individual actions, becoming constituents of a necessarily joint action. Trying to adopt a reductionist view to necessarily joint actions will neglect this holistic feature and misrepresent the individual actions, not managing to consider them as constituents. Individual contributions only play their role when they are related to the joint action.

The last non-individual kind of action is group action. The special feature of this kind of action is that a collective entity will be placed in the spot of the substance. Schweikard offers the example of an orchestra playing a symphony:

(XII) [O; playing symphony; t]

(XII) presents a collective entity as the substance (agent) exemplifying the act-property of playing a symphony at t. Schweikard mentions some specifications such as the fact that the example is capturing an ordinary performance of a symphony by an orchestra. It is not the case of the recording of a symphony; one individual alone could do this, recording each instrument separately. Many elements of this act-property might be fixed by the score of the symphony. Factors such as the time of execution and the size of the orchestra might be determined by the score. It seems plausible that this action instantiation is done in a single place and at a specific time.

But these are not necessary requirements for every group action. Schweikard mentions a case where individual contributions to a collective action are performed in different places and times, like a protest realized by a citizens' movement that might send letters or distribute

flyers through the city on different days. Another interesting aspect mentioned by Schweikard (2008, p. 104) is that some cases of group action “allow for both individual action (a solo by a single player) and joint actions (a pass play or a corner kick) to figure as representative actions that are then attributed to the group (or the team).”

Schweikard’s taxonomy of action provides a mapping of kind of actions. Exploring these distinct kinds, he observes that Kim’s notation of events fails to discriminate between them. This limitation observed by Schweikard motivated him to reshape the way action notation must be represented. The central addition proposed by Schweikard is the need to display that the particular action instantiated was appropriately related to the agent by means of a practical attitude. This new proposal on notation of events will be explained in the next section.

### 2.3.2.2 Redefining Action-Events Notation: doing justice to the place of intention in action

Schweikard’s proposal to deal with limits of the fine-grained approach to action individuation in collective cases is based on a change of perspective. He notes that this approach is far too externalist, in the sense that we are always dealing with action events by the third person view. Approaching action from this perspective, we are missing some fundamental elements of the very constitution of action.

Goldman’s proposal draws heavily on the *causal action theory*, showing how the intention as an action-plan is relevant to the execution of a basic action and how the *want* is the element that causes it:

(...) there is a logical relationship between wants and acts. Far from precluding a causal relationship between them, however, this logical relationship ensures a causal relationship. More precisely, the logical relationship ensures that if there are any wants and if any of these wants have consequences which are typical of wants, then some wants cause some acts. (...) In other words, it is part of the concept of an act that an act is caused by a want, just as it is part of the concept of boiling that boiling is caused by heat. In addition to the claim that the concept of an act includes the idea of being caused by a want, I wish to make the further claim that the concept of a want includes the idea of tending to cause acts (GOLDMAN, 1970, p. 112).

The problem is that other actions instantiated by an agent are actions solely in virtue of the relation (level-generation) they maintain with the basic action (recall Goldman’s definition of action in section 2.2.3). What strikes Schweikard as implausible in this picture is that the practical attitude ceases to be relevant for these other actions.

In order to clarify the relation an agent has to the action being exemplified by him, Schweikard proposes the introduction of an intentional element (q) in the notation of events. This new element accounts for the practical attitude the agent has toward the action being

exemplified and must figure as a constitutive element of an action event. Recalling Smith's example of John illuminating the room by flicking the switch, we must alter the previous notation of [John; flicking the switch; t] to [John;  $q_{\text{John}}$  (flicking the switch); t] which could be applied to other actions performed by John: [John;  $q_{\text{John}}$  (illuminating the room); t].

This strategy should be applied to non-individual action cases in order to solve the ambiguity between *relational actions* and *necessarily joint actions*, and *contingently joint actions* and *parallel actions*. We already saw that Kim had a solution for the first problem. As pointed out in the small change from (V) to (VIII), stressing the asymmetry of the stabbing act-type should be enough to identify it as a case of relational action. Now, with the introduction of (q) as an element that relates the agent with the intentional performance of the action she is exemplifying, we could offer a more precise notation:

(XIII) [Brutus, Caesar;  $q_{\text{Brutus}}$  (stabbing (1,2)); t]

The implementation of this notation will clarify necessarily joint actions such as (VI) and (VII):

(XIV) [A, B;  $q_{A,B}$  (carrying a table); t]

(XV) [C, D;  $q_{C,D}$  (playing tennis); t]

Just as in individual actions, joint actions will be the exemplification of an act-property by many individuals when they are jointly intending to instantiate the exemplified act-property. This feature is especially important in the distinction of contingently joint actions and parallel actions like (III) and (IV). With the intentional element, we might specify which of those actions were joint:

(XVI) [I, J;  $q_{I,J}$  (walking); t]

(XVII) [J, K;  $q_J, q_K$  (walking); t]

By means of (XVI) and (XVII), we can clearly represent that individuals I and J are involved in a joint action of walking together, whereas K just happens to be side by side exemplifying the same act-type of the dyad I and J, since I and J have a joint intention towards the exemplification of an walking act-type, while K and J maintain an individual intention relation with this act-property.

Schweikard recognizes that joint actions are constituted of individual actions. There is no collective action without an individual agent doing something. However, as he points out, this does not mean that joint actions are composed of individual actions. The idea here is that

individual contributions and the joint intention are constitutive elements of the joint action and not parts of its composition. I and J transform their individual walks into a joint walk. The joint intention creates a relational structure that constitutes the joint action. This structure has an irreducible characteristic. The nature of joint actions does not allow an analysis based solely on individual actions. They are insufficient for an adequate explanation of joint action cases.

I shall briefly present what Schweikard takes to be the nature of this joint intention. His ideas are widely influenced by two leading accounts in collective intentionality: Bratman (1999b) and Tuomela (2007). We already saw that Schweikard opts for distinguishing joint from group actions. This draws him to endorse a Bratmanian account to deal with cases of joint action. A joint intention as an interrelated structure is very similar to Bratman's shared intention (1992, 1993):

(...) shared intention, as I understand it, is not an attitude in any mind. It is not an attitude in the mind of some fused agent, for there is no such mind; and it is not an attitude in the mind or minds of either or both participants. Rather, it is a state of affairs that consists primarily in attitudes (none of which are themselves the shared intention) of the participants and interrelations between those attitudes (BRATMAN, 1999b, p. 122-123).

Schweikard synthesizes his position with four theses. Two of them are very Bratmanian in spirit:

*Thesis (1):* I and J are jointly bearers of the intention which guides their joint walking. This is called I and J's joint intention.

*Thesis (3):* In the content of the joint intention, the joint action is represented by the phrase "... that we walk together."<sup>42</sup>

Thesis (1) is what our previous explanation, about the introduction of the intentional element (q) in the notation of collective actions events, should capture. When there is a case of joint action, the exemplification of the particular act-type is brought about by the members involved. For such exemplification to constitute an action, a practical attitude (an intention) should relate these individuals with the instantiation of that act-property. The solution proposed by Schweikard has this Bratmanian inspiration, where the relevant intention is a relational structure dependent on mental states from every individual involved.

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<sup>42</sup> In the original: "These (1): A und B sind gemeinsam Träger derjenigen Absicht, die ihr gemeinsames Gehen lenkt. Dies wird As und Bs gemeinsame Absicht genannt. (...) These (3): Im Gehalt der gemeinsamen Absicht wird die gemeinsame Handlung mittels der Phrase '..., dass wir gemeinsam gehen.' angeführt" (SCHWEIKARD, 2011, p. 306).

In order to speak properly of the individual mental states that individuals performing joint actions must have, it is better to introduce Tuomela's influence on the overall account, which corresponds to the Thesis (2):

*Thesis (2):* The joint intention of I and J is in the We-mode; on the subject point of view, the verbalization of this intention is in the 1st person plural: "We intend that...".<sup>43</sup>

With Thesis (2) and (3), it is possible to construct the form these individuals engaged in joint intentions represent their practical attitudes: "We intend that we walk together". The subject of the joint intention is the collective entity, constituted by the conjunction of the individual members. But the bearer of this specific intention is the individual. Both I and J form the intention represented in the way: "We intend that we walk together". The joint intention whose bearer is the conjunction of I and J is constituted by these individual intentions in the We-mode. The We-mode is responsible for these individuals to being able to adopt the first person plural stance necessary to the formation of an adequate practical attitude constituent of a joint intention.<sup>44</sup>

In Thesis (3) there is another kind of collectivization present in joint intentions, the collectivization of the content. Following Bratman, Schweikard takes the content of an intention to assume the form of a proposition; but it constitutes a practical content in Castaneda's sense rather than a standard conception of proposition endorsed by Bratman.<sup>45</sup> The crucial point, shared between Schweikard and Bratman, is that the content is collectivized, that is, this intention clearly indicates that the members strive for exemplifying the relevant act-property together.

Finally, Schweikard makes explicit his relational approach by siding with Bratman and Searle in the denial of a group mind who could bear the intention, that is, all mental properties are instantiated by individuals' minds. However, the relational approach should block the constitution of a joint intention by a misled person who erroneously takes others as cooperating with her. For individuals' intentions to constitute a joint intention, the individuals involved must

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<sup>43</sup> In the original: "These (2): Die gemeinsame Absicht von A und B steht im Wir-Modus; an der Subjektstelle der Verbalisierung dieser Absicht steht die 1. Person Plural: 'Wir beabsichtigen, dass ....'" (SCHWEIKARD, 2011, p. 306).

<sup>44</sup> Schweikard also claims that this move solves a problem of circularity that is present on Bratman's account of shared intention. I will not discuss this problem here.

<sup>45</sup> Here is an excerpt that introduces the core feature of Castañeda's position regarding intentions: "Let's for convenience introduce the term mandate to refer to the members of the category of second- and third-person practical contents like commands, orders, requests, petitions, entreaties, pieces of advice, and their likes. Also for convenience let's speak of the category of practitions to include both the third- and second-person practical contents that are mandates and the first-person practical intended contents, which we will call intentions. Thus, intentions are first-person practitions" (CASTANEDA, 1990, p. 278).

be able to answer the question of who is acting and what is being done in a collective manner, that is, they will successfully refer as *we* to the subject acting as well as indicate the joint action as the activity being performed. Therefore, to prevent any odd situation from constituting a joint action,<sup>46</sup> Schweikard proposes another thesis:

*Thesis (4):* The joint intention is accompanied by mutual beliefs of I and J concerning the actual implementation of the joint action.<sup>47</sup>

This explanation of joint intentions should enlighten what happens in cases like (XVI) [I, J; q<sub>I,J</sub> (walking); t], where there is direct reference to individuals, but they maintain this special joint intention relation with the act-property being exemplified. Joint intentions give an adequate account for joint action. But what about *group actions*? Does joint intention suffice to explain what is going on when the substance occupying the spot of agent is a collective entity, like in notations such as (XII) [O; playing symphony; t]?

To explain this kind of notation, Schweikard claims that joint intentions are insufficient. For sure, action ascribed to collective entities will depend on joint actions and joint intentions of its members. However, proper *group action* is not reducible to joint actions and intentions, just as *joint action* depends on *individual action* but is also irreducible to them. The main idea here is that group actions and attitudes are constituted by individual (and/or joint) actions and attitudes, but not reducible to them.

Schweikard argues in favor of this irreducibility by identifying certain characteristics of collective entities that are not present in cases of joint action. These characteristics are derived from the *structural framework* that organizes the collective entity. Two distinctive features are of central importance here: (i) the division of labor by means of the assignment of roles; and (ii) a design of internal mechanisms and procedures for decision-making. In order to spell out this structural elements that distinguishes *group action* from *joint action*, Schweikard is guided by three problems: (a) how exactly is a group agent constituted by individuals and their joint

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<sup>46</sup> Thesis (4) is like a success clause, in the sense that a joint intention is just instantiated when there is, in fact, the relevant individual intentions (in the *we-mode*) to constitute it. Therefore, there is no joint intention just by one individual bearing a *we-mode* individual intention, such as in the following circumstance envisaged by Searle (1990, p. 407): “ (...) if I am pushing only as part of our pushing, or if I am blocking the defensive end as part of our executing a pass play the intentionality, both plural and singular, is in my head. Of course I take it in such cases that my collective intentionality, is in fact shared; I take it in such cases that I am not simply acting alone. But I could have all the intentionality I do have even if I am radically mistaken, even if the apparent presence and cooperation of other people is an illusion, even if I am suffering a total hallucination, even if I am a brain in a vat. Collective intentionality in my head can make a purported reference to other members of a collective independently of the question whether or not there actually are such members.”

<sup>47</sup> In the original: “These (4): Mit der gemeinsamen Absicht gehen wechselseitige Überzeugungen von A und B einher, welche den konkreten Vollzug der gemeinsamen Handlung betreffen” (SCHWEIKARD, 2011, p. 307).

actions?; (b) what degree of internal organization a collective entity must have or realize to be properly considered an agent?; and (c) which other conditions should be met, in order to we ascribe the status of agent to some collective entity? Schweikard guides the answer of these questions exploring leading theories of collective intentionality. To address the first problem he follows Gilbert's (2006) theory of *plural subjects* and Tuomela's (2013) *structure of We-groups*. The last one is also important for question (b). He also employs List and Pettit's (2011) *theory of judgment aggregation* to answer questions (b) and (c).

I just want to mention that these theories often pay more attention to collective intentionality aspects rather than collective action, even when the main objective is to address action (like List; Pettit (2011) and Tuomela (2013)) the focus is in what kind of collective intentionality explanation we should give in order to support the claim that there are *collective agents*. I do not deny the importance of intentionality in the explanation, but the lack of a more direct examination of core elements of philosophy of action render these approaches insufficient. Of course, this is not the case for Schweikard's account, given that he is adopting these views to explain why an event notation such as [O; playing symphony; t] is an action. In order to address such question, a lot of philosophy of action is presupposed, as we have seen.

Schweikard names his approach as *practical integrity of collectives*. The practical aspect denotes the interest restricted to action, disregarding other possible scope of analysis in social ontology. The main guideline for the inquiry of this practical element is to locate how a collective entity can maintain rational attitudes in order to count as a proper agent; i.e. how it can satisfy the rational requirements expected for a correct ascription of the status of agent. Therefore, the focus of this proposal is on the structural features of collective entities that enables such ascription. The integrity aspect refers to the fact that collective entities amounts to the integration of individual agents by means of an internal organization, a structure. Bringing the two concepts together means that the effort is to explain how the relevant requirements on the collective-level are met by means of individual-level actions and attitudes organized by certain structure. This entails some sort of dependence of the collective-level on the individual-level; however, it does not imply that a reductive explanation is sufficient.

Schweikard presents his proposal in three steps: (I) the explanation of a collective entity's formation; (II) the establishment of organizational and structuring principles for collective agents; (III) an argument to show how organized and structured collective entities can be considered rational agents.

The constitution of a collective entity is the first step. The central element for this constitution is the adoption of a common goal. However, the mere coincidence of individual

objectives is not sufficient to give rise to a collective entity. There must be a *collective acceptance* regarding the common goal. Two points must be highlighted here. First, this collective acceptance do not need to come about by means of an explicit contract. For sure, some cases might present such element, where definitions about coordination and organization might be settled previously and formally. However, there is no need to require this element in every case. Some collective entities with more complex structures might adapt some of its organizational features over time and other collective entities do not need to make explicit its structure so that individuals can adhere to the pursuit of a common goal.

The other point is that this particular kind of acceptance should entail some sort of commitment from each participating individual regarding the attainment of the goal. This is a kind of commitment that can also be observed in individual action. When you are *settled upon* doing something, it generates some rational constraints. If you are settled upon doing your homework today, it is not rational that you go to the cinema after the class (given that you do not have time to do both). So, collective acceptance to attain goal G should generate a similar effect as the attitude of being settled upon bringing about G in the individual case.<sup>48</sup>

This special sort of commitments generates reciprocal obligations that tie each of the individuals sharing the common goal. This complex of individuals related by their reciprocal obligations is what Schweikard calls the integration of collective agents. This integration is responsible for the constitution of the unity characteristic of collective entities; that is, individuals maintaining this complex of reciprocal obligations form a structure that can be taken as *one whole*.

In this sense, Schweikard thinks that Gilbert's notion of *doing as a body* can provide the important cohesion element needed to give rise to a collective entity. The kind of interrelation this approach explain is relevant to identify the sense of unity this kind of entity have. But, more than that, it also explain the sense of membership. This network of reciprocal obligations makes the individual understands her position towards the collective entity. It enables her to properly identify herself as a member of the group. The ties formed with others give rise to the *sense of us*, experienced by the individual member. It is important to recall that this complex of reciprocal obligations is based in the endorsement of a common goal.

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<sup>48</sup> It is often discussed if this is a rational or a moral constraint in cases of collective action. If it is in the scope of morality, the collective acceptance would generates a kind of commitment between the individuals participating in it that could be seen as a kind of promise. However, Gilbert (2006) argues that it is not the case. The failure to comply with a *joint commitment* (in her terminology) is not a moral issue, it is a rationality infringement similar to not doing (or trying to do) what you are settled upon. This is an infringement to the rationality of an agent and not to her moral character.

However, Schweikard thinks that this is not sufficient; the constitution of a collective entity does not explain how it can act. There must be some structural organization in order to a proper collective agent operate to pursue its goal. This element is precisely what distinguishes *group actions* from *joint actions*. Schweikard does not believe that there is a need to form a social unity capable to act in order to perform a joint action. These structural elements are responsible for qualifying the collective entity as a distinctive agent that possess attitudes and to whom is correct to ascribe agency. The elements pointed earlier are necessary, but not sufficient to spell out how groups can properly act. Collective acceptance on a goal and the reciprocal obligations between the members do not settle how this unity can reach the goal.

Schweikard believes that addressing the internal structure of the entity might enlighten how collective entities really operate, how they can issue orders to make things done. The main limit of Gilbert's account is not to encompass this important feature. Schweikard points out that the collective acceptance cannot be limited to the goal; it must contain reference to how the entity can organize itself in order to achieve it. By addressing the internal structure of how collective entities are organized, we might understand how individual members can have specific tasks assigned, in virtue of their role in this structure.

The important feature of this explanation is to spell out how division of labor occurs based on positions and roles individual members occupy in the internal structure of collective entities. There is one particular kind of position, that is stressed by Tuomela's account, that plays a decisive role in the process of task assignment. Some positions in the structure might be authorized to make further tasks assignments. Besides that, larger collective entities might reserve special roles for decision-making.

Whatever specific design an organizational structure might have, the important point here is that it constitutes an authorization framework that is the mark of a group action. This explains why the collective acceptance must go beyond the setting of the common goal. The collective acceptance must also endorse a specific organizational structure with an authorization framework that characterizes the performance of individuals as group actions (or part of the actions executed by the group). The structure shows that individual members are authorized to perform determinate tasks in the pursuit of the common goal. And all these contributions are collective accepted in virtue of the way the collective entity is structured.

Two elements were covered: unity (as integrity) and structure. Some philosophers take these elements to be sufficient to ascription of action to collective entities. Schweikard thinks that there is still something missing. In order to something possess the status of agent; it must

exhibit some distinctive kind of coherence. It does not suffice to cause things, some rational requirements are demanded to something be considered a proper agent.

Schweikard offers two lists of rational requirements that something that cause things must meet in order to be qualified properly as an agent. The first list is based on Bratman's (1999a) requirements: (i) means-end coherence, (ii) plan consistency, and (iii) intention's stability. I will briefly describe each of them, however a more detailed explanation will be offered in section 4.2.

(i) and (ii) are practical reasoning rational requirements. In order to attain a goal, the agent must be able to reason about efficient means to achieve it, if it is not directly achievable. Agents tend to have quite complex goals that are not easily achieved. If you want to graduate, you need to study for tests, produce papers, do extracurricular activities, etc; to bake a cake you need to follow the steps of the recipe: preheat the oven, beat the eggs and sugar, put the cake mixture in the oven, etc. A rational agent must be able to perform a practical reasoning to find intermediary actions that will lead to the desired goal. Besides that, your plans cannot be incoherent. You cannot intend to bake the cake and go to the gym if you know that you do not have time to perform both activities. Therefore, besides intention-belief rational constraints, there are intention-intention constraints too.

The last rational constraint, (iii) intention's stability, is a certain commitment a rational agent has towards actions that she is settled upon. We briefly saw this before. If I already formed the intention to bake a cake for your birthday today, this should prevent me to form an intention to go to the gym in the morning. When I really formed the intention to do something, i.e. when I already undergo the practical reasoning, assess all the possible alternatives courses of action at my disposal, compared them and decided for one, I am settled upon doing it. This means that I will not revise this decision easily. Of course, I can revise it. Being settled upon doing something does not imply that I will necessarily do (or try to do) it. Some unexpected contingency might force me to revise my intention. However, Bratman argues that stability (not irreversibility) is a fundamental characteristic of an intention.

The other list is provided by List and Pettit (2011), and is composed of other three rational standards: (i) attitude-to-fact, (ii) attitude-to-attitude, and (iii) attitude-to-action. (i) means that a proper agent must have a suitable relation to her environment. An agent must be able to collect information about how the world is in order to form an efficient plan to intervene in it. In short, an agent responds appropriately to her evidence. (ii) is the requirement that an agent's mental life be consistent. Her beliefs, intentions, desires, etc. should not be contradictory or incompatible. (iii) says that an agent must execute those actions that her set of

attitudes requires or, at least, permits. This means that the agent tends to perform those actions that she is adequately motivated to perform and there is no belief preventing the agent to do so.

Schweikard highlights that these rational requirements are sufficient for the identification of a proper agent; however, they are not necessary. People have inconsistent beliefs, fail to do what they think they should, for instance, we do things impulsively like buying stuff we do not need, etc. The infringement of these requirements do not prevent us from being agents. What is necessary to be an agent is to be disposed and capable of meeting these requirements.

In the case of collective entities, the greatest threat is infringements on conditions of consistency (both (ii) in the two lists above). List and Pettit (2011, p. 46) identified a problem called discursive dilemma, which they define as: “the fact that majority voting on interconnected propositions may lead to inconsistent group judgments even when individual judgments are fully consistent.” In short, this means that individual-level consistency can fail to entail collective-level consistency. An example should clarify this problem.

Imagine that a company is trying to decide whether give a pay-raise to its employees or use this money to invest in safety measures. The company has three employees and gives them the authority to decide what should be done. The employees decide to take votes on three criteria they find relevant to settle the matter: (i) how serious is the danger they are exposed to; (ii) how effective the safety measure proposed is; (iii) how bearable the pay-sacrifice in their individual paycheck is.

In order to decide in favor of the safety measure implementation, an employee must consider: (i) that he is exposed to a serious danger; (ii) that the safety measure proposed is effective; and (iii) that he does not need the pay-raise, given her private financial situation (that is, she is willing to decline the pay-rise in face of the perceived benefits of implementing the safety measure). This decision schema makes these three criteria as necessary and sufficient conditions for an employee decide in favor of the safety measure implementation (S). So, the voting procedure will be applied to interconnected propositions:  $((i) \wedge (ii) \wedge (iii)) \leftrightarrow S$ .

Now, imagine that the polling has the following outcome:

Table 1 – Collective-level Inconsistency

Individual	(i) Serious Danger?	(ii) Effective Measure?	(iii) Bearable Loss?	(S) Implement Safety Measure?
Employee 1	YES	YES	No	No
Employee 2	YES	No	YES	No
Employee 3	No	YES	YES	No
Majority	YES	YES	YES	No

Source: Adapted from Pettit (2003).

Table 1 exhibits a case of collective-level inconsistency, even when all the individuals taking part in the process are providing coherent opinions on the matter. It is easy to identify that every individual is rational when we make explicit the kind of interconnection these propositions have.  $((i) \wedge (ii) \wedge (iii)) \leftrightarrow S$  shows that if an individual do not agree with one of the criteria, she will be against the implementation of the safety measure. In the distribution of opinions represented in Table 1, every employee has reject one criterion; therefore, every employee is positioned against the implementation of the safety measure. However, each employee rejects a different criterion. This particularity has as an odd consequence that every criterion is endorsed by the majority of the employees.

This leads to the inconsistency in the collective-level. If we observe the last line of Table 1, that represents the majority position on each proposition, the collective outcome is inconsistent if we take into consideration the kind of interconnection that these propositions maintain. This line shows that the group of employees endorses all the criterion that are necessary and sufficient for the decision in favor of the safety measure implementation, however, it also takes the position that the implementation should not occur, once every employee is individually positioned against the implementation. Therefore, the collective output in this example is a case of inconsistency in the collective-level characteristic of the discursive dilemma.

List and Pettit (2011) show that this problem can be pervasive in the collective realm. If this kind of situation is always possible, then collective entities are constantly threatened to be inconsistent. Given the demand that rational agents must strive for coherence due to the normative pressure of the rational requirements earlier presented, collective entities must have a way to avoid this kind of outcome if they are suitable to qualify as proper agents. I will discuss the discursive dilemma again and in more detail in section 4.3.4. However, I will endorse a

different solution from the one adopted by Schweikard. I will not discuss that solution here, keeping the discussion restricted to Schweikard's final position.

Schweikard follows Pettit's (2007) solution named *straw-vote procedure*. Pettit presents this solution as a step-by-step instructions' guide to the formation of collective attitudes that contains a prescription of how to deal with inconsistencies:

- (1) With every issue that comes up for judgment take a majority vote on that issue and, as issues get progressively settled in this way, keep a record of the accumulating body of judgments.
- (2) With every new issue that is voted on, check to see if the judgment supported is consistent with the existing commitments of the group.
- (3) If majority voting generates an inconsistency, treat the judgment supported and the set or sets of judgments with which it is inconsistent in the record as candidates for reversal.
- (4) Identify the problematic judgments – say, the judgments that p, that q, that r, and that not-p&q&r – and address the question of how to resolve the inconsistency.
- (5) Take a vote on where it would be best to revise the judgments: whether, in the simple example considered, it would be best to revise the judgment that p, that q, that r, or that not-p&q&r.
- (6) Take the proposition identified in this way, and hold another vote on how the group should judge that proposition.
- (7) If the group reverses its previous judgment, treat the new verdict on that proposition as the one to be endorsed by the group.
- (8) If the previous judgment is not reversed in that vote, go back to stage 3 and try again.
- (9) If it appears that there is no prospect of success in this process, try to quarantine the inconsistency, and the area of decision it would affect, so that it does not generate problems elsewhere.
- (10) If this quarantining is not possible, perhaps because the area of action affected is important to the group's aims, there is no alternative but to declare defeat on the issues under consideration, even perhaps to disband. (PETTIT, 2007, p. 512-513).

In short, this procedure recommends the adoption of a majority voting principle, where the collective attitude is formed when the majority of its members has the same position (accepting or denying) towards a proposition. However, the procedure emphasizes that there should be a consistency check when a collective attitude is formed comparing it to the set of previously formed attitudes. When an inconsistency is identified, the collective entity should decide on how to revise its set of attitudes. Another voting procedure should be adopted in order to determine what to do to restore consistency on the set (which attitude should be dropped). If there is no way to resolve the inconsistency on the set, the collective should isolate the inconsistent subset. If the propositions on the inconsistent subset are crucial for the adequate functioning of the collective entity, then it has no way to cope with the inconsistency. This might render the collective entity dysfunctional and will threaten its persistence.

Adopting this procedure, a collective entity can preserve rationality. When the collective entity maintains an inconsistent set, it can deploy a procedure such as the straw-vote to restore its consistency. The achievement of an internal coherent set of positions by this kind of

procedure is very analogue to what individual agents do when they reflect about their beliefs and commitments. Let me emphasize that the actual restoration of consistency is not needed, as can be seen, step (10) opens the possibility of the collective entity trying to cope with an inconsistent set. What is demanded for something to achieve the status of agent is the capability to address the problem of inconsistency. This can be done by the straw-vote procedure. Schweikard emphasizes that the adoption of a procedure like this renders a collective entity a self-controlling system. Besides being a self-organizing system, one that exhibits a rational pattern of action, a self-controlling system is capable of monitoring and intervening in processes, through subsystems that play a regulatory role. Therefore, collective entities can also be taken as proper agents, because they can meet the relevant rational requirements.

To sum up, Schweikard's idea of collective agency is based on three main points: (i) the integrity achieved by the network of reciprocal obligations between its members, generated by the collective acceptance of a common goal, and that determines the unity of those related individuals in one whole (an element that brings them together); (ii) the internal structure that defines positions or roles; moreover the very position of assignment and decision-making, that plays a central role in the distribution of the tasks necessary to the attainment of the common goal; and (iii) the adoption of methods and processes that aim to secure rationality in the set of attitudes formed by the collective entity.

The overall structure of the proposal is specified in the following way:<sup>49</sup>

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<sup>49</sup> In the original (SCHWEIKARD, 2011, p. 422-423):

“Ein von mehreren Individuen (I1, ..., In; n>2) gebildetes Kollektiv K ist praktisch integer, wenn es die folgenden (gemeinsam hinreichenden) Merkmale aufweist:

- (1) I1, ..., In haben ein gemeinsames Ziel Z.
- (2) I1, ..., In akzeptieren Z kollektiv als Ziel, das sie gemeinsam verfolgen wollen.
- (3) I1, ..., In legen sich kollektiv auf die Verfolgung von Z fest.
- (4) Kraft (2) und (3) identifizieren sich I1, ..., In selbst und gegenseitig als Mitglieder von K.
- (5) Die kollektive Akzeptanz von Z und die kollektive Festlegung auf die Verfolgung von Z konstituiert innerhalb von K eine deontische Binnenstruktur aus wechselseitigen Verpflichtungen und Ansprüchen hinsichtlich der Beteiligung an der Verfolgung von Z.
- (6) Als Mitglieder von K rekurren I1, ..., In mit 'wir' auf die Ziele Festlegungen und Entscheidungen, die in K getroffen werden.
- (7) Innerhalb von K wird eine Organisationsstruktur geschaffen, die im Rahmen der Verfolgung von Z die Aufgabenverteilung und Arbeitsteilung unter I1, ..., In festlegt und in K kollektiv akzeptiert wird.
- (8) Durch die Organisationsstruktur von K werden kollektivinterne Positionen und Rollen definiert, zu deren Erfüllung Kollektivmitglieder autorisiert werden.
- (9) Einzelne Aufgaben können von K an Externe (sc. Nicht-Mitglieder) delegiert werden.
- (10) Die Entscheidungen und (gemeinsamen) Handlungen, die Positionsinhaber oder Externe 'im Namen von K' treffen bzw. vollziehen, werden von den (anderen) Mitgliedern von K kollektiv akzeptiert.
- (11) Abstimmungen innerhalb von K folgen dem Mehrheitsprinzip, d. h.: wenn sich eine Mehrheit der Abstimmenden für eine Proposition ausspricht, gilt dies als Haltung von K.
- (12) Zum Treffen komplexer Kollektiventscheidungen praktizieren die Mitglieder von K das Probeabstimmungsverfahren, das kollektiv akzeptiert wird und mittels kollektivinterner Diskurse und der Pflege eines Verzeichnisses der Kollektiventscheidungen dafür sorgt, dass Kollektiventscheidungen für einzelne Urteile

A collective C formed by several individuals (I1, ..., In;  $n > 2$ ) is practically integer if it has the following (jointly sufficient) features:

- (1) I1, ..., In have a common goal G.
- (2) I1, ..., In collectively accept G as the goal they want to pursue together.
- (3) I1, ..., In are collectively committed to the pursuit of G.
- (4) From (2) and (3), I1, ..., In mutually identify themselves as members of C.
- (5) The collective acceptance of G and the collective commitment on the persecution of G constitutes a deontic internal structure within C of reciprocal obligations and rights regarding the participation in the pursuit of G.
- (6) As members of C, I1, ..., In, refers to the objectives and decisions made in C by means of the first person plural pronoun "we".
- (7) Within C, an organizational structure is created that, according to the pursuit of G, defines the task distribution and division of labor between I1, ..., In and it is collectively accepted in C.
- (8) The organizational structure of C defines collective positions and roles, which collective members are authorized to fulfill.
- (9) Tasks can be delegated from C to external individuals (non-members).
- (10) Decisions and (joint) actions undertaken or carried out by members or external individuals "on behalf of C" shall be collectively accepted by the (other) members of C.
- (11) Voting within C follows the majority principle, that is, when a majority of the voters vote in a proposition, this counts as the attitude of C.
- (12) In order to address complex collective decisions, the members of C adopt the straw-vote procedure, which is collectively accepted and that, through collective discourse, and a list of previous collective decisions, ensures that collective decisions on individual propositions by its members form a consistent decision structure.
- (13) If there is an inconsistency in the decision-making process of C, this is addressed in collective discourse, where the revision of one of the mutually inconsistent decisions is attempted. If no decision-making by majority vote is reached, the decision is ignored; If is not possible to ignore the inconsistent decision, the collective declares itself incapable of making a decision in this case. Failure in making decisions can lead to the decomposition or dissolution of C.
- (14) Within C, through collective discourse or through the establishment of specific positions, the actions carried out "on behalf of C" are monitored to ensure that they coincide with the collective decisions.

Condition (1) is the core element for collective entities' existence. The formation of such entities is explained by the adoption of some common feature.<sup>50</sup> Particularly relevant for cases of collective agents, which is the concern here, the relevant feature is a goal. The constitution

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von Kollektivmitgliedern empfänglich sind und einen konsistenten Entscheidungsbestand (bzw. Überzeugungsbestand) bilden.

(13) Ergibt sich im Entscheidungsbestand von K eine Inkonsistenz, wird diese im kollektivinternen Diskurs thematisiert, in dem die Revision einer der untereinander inkonsistenten Entscheidungen angestrebt wird. Wird keine Entscheidungsrevision per Mehrheitsbeschluss erreicht, wird die Entscheidung umgangen; ist ein Umgehen inkonsistenten Entscheidungen nicht möglich, erklärt sich das Kollektiv in dieser Sache für entscheidungsunfähig. Entscheidungsunfähigkeit kann zur Aufspaltung oder Auflösung von K führen.

(14) Innerhalb von K wird durch kollektivinternen Diskurs oder durch Einrichtung spezifischer Positionen überwacht, dass die 'im Namen von K' vollzogenen Handlungen mit den Kollektiventscheidungen übereinstimmen."

<sup>50</sup> Gilbert stresses that any correct ascription to a group entail the existence of a group. She suggests that the joint acceptance of other mental states does also bring about the existence of a group: "I remarked earlier that if ascriptions of beliefs to groups are to appear genuinely apt, they will surely refer to a phenomenon involving a group in more than an accidental way. In the case of the summative views considered, it was possible that a set of persons could fulfil the conditions proposed for group belief (other than the condition that they already formed a group) and yet not thereby become a group. If I am right, it is otherwise with the nonsummative account proposed. Any set of persons who jointly accept some proposition thereby become a group, if they were not one before (GILBERT, 1987, p. 195).

of a collective agent depends fundamentally on the adoption of the common goal by some individuals. The common goal is necessary but insufficient. Conditions (2) to (6) establish some appropriate relations that these individuals sharing a common goal must have. These relations are entailed by the kind of commitment the individuals have to the persecution of the goal and generate reciprocal rights and obligations aligned with the attainment of that goal. This interrelation enables every individual to acknowledge her membership in the collective entity. By recognizing the rights and obligations she has towards others and that others have towards her, the individual can identify herself as a member, as well identify the other members that constitute the collective entity. This recognition enables the use of *we* to make reference to objectives and positions of the collective entity.

Conditions (7) to (10) exhibit the organizational structure of collective agents. They demand that a collective entity possesses some kind of structure with functional roles. Functional roles are defined by the tasks assigned to that particular position. This structure defines the division of labor proper to the attainment of the collective accepted goal. The structure might contemplate authoritative positions responsible for further assignments to individual members or external individuals that do not constitute the collective entity. This kind of assigned task will constitute an action ascribable to the collective entity if it is performed “on behalf of the collective.”

Conditions (11) to (13) describe the procedure that secures consistency to the collective agent’s attitudes. First, it is assumed that the collective attitude on a proposition will be formed by means of the majority voting procedure, where the majority of members positioning in favor of a proposition will render this proposition endorsed by the collective entity. In order to preserve rationality, that is, to secure consistency in the set of all collective attitudes formed by the majority voting, a process of revision of attitudes like the straw-vote procedure will be adopted. If the revision is not sufficient to restore consistency, the proposition can be dropped. If this is a central proposition for the purposes of the collective entity, the collective is declared incapable of realizing decision-making process. In some cases, this will lead to the decomposition or dissolution of the collective entity. Condition (14) is a method to ensure that collective actions are aligned with collective decisions.

This description of a practically integrated collective makes explicit reference to the individual-level. The explanation begins with a set of individuals adopting a common goal and establishing a network of reciprocal rights and obligations. This network gives rise to an organizational structure that provides methods for decision-making and relations of authorization and delegation. These features can adequately explain how collective-level

actions and attitudes are dependent on individual-level actions and attitudes. Collectives do not have minds and bodies over and above their individual members. However, a strict reductionist approach cannot capture all the relevant aspects of what is going on when a collective agent acts. In order to give a correct explanation of these phenomena, we must address distinctive collective features such as structure and decision-making process.

By means of the networks of reciprocal rights and obligations, the organization of an authoritative framework that specify tasks and roles within the collective entity's structure, and the adoption of decision-making procedures that meet rationality requirements imposed for proper agents, Schweikard provides an suitable explanation to connect collective-level to individual-level. These elements show that there are legitimate collective judgments that determine what to do and, given the internal structure, these determinations generate task assignments to members or external individuals to carry out specific deeds in behalf of the collective. The execution of these tasks are not based on the individual agents' intentions who perform them. The intention that bases these actions come from the collective-level and reach individual agents by means of the authoritative structure. Therefore, collective entities can be proper agents and figure in the notation of action events:

(XVIII) [O; q<sub>0</sub> (playing symphony); t]?

I am very sympathetic to Schweikard's account and I think that many similarities between our accounts will be easily identified. However, two points of his proposal are not clear to me: (i) individual contributions, and one-member actions, or *proxy action*; and (ii) unintentional actions. The first point concerns the status of individual contributions. Are they completely distinct from actions ascribable to the collective? There is a clear-cut distinction between individuals' (action) contributions events and collective's actions events? What about *proxy actions*, when it takes only one individual to perform the deed assigned by the collective entity? In this case a double ascription is possible? A same event can have two agents? The second point is how Schweikard's account deals with Chant's examples. It is not clear to me that Schweikard argues against the existence of unintentional action. If there really is this kind of action, why Chant's examples cannot amount to unintentional joint actions? I think that the crucial question here is if in order to an event to constitute an action it must be intended. For sure, Schweikard makes clear that intention is a sufficient condition for an event to constitute an action, but is it necessary? What are the implications of such position?

### 3 BASIC ACTION

This chapter addresses one of the main concepts on the metaphysics of action: *basic action*. This is a central concept for theories who deal with action individuation. Both Goldman and Davidson seem to indicate it as the main explanatory element of their theories. For Davidson the real event of action is the movement of someone's body, its consequences, that is, the events caused by it, might allow for a redescription of these movements. So, when John shoots Smith, this is just a redescription for John's fingers' movement, the *real* action, the event that corresponds to the action. Goldman defines action in terms of basic action. Every basic action is an act-token and every other act-token is somehow related to a basic action (via level-generation, aggregation or as a temporal part or sequence, see his complete definition of action in section 2.2.3).

In order to address this particular concept, I will search why we should posit a *basic* element in a theory and what is the source of *basicness* in a basic action. In the next section (3.1), I will offer a brief overview on the epistemological foundationalist theory of justification. This is probably the most discussed, therefore developed, theory that implements a *basic* concept. Basic concepts figure in foundationalist theories in order to solve regress problems. I take epistemic foundationalism as the clearest example of a theory to employ this strategy, so reviewing it might be prolific to discussions of a basic element in action theory.

Next (section 3.2), three different problems of *action regress* are presented. Philosophers identify different ways to indicate the necessity to posit a basic concept in action theory. As will be clear, causation and mental states should be important elements supporting the main intuitions behind these regress problems. The way a philosopher faces the regress problem on action will tend to influence the endorsement of a particular account of basic action. Two accounts of basic action will be discussed in section 3.3. The standard position is that basic actions amount to bodily movements (like Davidson and Goldman, for instance). This position will be dismissed in favor of a basic action account based in know-how.

Finally, the last section (3.4) is dedicated to the instantiation of basic actions in collective actions. The structure of the know-how account of basic action offered throughout this Chapter might limit the application of this concept in collective action cases. My position will be reductionist in this regard, that is, basic actions are always individual actions. Therefore, by addressing the question of basic action in collective action cases it is possible to explain a widely endorsed claim that whenever there is collective action there are individual action, i.e. collective action is dependent on individual action.

### 3.1 WHAT IS A FOUNDATIONALIST THEORY?: THE EPISTEMOLOGICAL EXAMPLE

Philosophical theories that make use of *basicness* are foundationalist theories. Those theories are usually one answer to a regress problem. Epistemic foundationalism is the most well known kind of strategy employing *basic* concepts. In this section I will outline the overall framework of a foundationalist epistemic theory in order to present a consolidated model of how foundationalist theories work.

The epistemic regress problem arises in a justification chain. Justification is usually taken to be a necessary condition for knowledge. On a very simple and rudimentary approach to epistemology, true beliefs are cases of knowledge when they are justified.<sup>51</sup> One example can clarify the matter: in order to someone justify her belief that “Augustus was the first Roman Emperor”, she needs to be able to give reasons in support of this belief, i.e. she needs to have good reasons to believe in the propositional content of this belief. Usually, when someone is asked to justify her beliefs, she will give good reasons, which are further beliefs. In the case of this particular proposition, further beliefs like “My history teacher told us that ‘Augustus was the first Roman Emperor’” or “I read on the book ‘Augustus: The Life of Rome's First Emperor’ that ‘Augustus was the first Roman Emperor’” would be good candidates of further beliefs that might be good reasons for the initial belief. However, if this person has given other beliefs as good reasons to believe in something, it seems necessary that she needs to provide further reasons to justify these beliefs as well. If the person insists in giving more beliefs to justify previous beliefs, she will be in need to provide more reasons for those newly introduced beliefs, and this process would go on establishing an infinite regress.

One solution for such regress is the *foundationalist epistemic theory*.<sup>52</sup> The foundationalist epistemic theory claims that there is one special kind of belief that does not depend on other beliefs to be justified. This special kind of belief is called *basic belief*. They

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<sup>51</sup> This rudimentary approach is the historical standard definition of knowledge as justified true belief. Gettier (1963) counterexamples had shown that this definition is not sufficient. Since then many alternative theories have been proposed, see Ichikawa and Steup (2012) for more, since a close debate on the analyses of knowledge is not the aim here. But even if it is insufficient, the standard definition is a very good starting point for discussing what knowledge is.

It should also be noted that there are some dissent on whether justification is a necessary element for knowledge: “some epistemologists have suggested that positing a justification condition on knowledge was a false move; perhaps it is some other condition that ought to be included along with truth and belief as components of knowledge. This kind of strategy was advanced by a number of authors from the late 1960s to the early 1980s, although there has been relatively little discussion of it since” (ICHIKAWA; STEUP, 2012).

<sup>52</sup> For alternative solutions, see Watson (2016).

are beliefs that are *directly* justified.<sup>53</sup> Once they are directly justified, there is no need to provide further reasons to justify them, and the regress has a stop. Besides stopping the regress, a basic belief has the consequence of providing justification to every other belief on the chain. Going back to our previous example, a belief was justified if further beliefs were offered as good reason to support it. The lack of justification for those further beliefs threatened the justification status of every other belief of the chain. If someone's belief that "I read on the book 'Augustus: The Life of Rome's First Emperor' that 'Augustus was the first Roman Emperor'" was not justified, her belief that "Augustus was the first Roman Emperor" would lack the justification provided by that belief. But, if this person can introduce a basic belief in this chain of beliefs, the justification throughout the chain can be secured.

Therefore, a foundationalist theory of epistemic justification provides two possible cases of justification:

*Foundationalist Theory of Epistemic Justification:*

A belief B is justified if and only if:

- (i) B is basic, that is, B is directly justified; or
- (ii) B is supported by a chain of reasons (possibly only one) that contains a basic belief.

For example, there is a basic belief R that is a good reason for the belief that B; or there is a basic belief R that is good reason for a belief X that is a good reason for the belief B, etc.

This section has sketched an overview on the foundationalist theory of epistemic justification. This theory is designed to offer a solution for a problem of regress. The solution consists in the assumption of a special kind of item in the regress chain that is characterized as *basic*. This special item is capable of stopping the regress and secures the relevant property (in the epistemic theory, the property of being justified) for every other item with which it relates in the chain they compose.

### 3.2 REGRESS PROBLEM ON ACTION THEORY

Philosophers have also identified regress problems in action. Sneddon (2001) points out two questions that might expose this problem: (a) how are complex actions produced?

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<sup>53</sup> The assumption of a basic belief is not the hard problem for the foundationalist theory. The real challenge for them is to provide a good explanation of what is a basic belief, that is, how can this special kind of belief be directly justified. This hard problem will not be of my concern here, since I am just interested in the overall structure of a foundationalist theory, i.e. in the explanation of why we should postulate a basic item in order to stop a regress. See Poston (2016) and Hasan and Fumerton (2016) for further information on the topic of the direct justification of basic beliefs.

(*production regress*) (section 3.2.1) and (b) On what grounds do the events that seem to be actions count as actions? (*status of action regress*) (section 3.2.2). He also mentions the development of the *practical reasoning regress* (section 3.2.3) by Jennifer Hornsby (1980) that could be expressed by the question: (c) by what means I know-how to A? The discussion of this topic is important in order to identify the exact need that a theory of action has to posit a basic entity. Having a detailed account of the problem might help the identification of features that this element must have.

### 3.2.1 The Production Regress

Danto (1973) is taken to be the first proponent of a foundationalist approach to action, being the originator of the concept *basic action* on action theory. Danto's proposal starts from the simple daily observation that: "there occur a great many actions in which what is said to be done – say, A – is not done directly but rather through the agent doing something B, distinct from A, that causes A to happen" (DANTO, 1999, p. 45). The central concept in Danto's observation is causation.<sup>54</sup> Complex actions are those actions that the agent cannot perform directly. They depend on causal relations to be performed and other actions are the relata of this causal relation.

Danto seems to be thinking of a complex action such as "intoxicating the condominium dwellers". This action might be performed by the action of "poisoning the condominium water tank". But this action does not seem to be a directly performed action either. It might have been performed by "dropping a poisonous substance in the water tank". And again it is possible to go further and say that it was performed by "moving her wrist" (while the agent was holding a container with the poisonous substance in her hand). So "intoxicating the condominium dwellers" was caused by "poisoning the condominium water tank" which was caused by "dropping a poisonous substance in the water tank" which was caused by "moving her wrist".

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<sup>54</sup> Sneddon (2001) points out that Danto's proposal is more associated with *production* rather than *causation*. Production is compatible with a criterion that takes into account *composition*, distinctive characteristic of aggregate actions, not restricting itself to causation. Take the action of brewing a cup of coffee. This action is produced (composed) by other actions: (i) getting a cup; (ii) filling the kettle; (iii) turning on the burner; (iv) putting coffee on the filter; (v) brewing the coffee. Sandis (2010) explains that Danto gave up *causation* as the central concept, adopting a more neutral term, *mediation*, in response to problems identified by his critics. Here I will maintain a causalist vein on Danto's proposal given the importance of the concept for the development of action theory and the coherence with other kinds of action regress problems.

Here we have a chain of events that cannot establish a regress. If always there is the need to execute a previous action in order to cause another action (that is, if this is an infinite chain of actions) there would be no action at all:

If as part of doing a I must do b, as part of doing b I must do c ... , and this is perfectly general, it follows that there can be no actions performed at all. This is not because one cannot perform an infinite number of actions in a finite time, but because the regression puts the beginning of any series logically out of reach. So if there are nonbasic actions, there must be actions in which the agent acts directly – where, in order to do a, there is nothing x such that x causes a and the agent does x. These are basic actions (DANTO, 1999, p. 46).

Complex actions are actions that cannot be performed directly, i.e. they depend causally on other actions to be performed. If every action is of the complex kind, an infinite regress is instantiated. It is a non-controversial fact that human beings act, therefore, given that actions exist, there must be some actions that are not complex actions. There must be basic actions. Basic actions are assumed as a logical necessity in order for something to be done. We can formalize this reasoning with an argument for a foundationalist theory of action based on action production:

*Foundationalist argument based on action production:*

(P1) Complex actions are produced by other actions.

(P2) Action chains are finite.

(C) Not every action can be complex, i.e. there are some actions that must be basic (performed directly).

### 3.2.2 The Status of Action Regress

The reasoning that leads Donald Davidson (1971) to propose a foundationalist theory of action also starts emphasizing a regress of the kind: “how are complex actions produced?”. When Davidson is discussing the notion of agency, he also stresses causality as a central concept for action theory: “in every instance of action, the agent made happen or brought about or produced or authored the event of which he was the agent, and these phrases in turn seem grounded in the idea of cause” (DAVIDSON, 2002, p. 48).

Exactly as Danto, Davidson foresees a limit for causal explanation of action. However, this time, Davidson is concerned with the second kind of regress problem in action theory: “On what grounds do the events that seem to be actions count as actions?”. With this other question in mind, we change the perspective with which we analyze a chain of events, employing causation as a good criterion to identify actions among those events. Something is an action if

it was caused by other thing the agent has done (recall Principle D discussed in section 2.3.3). The example from the previous section seems to conform to this claim: we can ascribe to the agent the action of “intoxicating the condominium dwellers” once we identify that it was caused by her “moving her wrist”.

The problem here is how to identify that “moving her wrist” was an action since we cannot see the agent doing something prior to it, i.e. this particular action is not caused by other action as the causation criterion requires to “moving her wrist” be an action. Once again, we face a regress problem and a need to stop it. In this case, the need for the stop is not based on our failure to see further actions beyond “moving his wrist” when we go back in the causal chain of events, but the realization that this failure can make us doubt that a relevant property should be attributed to every event of the chain. It threatens our action attribution, making us ask: “On what grounds do the events that seem to be actions count as actions?”. Davidson is explicitly searching for this kind of explanation:

Not every event we attribute to an agent can be explained as caused by another event of which he is agent: some acts must be primitive in the sense that they cannot be analysed in terms of their causal relations to acts of the same agent. But then event causality cannot in this way be used to explain the relation between an agent and a primitive action. Event causality can spread responsibility for an action to the consequences of the action, but it cannot help explicate the first attribution of agency on which the rest depend. (DAVIDSON, 2002, p. 49).

Instead of employing *basic action*, Davidson bases his causal chain of actions in *primitive actions*, but they refer to the same theoretical object. Similar to the epistemic foundationalism, the status of action regress aims to explain how the items of the chain share a specific property. In the epistemic case, the search was for justification; in the present chain of events, the search is for the status of action. Sneddon (2001, p.510) construe the status of action regress problem in the following way:

Status Argument: ordinary complex actions are not self-legitimizing as actions. That is, these events can occur in roughly the same way, but not be actions. This means that we have to account for their status as actions through appeal to something else. We have to locate actionmaking properties to be sure that events that seem like actions in fact are actions. The “things” we appeal to as actionmakers must stand in no need of further legitimation of their status. Otherwise we would have an infinite regress of legitimation that would cast the status of all seeming actions in question.

The status of action regress permits the formulation of a definition of action similar to the foundationalist theory of epistemic justification:

*Foundationalist theory of action status:*

An event E is an action if and only if:

(i) E is a basic action, that is, has directly the status of action; or

(ii) E pertains to a chain of events (possibly only two) where one of its antecedents is a basic action. For example, there is a basic action A that causes E; or there is a basic action A that causes B that causes E, etc.

### 3.2.3 The Practical Reasoning Regress

The last kind of action regress problem to be presented here is one located in the practical reasoning. This regress is composed of actions and those actions are linked by *means-end* relations. Going back to the example of “intoxicating the condominium dwellers” we might adopt a first-person perspective, from the agent who performed those actions, rather than an observer perspective like the one adopted following Danto’s recommendation of how to analyze the formation of a complex action. In this first-person perspective, it seems plausible that the agent had the following beliefs: “I might intoxicate the condominium dwellers by poisoning the condominium water tank” and “I might poison the condominium water tank by dropping the poisonous substance of this container in the water tank”.

Why stop here? According to the previous presentation of the example, the agent should have another belief: “I might drop the poisonous substance in the water tank by moving my wrist”, but it does not seem right that the agent really need to have this belief and adopt it in his practical reasoning. This is so because the action of “dropping the content of what I am holding” seems a common action on our daily lives. This points to a very interesting feature of this action, the fact that agents usually know how to perform it without using their knowledge how of doing something else. That seems exactly the reason why the practical reasoning should stop with it: actions that an agent knows how to do without using her knowledge of doing something else are actions that she can perform directly.

Horsby (1980) seems to be the first to formulate this kind of regress.<sup>55</sup> I want to highlight here her usage of the concept of *know-how* in the practical reasoning regress. Her regress is constructed in the same way we have just seen. The agent perspective is also distinctive as an intrinsic feature of practical reasoning performance. Means-end beliefs also provide the linkage in a chain of know-how. Making use of our example: knowing how to “intoxicate the

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<sup>55</sup> Actually, she also explores a production and status regress when defending her own foundationalist theory of action. It is possible to locate a status regress in her work: “If only the basicness of something will legitimate an action as an action, we need to establish that every action (...) has its own basic description or property” (HORNSBY, 1980, p. 69). And a production regress too: “In a series of descriptions of an action that speak of the action in terms of its effects, we should be led to a regress unless we could say that at some point the action may be characterized in terms of its most immediate effect, or of no effect at all” (HORNSBY, 1980, p. 88).

condominium dwellers by poisoning the condominium water tank” by means of “poisoning the condominium water tank” by means of “dropping the poisonous substance of this container in the water tank”. Just as in other cases of regress, one element of the chain must be foundational, that is, capable of being directly performed. In this case, the foundational and direct element is something the agent knows how to do without the need to use another know-how to do something else that causes it.

I want to stress that, given this presentation; there is two kinds of know-how: (i) the know-how to do something by doing something else and (ii) the know-how to do something directly, without the need to use the knowledge of how to do other thing that will bring the first about. The first kind is a more *theoretical* knowledge or a *procedural* knowledge, a usual example of this kind of know-how is a recipe to cook soup, for example. Someone might instantiate this kind of know-how to cook a soup without actually cooking a soup. When you tell someone else each step needed to prepare the soup, you are using this theoretical know-how. The second kind is more like a *tacit* knowledge, where the individual possess it but is unable to spell it out. Usual examples of tacit knowledge are speaking a language, playing a musical instrument, riding a bike. How do you transmit the knowledge of how to perform such actions? These examples seem to represent a kind of know-how that is particularly tied with the execution of what one knows. The instantiation of such know-how seems to depend on its actual realization. You know-how to do it by doing it: you cannot tell what you know how to do; you must show how you do it. This second kind of know-how is the one I am concerned when talking about basic action and throughout this work I may use know-how as a short way to refer to a know-how to do something without the need to use the knowledge of how to do other thing that will bring it about.

Getting back to the regress problem, the solution focusing on practical reasoning seems to bring together basic action and know-how. More precisely, this intimate relation might be captured in the following way:

*First Definition of Basic Action:*

The token act of S's doing B is basic if and only if

(i) S knows how to do B,

(ii) In the token act of doing B, S uses her knowledge of how to do B, and

There is no action A of S's such that:

(a) S knows how to do A, and

(b) in order to do B, S needs to use her knowledge of how to do A. (ENÇ, 2003,

p. 54).

The problem with this definition is that it is not very informative; it just organizes the intuition brought by the regress of practical reasoning. However, it offers an important observation. The definition of a basic action should be formulated with tokens and not types. This is so because

know-how is not a determinate category. Each individual has a distinct repertory of know-how and even the same individual might vary her repertory along the times. People learn how to do new things, acquire new abilities and some know-how can be lost, we might not be able to perform some actions anymore. This definition will be refined in the next section.

### 3.3 THE BASICNESS OF BASIC ACTION

The previous section presented different ways the problem of regress can be applied to chains of actions. That discussion was important to locate basic actions in a chain and provide some guidelines to a proper account of basic action. This section will explore the sense of *basicness* that this element must have.

The standard position is that basic actions are bodily movements (3.3.1). This view was offered when philosophers began to propose foundational action theories (DANTO, 1973). It is widely endorsed by philosophers who endorse a foundationalist framework for action but it is usually not defended. The lack of good reasons to adopt it and the existence of some sound counter-examples will lead to the proposal of an alternative explanation for the basicness of basic actions.

The alternative offered here is an account of basic action based on know-how (3.3.2). The central feature to be explored is the idea that there is a know-how capable of stopping the regress of practical reasoning. There is some *\*result\** that the agent can bring about without the need to make reference to another action that would bring it about. This happens because the agent's actional mechanisms are triggered by an intention that makes explicit reference to this *\*result\**. This *\*result\** is part of the agent's basic result repertoire, meaning that her actional mechanisms are disposed to produce this *\*result\** when the agent form an intention containing it. The triggering in response of an intention is the best explanation of what an agent can do directly. Therefore, the specific *\*result\** responsible for the triggering should be considered the basic action, even if this particular *\*result\** was caused by bodily movements of the agent, that is, even if the *\*result\** is not a bodily movements' act-type.

#### 3.3.1 Basic Action as Bodily Movement

When foundationalist approaches to action theory appeared, it was not clear which problem of regress they were dealing with. They seemed to mix up production and status questions (SNEDDON, 2001). Despite the confusion, in order to offer a proper definition for a

basic action the production problem seems to have been preferred. Very roughly, the production regress provides us with a preliminary definition of basic action such as: something the agent can perform directly, that is, without being needed to perform another antecedent action.

Danto's proposal, specifically invites us to think about foundationalism in action based on what we often observe.<sup>56</sup> If we adopt this criterion to identify a basic action, it seems that, when we observe other people acting, what an agent can do directly is moving her body. Every action seem to be originated by a bodily movement, even if not every bodily movement is an action (reflexes like a sneeze or an automatic and uncontrolled movement like heartbeats are not actions). Taking again the example of "intoxicating the condominium dwellers", it is possible to identify a sequence of intermediary actions, but "moving her wrist" seems to be something the agent has performed directly.

Baier (1971, p. 161-162) summarizes clearly the standard position of basic action theorists (b.a.ts.):

The various examples given of basic actions suggest that simple bodily movements are paradigm cases of basic actions. Prichard, before retreating to volitions, instances moving the head as an example of a direct doing. Taylor and Brand offer finger movements, Chisholm gives arm-raising and eye-blinkings. Instances of nonbasic actions are, for Prichard giving a friend the family news, for Danto moving a stone, for Brand knotting a tie, for Chisholm attracting the chairman's attention. When one looks at these cases, one finds that whenever there is reference to something beyond the body of the agent the action is nonbasic, whereas the common feature of the basic action is that all could be described as "moving x" where x names part of the agent's body. I shall take it that the b.a.ts. expect their criterion of basicness, whatever it is, to select actions of this sort, which I shall call mere bodily movements.

Theorists who employ basic action as bodily movements were not able to provide a proper defense for this claim:

If we interpret the idea of a bodily movement generously, a case can be made for saying that all primitive actions are bodily movements. The generosity must be openhanded enough to encompass such 'movements' as standing fast, and mental acts like deciding and computing. I do not plan to discuss these difficult examples now; if

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<sup>56</sup> This seems to be a behaviorist heritage and it might explain why bodily movements had a great influence on the literature about basic action. Hornsby (1986, p. 280) explains this influence this way: "Our objector had some definite ideas about why we should need to determine what is and what is not literally visible among attempts, movements, and actions. He thought that when we look at people, only some of their features - or only some of the events that go on where they are - are open to view, whereas others are hidden; and knowledge of others needs to be based on what is open to view."

Enç (2003, p. 51) also stresses the behaviorist heritage as an explanation for the primacy of bodily actions as the solely correct representatives of basic action: "If psychological states, like beliefs and desires, are to be functionally defined, then part of their identity conditions will be constituted by the types of actions they cause. But if some of the things they directly cause are actions 'broadly construed', like waving hello, then they cannot be defined in terms of mere bodily actions, which, coupled with conventions, norms, or causal connections among events, constitute these broad actions. This in turn would mean that the identity of psychological states will violate the autonomy of psychology, sometimes referred to as the principle of methodological solipsism, that is, the identity conditions for the concepts used in psychology will then be partly derived from social norms or conventions or laws of physics. The only way to avoid this is to insist that basic acts must be publicly observable bodily movements."

I am wrong about the precise scope of primitive actions, it will not affect my main argument (DAVIDSON, 2002, p. 49).

A person's action often has far-reaching effects in the world, but whatever one does in the world at large must come, in one way or another, from one's body, especially from the movements of one's body. Thus, there is a central role that bodily acts play vis-a-vis our acts in general, and this special role is intended to be captured by the phrase "basic acts".<sup>57</sup> (...) the concept of a basic act-type is not as clearcut as I would like. At any rate, it may not be restricted exclusively to "bodily-movement" properties, such as raising one's hand, turning one's head, lifting one's foot, etc. For the sake of simplicity, however, I shall henceforth assume that basic act-types include only bodily movement acts of this sort (GODLMAN, 1970, p. 18 and 68).

This lack of a proper defense for the idea that basic action is a class composed exclusively of bodily movements' act-types invited criticism. Baier (1971) offers some counter-examples where the bodily movements that compose some actions do not seem to be an action or do not seem to be what the agent is doing directly: (i) the gestalt lace-tier, who can tie a lace easily, but is not capable of showing the exact movements she does in order to tie the lace (it can also be supposed that she is incapable of teaching step-by-step what someone should do in order to tie a lace); (ii) the smiling savage who has never seen the reflex of his face when she is smiling, so she does not know the movements her face does when she smiles. In both cases, it seems more correctly to say that these agents had tied the lace or smiled directly rather than moved such and such muscle or body part. Baier does not deny that those actions are performed through bodily movements, but it seems implausible that those were the things the agent has performed directly.

Sneddon (2001, p. 519) offers a similar counter-example: "It seems to me, for example, that I buy newspapers 'at will,' yet this is quite clearly a complex action". Sneddon points out that: "We routinely encounter people doing things by doing other things. Instead of observing basic actions, we see actions that are better described as 'more' basic than others". This seems to be a problem for foundationalist theories of action. It shows that there is no fixed class of objects that correspond to basic actions. The *bodily movements*' class does not seem to be always what someone does directly. This vagueness might render the concept of basic action useless for a foundationalist theory of action.

Enç (2003) states that we find ourselves with a dilemma: we should abandon the idea that basic actions are those things that an agent can perform directly; or we should drop the assumption that basic action corresponds to the class of *bodily movements*. I will follow Enç

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<sup>57</sup> This passage make it clear that the lack of justification for this concept is not in virtue of it not being relevant for action theory, quite on the contrary, it has a fundamental role: "We must conclude, perhaps with a shock of surprise, that our primitive actions, the ones we do not do by doing something else, mere movements of the body—these are all the actions there are. We never do more than move our bodies: the rest is up to nature" (DAVIDSON, 2002, p. 59).

and reject the assumption of traditional foundationalist theories of action. Basic action is not composed exclusively by instances of mere bodily movements.

### 3.3.2 Basic Action as Know-How

In this section, I will present Enç's proposal for the concept of basic action that do not limit this class of actions exclusively to bodily movements act-types. However, it cannot be denied that bodily movements are essential elements of overt actions (those that have some consequence in the world; that extend beyond the agent). For instance, the action of opening a beer bottle (one event) is caused by a series of coordinated arm-wrist hand motions (another rather complex event) caused by one's intention to open the bottle. The present proposal will aim to explain why we should regard the opening of the beer bottle as the basic action, instead of the set of bodily movements that brought it about.

The strategy will consist in an analogy with ethology. By identifying some peculiarities of the goal oriented behavior of simple animals we can construct an anatomy of action that enable us to identify the precise causal role of intentions, the operation of our actional mechanisms, and locate more adequately which event should count as a basic action:

The model then will serve as an analogy for how certain intentional states of rational agents control macro outputs, such as a smile, the tying of a knot, the playing of a tune on the piano, or running fast, rather than particular sequences of muscle or limb movements (ENÇ, 2003, p. 55).

One core element of this proposal is the concept of know-how. I already presented one definition of basic action that depends on know-how in the practical regress problem (3.2.3), that definition will be refined here. Previously, I highlighted that the particular know-how addressed here fits in the end of a practical reasoning process, in the sense that the agent do not need to use her know-how to do something else in order to put this know-how to use. It is an essentially executive kind of know-how (similar to *tacit* knowledge, where you instantiate it by doing it). This is exactly the feature that provides the explanation needed to locate the precise event that counts as a basic action.

#### 3.3.2.1 An Ethology Approximation

Enç develops his know-how centered proposal of basic action based on an analogy with the explanation ethologists give to simple animals' *goal oriented behaviors*. I think this

approach is interesting because it can clarify the way bodily movements relate to action. This approach can specify which event is a basic action.

This proposal has at its core the concept of basic behavior repertoire:

The Basic Behavior Repertoire of organisms consists of macrounits of (types of) bodily outputs such that:

- (i) the higher centres of the organism have the capacity to directly trigger these units, and
- (ii) these higher centres have no causal access to the inherent plasticity that these units possess (ENÇ, 2003, p. 66).

This definition suggests the existence of a subsystem responsible for the production of some bodily movements which is capable of bringing about a \*result\* desired by the organism. This subsystem has an inherent plasticity, that is, in order to bring about the desired \*result\*, different set of means could be employed by the subsystem. In particular, given the circumstances in which the organism finds itself, the subsystem can instantiate different set of bodily movements in order to bring about the desired \*result\*.

This plasticity is stressed by animals' behavior studies. Take for instance Skinner's pigeon. The pigeon was not taught to perform specific movements, he was taught to bring about certain state of affairs, namely, having a key pressed. Even if different sets of bodily movements were performed, but the \*result\* achieved, the pigeon was rewarded:

(...) it is a physiological fact that pigeons do produce different (new) sequences of muscular movements that get the key depressed after the conditioning. So what the pigeons learn is to do something that gets the key depressed. We may not know yet what the correct description of that thing is, but we do know that what they learn is not to exactly reproduce one of the dozen sequences that were used during the conditioning (Enç, 2003, p. 61).

This executive subsystem must be responsive to the circumstances in order to generate an appropriate set of bodily movements, where an appropriate set of bodily movements will be one that is capable of bringing about the desired \*result\*, and the higher center do not intervene in the functioning of the subsystem. Enç (2003, p. 64) clarifies this point with an example:

When the cockroach issues the command 'walk', the lower servomechanistic centres take over and continue to carry out the task until a new command is received, determining in which sequence the legs are to be activated, adjusting for the terrain, balancing the force with which the legs are to be moved, while the command-issuing centres 'turn their back' on the task and 'attend' to other matters, like obstacles looming in the way, scents detected in some direction, and so on.

The ability of the subsystem to select the appropriate set of bodily movements denote the possession of a know-how by the organism. When a subsystem is capable of selecting different sets of bodily movements that are effective to bring about the desired \*result\*, showing its adjustment to an array of different circumstances, we might correctly ascribe a

know-how for the organism. The organism knows how to bring about the specific type of \*result\* being desired.

Having analyzed the lower subsystem, let us discuss what role the *higher centres* play in this proposal. The higher centres are exactly the elements that provide the status of action to the \*result\*. Without the higher centres, if the subsystem would operate on its own, there would only be a set of mere bodily movements. Following the scientific driven analogy, the subsystem that controls bodily movements would only demand a physiologist explanation of how these movements are produced. With the introduction of higher centres like the ones present in human beings, action explanation also requires a psychological rationale:

When we move from protozoa, through cockroaches, birds, to mammals, somewhere along the journey, we, friends of folk psychology, encounter intentional states that have a basis in reality — that are not merely constructs of a false theory, or the heuristic instruments of a particular stance. Once we assume that this is true, the theoretical importance of the distinction between action and 'mere' behavior becomes apparent: actions are behaviors that are relevant to a science of psychology that admits folk psychological attitudes.<sup>58</sup> (ENÇ, 2003, p. 68).

In human beings, the higher centre is responsible for practical reasoning. The outcome of a practical reasoning is an intention. The execution of this intention will start when the subject has an intention whose content expresses some action available in her basic behavior repertoire: “If the content of the intention matches an item in one's repertoire of basic acts, and if the conditions are right, the formation of the intention becomes sufficient for its execution by the lower subsystems” (ENÇ, 2003, p. 71).

In the previous example of “intoxicating the condominium dwellers”, the practical reasoning halted when it arrived at the intention to “drop the poisonous substance of this container in the water tank”. The practical reasoning comes to a stop, since it seems plausible that a human being has the know-how to “drop the substance of a container”, that is, the agent's subsystem is capable of selecting an appropriate set of bodily movements (given the circumstances that the individual is in) that produces the action explicitly referred by the intention that halted the regress.

The important analogy between simple animal's goal oriented behavior and human action is precisely what helps us locate the basic element we are searching for:

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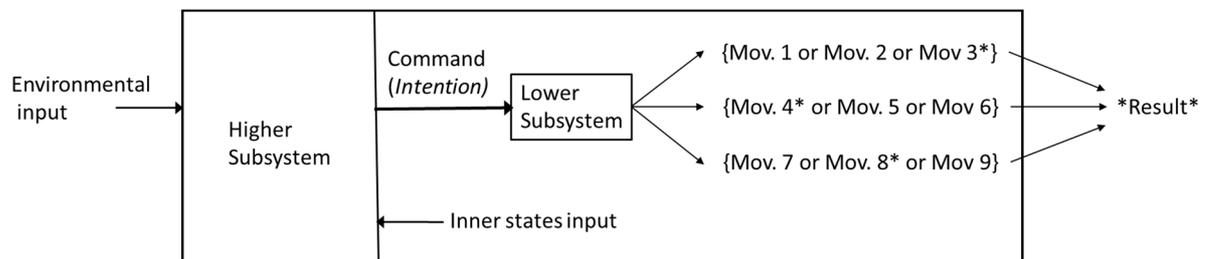
<sup>58</sup> I will not detail every element of Enç's defense here. His presentation gives more attention to other instances of creatures' *higher centres*, I am skipping to the human case. A very important feature is preserved: the subdivision in two levels, one responsible for determining the goal and the other responsible for the execution of a set of bodily movements capable of attaining the designated objective. I will pay no attention to this structure in other animals. Enç briefly comments on the possibility of other animals being capable of bearing folk psychology entities such as beliefs, desires and intentions. He thinks it might be appropriate for some animals to bear these items, but he does not offer a demarcation criterion. This delimitation is not relevant for his overall proposal, nor my use of it here.

When we ask, ‘what is the first, most basic, goal-directed behavior of the cockroach?’ the correct answer will have to lie in the proper description of the ‘package’ that is triggered by the causes located in the system, the function of which is to set goals and to select the means for reaching those goals. In this way, the basic behaviour of the cockroach will be walking, and not, for example, the sequence in which its muscles are contracted and relaxed (ENÇ, 2003, p. 66).

This same reasoning can be applied to human action when we identify the subsystem (practical reasoning) that generates the triggering element (intention) with a specific content (basic action). When there is the triggering, the actional mechanisms enters in play and the higher subsystem does not take part in the way it selects an appropriate bodily output (contraction of muscles, limb movements, etc.): “knowing how to do something, B, without needing to use one's knowledge of how to do something, A, in order to do B boils down to a capacity rational agents have of getting B done without needing to cognitively control how it is done” (ENÇ, 2003, p. 71).

A general schema of how these subsystems operate might highlight the autonomy of the lower-subsystem in regard to the selection (\*) of specific limb movements and muscles contractions, as well the triggering of this lower-subsystem by means of a *command* issued by the higher-subsystem that makes explicit reference to the *\*result\**:

Figure 8 – Anatomy of Action



Source: Adapted from Enç (2003).

### 3.3.2.2 A Definition of Basic Action

The proper definition of basic action offered by Enç (2003, p. 71), depends on the concept of basic result:

*Definition of Basic Result Types (BR):*

An event type E during time period T and under circumstances C is a basic result type of S's if and only if:

During T and under C, S knows how to bring about E, and S does not need to use her knowledge of how to bring about a different event in order to bring about E.

This first move is motivated by the fact that a definition of basic action cannot have *action* in its *definiens*. In order to play the role they have in the status of action regress, i.e. granting the

status of action to the other actions related to it, the definition of basic action cannot make use of *action*; this status must be explained rather than postulated.

In order to explain the functioning of the know-how present in that definition, Eng present an alternative version that makes reference to the division of labor in subsystems influenced by the ethological explanation of animal behavior presented in the previous subsection:

*Alternative Definition of Basic Result Types (BR')*

E, a type of act-neutral event or state of affairs, is a basic result type for S (during T and in circumstances C) if and only if:

A command by the higher cognitive centre to make E the case issued to the lower (subdoxastic) systems would be effective during T and in circumstances C (i.e. the command to make E the case is sufficient in circumstances C to bring about E) (ENÇ, 2003, p. 70).

Here we put in use the discussion of the previous subsection. This definition highlights that a basic result is an event brought about by a lower subsystem, when it receives the command to bring that event about. This command (an intention) is issued by a higher subsystem (the higher cognitive centre) that do not interfere in the selection of the effective means to bring about the event. This selection is exclusively under the control of the lower subsystem. The independence of these subsystems is an important feature of this particular division of labor:

The notion of a basic result type for subject S (during time period T and circumstance C) exploits a distinction. On the one hand, there is S's higher cognitive centre, which deliberates, decides, and issues intentions, that is, a centre where practical reasoning takes place. On the other hand, there are S's lower systems whose function is to 'translate' those intentions into physical activity (ENÇ, 2003, p. 70).

With this notion of basic result, it is possible to formulate a more precise definition of basic action:

*Definition of a Basic Act Token (BA):*

A is a token Basic Act if and only if:

- (i) the \*result\* of A is a token of a Basic Result type of S's;
- (ii) the \*result\* of A is caused (in the way it is normally caused) by an intention of S's which includes an explicit reference to bringing about that type of result; and
- (iii) in the particular circumstances in which S brings about the \*result\* of A, S does so without using her knowledge of how to bring about any other event in order to bring about the \*result\* of A. (ENÇ, 2003, p. 74).

Condition (i) settles a restriction in the class of events that can qualify as \*results\*; that is, events that might be actions if further conditions are satisfied. The central element to do it is the know-how criterion. Events such as blushing, sneezing, sweating, nerve signals sent from the brain to the muscles, etc. are, usually, not part of someone's basic \*result\* repertoire:

In the way it is formulated in clause (i) of BA, events that are not basic results cannot be basic acts even if they are caused by the intentional states of the agent. And travelling nerve signals, or any of the events further upstream in the production of a macro behaviour, do not qualify as basic result types for most agents simply because the deliberative faculty does not 'know' how to send nerve signals directly in the sense

explicated above—perhaps because the subsystems that receive the commands from the intentional centres are not equipped to respond to commands like ‘Send nerve signals!’ Accordingly, sending nerve signals to one’s muscles will not be a candidate for basic acts (ENÇ, 2003, p. 76).

Condition (i) also teams up with condition (ii) to render this proposal a causal theory. The overall framework of a causal theory is that for some member of the category  $\phi$  to count as a member of the category  $\psi$ , one element of  $\phi$  must have a particular type of causal history. To the particular case of a *causal action theory*, a non-action neutral event ( $\phi$ ) must have been caused by the intention of the agent (causal history) in order to be a basic action ( $\psi$ ). Enç (2003, p. 75) stresses some elements of this intention in order to it figure as an appropriate causal history:

The content of the intention includes an explicit reference to bringing about such an event. This satisfies the need for some privileged set of acts that are caused by certain intentional states the content of which corresponds to the description of the act — the description here being the bringing about of a \*result\*.

This pair of conditions is very important in the sense that they address the difficult issue of explaining the bodily movement inherent to every case of overt action without setting aside our folk psychology concepts. Quite the contrary, it explains the place of bodily movements and intentions in a theory of action.

Condition (iii) operates in the opposite direction of condition (i). As seen, condition (i) restricts the class of events that can figure as \*results\* due to the notion of know-how being employed. Condition (iii) enlarges this class. The idea being captured by condition (iii) is that the basic result repertoire of an agent has a certain hierarchical structure between the \*results\* it contain. A simple example might enlighten this feature: when you flip the switch in order to turn the lights on, it is quite plausible that the flipping of the switch is your basic action, i.e. the switch being flipped is the basic \*result\* in your repertoire. This is so because you do not need to use any other know-how to do it. However, it is obvious that you move your finger to flip the switch. In this sense, your know-how to flip the switch is not essentially basic, given that you could know-how to do it by actualizing your know-how to move your finger. Condition (iii) explains why such cases do not present a problem: “If in the tokening of some act one does know how to bring about the component \*results\* of the act and yet this knowledge is not being used, then the token will be a basic act” (ENÇ, 2003, p. 73).

Before advancing to the exploration of this particular definition of basic action in cases of collective action, it should be noted that trying to explain basic action with know-how is not Enç’s innovation. Searle (1980, p.65-66) offered a similar strategy but has not developed this intuition:

(...) we might indeed define a basic action as follows: A is a basic action for an agent S iff S can do A and S can intend to do A without intending to do any other action by means of which he intends to do A. (...) Notice that this definition would make an action basic only relative to an agent and his skills; what is basic for one agent might not be basic for another. But that may be a useful way to describe the facts: for a good skier making a left turn can be a basic action. He just intends to do it and he does it. For a beginner to make a left turn he must put the weight on the downhill ski while edging it into the slope, stem the uphill ski, then shift the weight from left to right ski, etc., all of which are reports of the content of his intentions in action. For two agents the physical movements might be indistinguishable even though one was performing a - for him - basic action and the other was performing the same action by means of performing a basic action.

It seems that Goldman was also developing his account of basic action guided by intuitions embedded in know-how. His definition of basic action is: “Property A is a basic act-type for S only if it is true that if S wanted to exemplify A (at t), he would exemplify A (at t)” (GOLDMAN, 1970, p. 64). In order to rule out the definition of basic action as know-how, privileging basic action as a class exclusively composed of bodily movements act-types, Goldman (1970, p. 65) argues that the previous definition is necessary, but not sufficient:

It is not a sufficient condition because properties such as imitating Jimmy Stewart or making oneself see double would satisfy this condition, at least for many agents. Many agents are able to imitate Jimmy Stewart at will and are able to make themselves see double at will. If they want to perform the act (exemplify the property) of imitating Jimmy Stewart, their want results in their actually performing this act — they simply proceed to talk in a certain distinctive, halting manner. Similarly, if these agents want to perform the act (exemplify the property) of making themselves see double, their want results in this act — they simply press their eyeballs. But these are not properties we would like to classify as basic act-types.

Goldman follows the second option of Enç’s dilemma; he sticks with bodily movements act-types as the only type of action that can compose the category of basic action, even granting that some complex actions (which are not bodily movements’ act-types) might be performed directly. He tries to argue for this position saying that: “A is a basic act-type for S only if S’s ability to exemplify A at will does not depend on level-generational knowledge (belief)” (GOLDMAN, 1970, p. 65). Let us try to apply this consideration to the case of turning on the lights, for instance: when I turn on the lights, I might use my know-how to turn on the lights. But I also know that in order to the lights be turned on, the switch must be flipped and my arm must move in some way. Even though the agent might have a set of knowledge involving the causal chain in the way presented, if she possess the know-how to turn on the lights, she would not be applying her know-how to flip the switch or move her arm.

I think that Baier’s (1971) counter-examples to the idea of a restrict class of basic action as bodily movements poses great threat to Goldman’s attempt to rule out a basic action as know-how account. Two of those cases might indicate that Goldman’s appeal to a knowledge of level-generation will not help the claim that basic action must be a bodily movement.

The first case is the smiling savage, that has already be cited before, where the agent does not know what she is doing with her face when she is smiling. This seems to be a strong counter-example, because the savage does not have the belief Goldman is requiring. It is quite plausible that some agents do not form beliefs about bodily movements level-generating intended \*results\*. Therefore, there would be cases where the agent has the ability to exemplify some act-type directly (at will) not possessing a level-generating belief about the bodily movement appropriate to do so. Making use of Goldman's own example, he says that imitating Jimmy Stewart might be level-generated by (among other things) talking in such and such a way. It does not seem doubtful that talking is something ordinary agents can perform at will, however it is far from clear that people have knowledge of how their tongues, vocal chords and lungs move in order to bring about the action of talking.

The other case shows that Goldman's required belief might have as consequence the regress of basic action beyond bodily movements. Baier (1971) conceives an example where a physiologist knows that she straightens her fingers by means of firing some neurons in her brain. This seems to be a level-generation belief, since there are two events linked by the preposition *by* and are related to the agent. Taking Goldman's belief condition, this would entail that the firing of the neurons must be the basic action; therefore, basic actions would not be exclusively bodily movements. There are other reasons why this seems wrong. Given that this particular belief does not influence the agent's practical reasoning process, it is doubtful that it should matter to the execution of the action. However, things get more complicated when we contrast the physiologist straightening her fingers to ordinary agents that lack knowledge of physiology. Those who lack knowledge of physiology would not bear the belief that she straightens her fingers by means of firing some neurons in her brain. Certainly, ordinary agents are capable of straightening their fingers directly (at will), and not having the level-generation belief will make it the case that this would be a basic action. So we will have a rather different answer to which action is basic, depending on the set of knowledge (beliefs) agents have about level-generation. Therefore, Goldman's strategy of preserving basic actions as exclusively bodily movements by means of a belief about level-generation does not work.

In this section, I presented the basicness of basic action by locating it through the agent's intention as a guiding criterion. The agent's intention seem to secure the adequate relation an agent maintains with a \*result\* that qualifies as a basic action. This particular proposal is based on the concept of know-how. The basicness is derived from the fact that the know how to perform a basic action does not depend of another knowledge of how to bring about the \*result\* of that action. This know-how seems to be of a special kind, similar to *tacit* knowledge, where

its instantiation is dependent on the actual performance of the action. This denotes the executive feature inherent of this concept. Some agent has the know-how to do something when its actional mechanisms (a subsystem of the organism) is disposed to bring about a set of bodily movements that can produce the \*result\* explicitly referred in the intention that triggers it.

### 3.4 BASIC ACTION IN COLLECTIVE ACTION

In the last section, I presented a notion of basic action in terms of know-how. This know-how is very specific, it is some sort of disposition of a lower subsystem of an organism to produce a bodily output that will bring about the \*result\* explicitly represented in the intention that trigger's it. As highlighted before, this concept seems close to *tacit* knowledge in the sense that its instantiation is connected with the proper execution of the known ability. This notion can be contrasted with a *procedural* knowledge that is the know-how to achieve an end by means. You have procedural knowledge of cooking soup if you know every ingredient it takes and know each preparation step needed to make that soup. In this kind of know-how you do not actually need to make a soup in order to instantiate the know-how to make it. In the procedural knowledge, you know how to do something by knowing the means that leads to it, you know the procedures to bring about an end. In the tacit knowledge, you know how to do something when you do not use your know-how to do something else in order to bring it about. This lack of need for further know-how is where to locate the directness of basic action.

In this section, I will try to apply this basic action as know-how framework for collective action cases. The first step (3.4.1) is to try a direct application of the framework. Since basic action seems to depend on a two-level structure, I will try to fit it in terms of organizational structure, that also presents distinct levels, and in terms of the individual-level and collective-level distinction. I will also try to compare it with *collective pattern-governed behavior*; a concept Tuomela (2002) utilizes to explain social practices and actions.

I will argue that these attempts fail, leading us towards eliminativism of collective action (3.4.2). The failure in finding a suitable analogy of the know-how framework within the ontology of collective entities seem to be exhibit that these entities are incapable of performing basic actions. Given the fundamental role this kind of action plays in the ontological structure of action, the inability of collective entities to perform actions directly could imply that they do not perform actions at all. Ludwig (2014a) endorses this position, for instance. However, I do not think that the failure to identify a distinctive collective basic action necessarily imply the eliminativist position. I will argue that basic action has a reductionist characteristic on collective

actions (3.4.3). The basic behavior repertoire of collective entities is composed of the basic behavior repertoire of their individual members. This claim should provide some support for the widely endorsed idea that whenever there is collective action there are individual action, it might show more precisely how collective action is dependent on individual action

### 3.4.1 Searching for an Analogous Structure

This first step towards the *collectivization* of basic action will be an attempt to find an analogous application of the know-how structure for collective action cases. The core of the individual basic action as know-how account is the organization of an agent in subsystems. There is a *higher centre* responsible to issue an *order* to another subsystem. Intentions are the elements who perform the linkage between these subsystems. Whenever the lower subsystem receives an *order* it must be able to select a set of bodily movements capable of satisfying this *order*, i.e. capable of bringing about the result explicitly contained in the intention. In this section I present three possible analogies between this core framework and the general structure of collective entities: (i) hierarchical structures; (ii) individual level and collective level; (iii) collective pattern-governed behavior.

#### 3.4.1.1 Hierarchical Structure

Know-how is the product of a division of labor between two subsystems. It is possible to find division of labor in collective entities. Actually, this might be the main reason for the creation of a collective entity. When there is some sort of division of labor, some members of the collective will perform determinate actions while other members can dedicate themselves to the performance of other activities. This kind of design for the collective entity resembles a *horizontal* structure, where the collective entity has a number of tasks to be made and distribute them among its members. However, collective entities usually adopt a *vertical* design, establishing a hierarchy. A hierarchy creates a framework for the social entity with higher and lower levels, similar to the know-how framework.

However, the hierarchical structure does not seem to operate in the same way as the know-how subsystems' structure works (and should be noted that if the analogy would favor a hierarchical structure, horizontal collective entities would be left unexplained). Higher members of an organization do not just plan the desired results for the entity, even if this is one of their main tasks. In big companies, members that compose the top of the hierarchy are

responsible to negotiate important deals, presidents of philanthropic organization often are involved in fundraising activities directly, etc. Besides that, there are other activities that relate hierarchical ranks directly, what was not observed in the know-how framework. The know-how subsystems are interdependent, but both of them have autonomy in the execution of their roles. In collective entities, for instance, managers are responsible for control and evaluation of their subordinates. This kind of relationship was ruled out in the know-how structure, the higher centre does not intervene in the way the subsystem executes the *order*, i.e. there is a plasticity inherent to the subsystem and it is solely responsible for choosing which set of bodily movements will be performed by the organism. Lower ranks of corporations do not enjoy this amount of autonomy.

In conclusion, the design of collective entities in hierarchical levels is not analogous to the know-how framework. The top of the hierarchy is not limited to planning and issuing *orders* to its subordinates. It does not seem plausible that every execution should be delegated to the lower level of the hierarchical structure. The degree of interrelation between ranks in collective entities is much higher and more complex than that observed in the subsystems that compose the know-how framework.

#### 3.4.1.2 Individualism

Another way to construct an analogy between the know-how framework and collective cases is identifying the subsystem responsible for the performance of the set of bodily movements with the individuals that compose the collective entity. Adopting this view, individual action (the contributions each member perform to achieve a collective result) would be considered *mere behavior* from the collective perspective. Only aggregate results of individual actions would be ascribable to the collective entity. However, this view seems vulnerable to counter examples. Sometimes it seems appropriate to ascribe to a collective parts of the aggregate result, that is, also ascribe to the whole collective the individual contribution made by a member. When a terrorist group intends to “generate chaos in the city” and plans to do so by executing a series of attacks in different locations, it does not seem wrong to ascribe each attack (bombing or shooting) to the whole group. This kind of case suggest that there is no clear-cut distinction between actions performed by the individual members of a collective and properly aggregate effects ascribable to the whole collective. Specifically, it seems to suggest that we are willing to ascribe the same action to the individual agent that performed it and to the collective agent of which she takes part.

Probably the most well known case of this double ascription is proxy agency. Ludwig (2014b) discusses cases where only one member of the group acts, but this action is correctly taken to be an action ascribable to the whole collective. One instance of such a case would be a manager paying a bill. Albeit this action was performed by only one individual, the company ceases to be in debt. It seems obvious that we should ascribe the action to the company. We could try to prevent this double ascription by defining more precisely what the manager did, specifying that he just “delivered an amount of money that covers the debt to the beneficiary” or “inserted the code in order to authorize the transaction”. Once again, there is an attempt to define precisely the individual level action and show that it is distinct from the collective level action. I do not think this strategy works. It seems more plausible that this individual had an intention with an explicit content directed to making the payment and not any other action that she knew as a means to make the payment. If this is right, it suggests that the payment could be a basic action of this individual, since paying bills is somewhat a usual activity that people perform, it is possible that someone is able to perform it directly.

This might seem odd, since payments are a rather complex action. But Sneddon, one of those who criticize the conception of basic action, offered a counter-example along similar lines. Sneddon (2001) considers his action of buying the newspaper as something he can perform directly. I do not see any reason to object his view on this matter. Even if buying the newspaper or paying the bill are rather complex actions, some habits might render their execution quite automatic. If this is correct, an agent might stop his practical reasoning before forming intentions with explicit content of “getting money from the pocket”, everything being executed by the subsystem responsible for the generation of a behavior that leads to the desired result of “buying the newspaper”.

#### 3.4.1.3 Collective Pattern-Governed Behavior

One last try to identify the know-how framework in collective cases is to inquire whether there is some concept with the same role. Tuomela (2002) seems to offer one concept that might do the job of know-how in cases of collective action. He calls it collective pattern-governed behavior. This notion is developed based on Sellars’ pattern-governed behavior and resembles an explanation for know-how.

Specifically, Sellars offers the concept of pattern-governed behavior exploring the distinction between following a rule and acting in accordance with a rule.<sup>59</sup> In order to follow a rule, it is necessary that the agent have the intention to do so. By contrast, someone might simply act in accordance with a rule without following it (when you mimic others' behavior but do not know what exactly you are doing, for instance). Sellars introduces pattern-governed behavior in order to make a middle ground between these two ways to behave relative to a rule. They are cases where we can say that someone is following a rule without entertaining it. This is so, because the agent is acting in accordance with the rule without an explicit intention to do so, but her behavior is not accidental. Since it is not accidental, the behavior is meaningful. Trying to define what this class of behavior is, Sellars (1973, p. 9) seems to indicate that they are some kind of conditioning:

Roughly it is the concept of behavior which exhibits a pattern, not because it is brought about by the intention that it exhibit this pattern, but because the propensity to emit behavior of the pattern has been selectively reinforced, and the propensity to emit behavior which does not conform to this pattern selectively extinguished.

One way to interpret this concept might approximate it to know-how. Specifically, the verbal behaviorism defended by Sellars (1973, p. 10) can be seen as a way to explain someone's know-how to think: "The basic point to bear in mind is that a piece of patterned governed behavior is as such not an action (though actions can consist of sequences of pattern governed behavior)". Trying to bring this claim to the know-how framework, pattern-governed behavior would be the product of a subsystem responsible for the selection of determined (correct) structured sentences.

However, if we proceed this way, there is a disanalogy between the operation of pattern-governed behavior and the know-how framework. In the pattern-governed behavior, there is no plasticity: they are dispositions to bring a specific result ("This is red", as a patterned governed response to red objects). In the know-how structure, a specific intended \*result\* amounts to the basic action, and the lower subsystem has plasticity, that is, it could select one behavioral output from a set of different options, all of them capable of bringing about the intended result (e.g. I could turn on the lights with my left hand or with my right hand).

Another element of Sellars' account can clarify this disanalogy. Sellars states that pattern-governed behavior follows a special kind of rule, an *ought-to-be rule*. These are rules of criticism, they state what should be the case, what is correct. They endorse a particular state

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<sup>59</sup> The main point Sellars is trying to make is arguing in favor of the priority of language over thinking. Tuomela is also interested in this communitarian discussion (the thesis that concept use is socially determined). I will not pay attention to this specific topic here, since I do not see it as a relevant discussion for the role collective pattern-governed behavior shall have in collective action.

of affairs without considerations of how it should be achieved. This kind of rule is to be contrasted with an *ought-to-do rule*, which is the kind of rule followed in an instance of action, where the agent intentionally follows the rule. Applying this distinction to the disanalogy, it should be noted that the plasticity of the subsystem of the know-how framework does not follow any *ought-to-be rule*. The plasticity entails that there is a set of different behavioral outputs (set of movements) that the lower subsystem might employ in order to attain the intended \*result\*. This set of different possibilities rules out any kind of *ought-to-be rule* being followed by the subsystem. The only rule being followed is an *ought-to-do rule*, since the selected behavioral outcome must be one that can attain the intended result.

To sum up, the behavioral output produced by the lower subsystem in the know-how framework and the pattern-governed behavior are elements constituents of actions but they are not actions themselves. However, there is a disanalogy in the sense that pattern-governed behavior is a kind of conditioning whereas the subsystem has an inherent plasticity. The pattern-governed behavior always generates a specific result (following an *ought-to-be rule*) whereas the subsystem has autonomy to select one output among a set of possible alternatives. When someone learns to use the concept *red* she obtains the disposition to say “This is red” when confronted to a red object. When someone learns how to tie a lace, she does not learn a specific set of movements; she makes the subsystem capable of responding to the intention of “tying a lace” (which amounts to following an *ought-to-do rule*).

Even if Sellars’ project is not quite the same as the know-how framework, it is possible that the transposition for collective cases will not be affected by the observed disanalogy. Tuomela’s (2002) account employs collective pattern-governed behavior as the base for social practices (social practices are understood by Tuomela as reiterate social action). Here is Tuomela’s (2002, p. 57) definition of this concept: “collective pattern-governed behaviors are non-intentionally exhibited but representationally meaningful elements (or parts) of collective social actions [involving more than one individual] performed because of relevant social reasons (we-attitudes).” This definition seems promising in bridging the disanalogy, since there is the presence of a social reason, a we-attitude, that could provide the ought-to-do rule. And things get more promising with the following statement:

I would like to point out, however, that it is possible on merely conceptual grounds that pgbbs [pattern-governed behaviors] occur even without being embedded in conduct actions. However, I will assume below that they will always be embedded in intentional actions, partly on the basis of our common-sense knowledge and partly because of the general hypothesis that, whenever awake, a human being is performing some action intentionally in the conduct sense (TUOMELA, 2002, p. 59).

Tuomela's first example of a collective pattern-governed behavior instantiated in a case of collective social action seems very close to an instantiation of know-how:

(...) the collective social action of making a certain kind of pot, which requires a special ingrained skill, say, a special hand movement that de facto cannot be performed without the learned skilled action in which it is embedded. (The hand movement type can be a bodily action type – something that can be performed directly on purpose – but my analysis also allows that it is not an action in this conduct sense.) The pgb here can be regarded as the non-intentionally performed hand movement having a certain result (TUOMELA, 2002, p. 59).

This description of the pot-making activity is very similar to an instantiation of know-how. It should be noted that adopting the explanation of basic action as know-how provided in the previous section would clarify Tuomela's statement that the hand movement is non-intentional. Since the basic action is the pot-making, this is the *\*result\** intended by the agent, and the specific hand movement is not explicated in the intention that brings this *\*result\** about. But the collective aspect is not clear, Tuomela (2002, p. 59) proceeds to clarify this point:

We can assume that every potter participating in this tradition believes that the others are also manufacturing pots in the same special way and believes that this is mutually believed in the group. The pot-making thus is a collective social action in the standard sense. While the embedded special hand movements are pgb's, the collective sanctioning (especially disapproval) of, for instance, norm violation might here consist of individual activities that are also pgb's (expressions of negative feelings) and of the required we-belief.

Here we have a little more information about the collective feature involved in Tuomela's example. The pot-making ability derived from the peculiar hand movement is a social practice of this community. Deviations from the sanctioned procedure might be rebuked, i.e. when someone executes a hand movement that do not bring about the *\*result\** expected by the community, this individual can be punished. However, it is not clear how distinct this case is from Sellars' proposal. For instance, Sellars' main concern was language and language acquisition, the training for someone to become a full-fledged member of the linguistic community, is a central aspect. Sellars mentions the importance of teachers and parents in this training and their common procedure of correcting misuse of language. Therefore, it is hard to see how the social context of Tuomela differs from Sellars' communitarianism.

Tuomela offers other examples, but they also do not seem to show what is the genuine social mark of this collective pattern-governed behavior. Specially, they seem to lack any clear relation to a collective social action. He presents a case of collective inference: we believe that p and we believe that p implies q; therefore, we believe that q. This example follows Sellars' proposal, in the sense that pattern-governed behavior should take a special role in mental actions such as inference. The problem is that this kind of case is restricted to pattern-governed behavior instantiation and provides no clue on how this instance can relate to other actions. Another

example refers to Asch's experiments, where some people are influenced by others. In Asch's cases, the influence occurs in the way people apprehend (or would be report?) an object's dimension.<sup>60</sup> This is another kind of case where it is hard to locate where the action is. Tuomela claims that we can interpret the agents' jointly producing a certain distribution of length judgments as the action being performed. However, it seems to me that this is a case of cognitive bias.

Other cases do not fare better. Tuomela offers collective yawning and body language as other instances of collective pattern-governed behavior. But these examples seem biological or conditioned reflex and, besides conforming to Sellars framework, once again, it is hard to see how they might be instances of collective pattern-governed behavior that bases collective social action. By the examples given so far, I do not think that Tuomela (2002, p. 64) can properly justify his claim that: "collective pattern-governed behaviors form a central element in the 'background' abilities and skills required by collective intentional activities."

I think this is so, because Tuomela (2002, p. 58) is seeking a very particular interest in adopting the pattern-governed behavior concept, one that is not directly related to my concern of how set of bodily movements relate to action:

The general point about my discussion of collective pgb's is that, firstly, they serve to ground collective social action in analogy with how individual pgb's ground mental states and episodes. As collective social actions and the social practices built out of them will be central for my account of conceptuality and social institutions, collective pgb's will also derivatively anchor them in routine patterns of behavior. Accordingly, collective pgb's are central building blocks of the social world, especially in the sense of forming the "routine" ingredients in social practices (viz., repeated collective social actions), customs, and institutional behavior. Such routines generally come about because of repetition and learning.

To sum up, Tuomela is concerned with the creation and maintenance of routine behaviors, a fundamental aspect for his conception of social practice. This way to approach collective action is distinct from the project being followed here. Routine and habits are not similar to basic action as know-how. Habits are relevant for the treatment of actions where there is no deliberation, where there is some sort of conditioning to a settled \*result\*, but they do not figure in the specific discussion of basic action.

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<sup>60</sup> In those experiments a sheet of paper with a line was presented to the subjects. Next, a sheet with three lines of different sizes was presented. The subjects of the experiment should say out loud which of the three lines from the second sheet has the same length of the line presented in the first sheet. Some of the subjects were actors instructed to pick one determinate line (sometimes the right answer, sometimes a wrong one) and they always were requested to respond before the *real* subjects of the experiment.

### 3.4.2 Eliminativism?

In the previous section, I tried to compare the know-how framework with features of collective entities and collective action. Those attempts seem to be unsuccessful. If there is no analogous structure for the know-how in collective cases, it might be that it is impossible for a collective entity to possess know-how. But, if there is no collective know-how, there is no collective basic action, and if there is no collective basic action, there is no collective action. This seem to be the position of Ludwig (2014a, p. 129):

The picture that emerges of collective agency, understood as the subject matter of collective action sentences, is that talk of groups acting, of group agents, and of group actions is a façon de parler. Groups are not per se agents and they do not per se perform actions. Rather, collective action sentences are true when there are multiple agents of a relevant event in relevant ways. The only actions strictly speaking are the actions of individuals, that is, it is only individuals who stand in the agency relation to events. There is nothing objectionable in the vocabulary of group agents and group actions, as long as it is understood as shorthand for there being multiple agents of certain events which stand as primitive relative to further events of which they are all thereby similarly agents. All agency, strictly speaking, is individual agency; all collective action is a matter of there being multiple agents of events, in the first instance of aggregates of individual primitive actions and then of their consequences.

Ludwig's proposal starts with the interesting observation that collective action sentences are ambiguous. He uses the example "We built a boat". The ambiguity in this kind of sentence is that it has a distributive or a collective reading. When I say "We built a boat", I might mean that I and you built a boat together; this is the collective reading. However, I might mean that I built a boat and you also built a (another) boat; this is the distributive reading of this collective action sentence. In order to dispel this ambiguity, Ludwig offers a logical analysis of this kind of sentences. His solution is to make precise the relation of agents to an event. In the distributive reading, the quantifier over members of the group takes wide scope with respect to the event quantifier; therefore, the event is distributed over the individuals. In order to spell out the collective reading, the solution is to represent the event as being brought about by "each of us", and that no other than one of us was an agent involved in this action. The technical details will not bother me here.<sup>61</sup> The important point being that both readings do not appeal for distinctive collective agents. The "each of us" resource should make possible that the agent variable be filled just with individuals as values. On the distributive reading the "each of us" scope over the event, makes the case that every member on "each of us" relates to an event of building a

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<sup>61</sup> Here is the logical analysis. [2d] is the distributive reading with the wide scope on events; [2c] is the collective reading, with the proper relation of every member to the event being brought about:  
 "[2d] [Each  $x \in us$ ] ( $\exists e$ ) [ $\exists t < t^*$ ] (agentB ( $x, e, t$ ) and [only  $y = x$ ] agentB ( $y, e$ ) and building( $e$ ) and of( $e, a$  boat))  
 [2c] ( $\exists e$ ) [Each  $x \in us$ ] [ $\exists t < t^*$ ] (agentB ( $x, e, t$ ) and [only  $y \in us$ ] agentB ( $y, e$ ) and building( $e$ ) and of( $e, a$  boat))"  
 (LUDWIG, 2014a, p. 115).

boat in a distributive fashion. On the collective reading, the event is said to be brought about by the individuals that pertain to “each of us”.

After this linguistic finding, Ludwig examines collective action sentences where the subject is a singular group. When we use singular groups as the agent of actions’ sentences things get a little more difficult. First, it could be the case that these sentences would not have distributive reading. Take the sentence “the chess club met in the library on Friday night” (LUDWIG, 2014a, p.116). This kind of sentence does not permit a distributive reading. Ludwig believes that this is because the verb express an event type that individual members cannot bring about by themselves. In this particular example, it is not possible for an individual member to meet alone. Meeting is a relational verb, that demands more than one individual, and, in this example, it suffices when the agent is a singular group, given that groups are constituted by individuals; therefore, these individuals met each other.

However, the impossibility of distributive reading is not blocked if other verbs are being used. Ludwig (2014a, p. 117) offers another case where it is possible to have both a collective and a distributive reading with a singular group as the agent: “the quartet went home after the concert’ has both a distributive and [a] collective reading: if we know [that] the members of the quartet live together, we give it the collective reading; if we know that they do not, we give it the distributive reading.” The idea is that, if action sentences with singular groups as agents have the same analysis as cases where the agent is a plural term then we will not need to refer to collective agents even in these cases. The “each of us” in the plural term “we” can be adapted to “each member” of a singular group. Given that the “each of us” can make the agent variable in the logical analysis be filled just with individuals as values, this means that a very individualistic reading could be applied to actions’ sentences with plural terms or singular groups as the agents.

This very individualistic analysis of collective action sentences faces a big problem with the fact that collective entities change membership without ceasing to exist. Therefore, if a group does something at a given time, has a change in membership and does other thing later, this individualistic analysis would have a problem, since some individuals brought about the first event and a distinct set of individuals brought about the other. Ludwig (2014a, p. 120) offers as an example a sentence such as: “The Supreme Court ruled in 1896 that segregation is constitutional but in 1954 it reversed itself and ruled that segregation is not constitutional.” The Supreme Court was one in 1896 and another in 1954; however both actions in this sentence are being ascribed to the Supreme Court as if it was the same agent. This kind of case should indicate the need to postulate a legitimate collective agent.

However, Ludwig believes that by indexing the membership of the Supreme Court to a given time can solve the problem. So, instead of “each of us”, groups have “each member”. The change in membership problem suggests that the set of members should be indexed to a given time: “each member (at t)”. With this clarification, it is possible that the logical analysis of the sentence “The Supreme Court ruled in 1896 that segregation is constitutional but in 1954 it reversed itself and ruled that segregation is not constitutional” can pick the members of the Supreme Court in 1896 as the individual agents that brought about the constitutionality of segregation and the members of the Supreme Court in 1954 as the individual agents that brought about the unconstitutionality of segregation.<sup>62</sup>

At first sight, it should seem that this move is ad hoc. However, Ludwig backs up his point by showing that indexing is also relevant for analysis of individual action sentences. He explore examples such as “The woman wearing the tiara was flirting with your husband” and “The man in the gabardine suit is a spy” that also might have two readings that depends on time indexation. The first sentence might refer to a woman wearing a tiara right now, but we could also be making reference to what happened in the party last night. Something similar happens with the other sentence, where we could be talking of someone right in front of us, or about a photograph taken last year that we are looking at right now. These cases show that, in order to pick the right individual, the time of the property of wearing a tiara or a gabardine suit must also be indexed.

However, it is not this individualistic analysis that takes collective agents out of the picture. Actually, even Ludwig (2014a, p. 116) is aware of this:

plural action sentences do not commit us to the existence of group agents, but only to individual agents. This is not to say that we are not committed to the existence of groups. These are not eliminated. The key point is that the argument position in the agency relation is occupied by a variable that takes individuals as values.

Even if the analysis can locate individuals contributing to an event, someone could insist that the proper agent of the target event is a collective agent. The analysis would only show that a collective agent can only perform actions through the action of its members, and the analysis could be failing to pick the target event, it would be picking individual contributions to it.

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<sup>62</sup> The logical analysis of this sentence is as follows:

“ $[\exists t]$  [The X: X is(t) a Supreme Court] ( $\exists e$ ) [ $\exists t' < t^*$  &  $t'$  lies in 1896] [Each  $x \in t'$  X] (agentR( $x, e, t'$ ) and [only  $y \in t'$  X] agentR( $y, e$ ) and ruling( $e$ ) and content( $e, \text{segregation is constitutional}$ )) and [ $\exists t'' < t^*$  &  $t''$  lies in 1954] ( $\exists e'$ ) [Each  $x \in t''$  X] (agentR( $x, e', t''$ ) and [only  $y \in t''$  X] agentR( $y, e'$ ) and reversal( $e', X$ ) and ruling( $e'$ ) and content( $e', \text{segregation is not constitutional}$ ))” (LUDWIG, 2014a, p. 120).

The central feature is that [Each  $x \in t'$  X] is different from [Each  $x \in t''$  X], given that the membership of the collective entity (constituted by the members of X) changed from  $t'$  to  $t''$ . By indexing the set of members relative to a specific time, Ludwig can keep his individualistic analysis, picking only individuals as the agents who bring about the action event being analyzed.

The final blow against a collective agent comes from the ontological position Ludwig (2014a, p. 125) adopt regarding action:

(...) I favor the view that 'action' counts events of which we are primitive agents, on the following grounds. First, we do not treat consequent events described as such as actions. Suppose that I kill someone. The consequent event is his dying. But his dying is not an action of mine. Rather, what I did to cause his death, i.e., what I did that caused his death, is my action. Second, there is no end to the consequences of events of which we are primitive agents. These continue long after we are dead. But we do not continue to perform actions when we no longer exist. We can say that things Napoleon did are still affecting the present long after his death, but not that Napoleon is still doing things. Third, intuitively the time to which an action verb indexes is the time of action. When we ask when Brutus killed Caesar, the answer is when he stabbed him, not when Caesar dies. If Brutus stabbed Caesar on the Ides of March and Caesar dies on March 22nd, we do not say that Brutus killed Caesar on the 22nd. He may have been imprisoned or have died himself in the meantime. Intuitively, the time of Brutus's killing of Caesar is the time of his action, which is the time of his primitive action, the movement of his arm as he stabbed Caesar.

Adopting the idea that *real* action is only primitive action and the plausible idea that collective entities do not maintain the relation of primitive agent with any event, Ludwig concludes that there is no *real* sense of collective agent. He asserts that collective action and collective agent is just a way of speaking, that there are no collective actions, because collective entities cannot be agents. Only individuals can be on a primitive relation to actions, therefore only individual actions exist.

Nevertheless, Ludwig tries to find some other sense to collective action. He offers two possibilities. The first is to speak of a collective being an agent in a derivative sense, which very simply put is the case where an action sentence involving a collective entity is true in the collective reading. This means that we are referring to an event that was brought about by all and only members of the collective entity, that is, they maintain the relevant agency relation to the event. In this sense, we say that a group of manufacturers built a boat because all and only those manufacturers were direct agents of this building (the boat was built by the collection of primitive actions of these individuals).

The second way is to consider a mereological sum as an event. In this case, the mereological sum of all the primitive actions of individual members can compose a collective entity's primitive action in an extended, or secondary sense. This is not properly a primitive action, but is a sum of them. Contrary to the other option, which focuses on a derivative sense of agency about the resulting event, the mereological sum is not derivative.

Adopting this individualistic analysis, Ludwig (2014a, p. 122) have a very particular position on unintentional collective action:

It sometimes seems to be supposed that collective action is always intentional. But this is incorrect. For example, it is undeniable that we human beings are poisoning the environment through what we do and the way we live. This is not something that

any one of us alone could do. But we are not doing it intentionally. It is an unintentional by product of other things that we are doing. Clearly, then, unintentional collective action is possible, and it is easily explained on my account: it is simply a matter of there being multiple agents of an event.

Since the criterion for identifying a collective action is just to find an event that was brought about by more than one agent, regardless of plan, intention, commitment, structure, knowledge, or whatever other element, Ludwig has a very liberal position on collective actions. I think this position is too permissive. Actually, it is permissive in adopting an unrestricted accordion effect (Principle D, see section 2.3.1.3) at one side and being over restrictive when sustaining that the only *real* action is the primitive or basic action on the other.

To sum up, if basic action is an action that an agent can perform directly, and if collective action relies on individual action, it follows that collective agents cannot act directly. The assumption that collective entities could perform direct actions might be more absurd than the infamous spooky *group mind*. Which bodies or whatever other causally efficacious means a collective agent could control directly? The denial that a collective agent can do something directly figures as an important lesson to guide further developments of a theory on collective action. Since there is nothing that a collective agent can perform directly, simply in virtue of intending to do so, the search for an explanation of collective action exclusively concerned with collective intentionality will not provide an adequate account for the phenomena we are investigating. If the explanation only aims at the collective intentionality involved in collective action cases, it will not be able to point out where is the causal efficacy on those cases. And without causation, there is no action.

### 3.4.3 Reductionism

However, eliminativism might not be the answer. For sure, there is a problem: it seems implausible that collective entities can perform actions directly. But, instead of an eliminativist conclusion, we may offer a reductionist one: in cases of collective action, the individual members of a collective entity instantiate the relevant know-how needed to the attainment of the intended *\*result\**. It does not follow from this observation that collective entities are incapable of know-how instantiation, but that this instantiation is dependent on the individual members that constitute the collective entity. This means that the basic behavior repertoire of collective entities is composed of the basic behavior repertoire of their individual members.

This reductionist view is largely defended in the literature: “Whatever a group agent does is done by individual agents” (LIST; PETTIT, 2011, p. 160). Even Epstein (2015, p. 234-

235), who denies the exclusivity of individual elements; recognize individual action as a central feature of collective action:

It is widely believed that once you have fixed the actions of the members of a group, you have thereby fixed the actions of the group. This is a mistake. (...) Not for a moment should we devalue member action. Of course member action is usually a substantial contributor to group action.

And, perhaps closer to what is being proposed here:

If a collective does something X then at least some of its members, say A1 ..... Ak must, in the right circumstances, jointly bring about (or generate) X, viz., they must do something X1 ..... Xk, their parts; and in normal circumstances the performances of these parts serve to generate or 'make up' X. (Strictly speaking, X1 ..... , Xk will be parts of a joint action of A1 ..... Ak which need not be of the type X but which can still be said to generate or bring about a token of X.) The action of the collective is constituted by these members' actions, we may say (TUOMELA, 1989, p. 243).

I should stress here that the reductionist nature of know-how does not preclude a double ascription of a basic action, i.e. the ascription of a basic action to the individual who possess the know-how to perform it and to the collective entity. If the traditional basic action theorists were followed, this suggestion would turn out badly. It seems odd to say that a collective entity was contracting muscles (of many arms!), moving tongues or limbs. But it does not seem unreasonable to say that a collective entity prepared its stock of shoes for sale and has done it by (among other things) lacing ties. Lacing ties is not something that the collective entity can perform directly, it depends on an individual agent to do so, but it does not seem implausible that it can instantiate a case of double ascription. I will back to this topic in section 4.4, where I develop my own account of action and explore more cases where this kind of double ascription is in place.

This section aimed to show that, given the dependence of collective actions on individual actions, basic action as know-how is instantiated in collective actions by the members of this collective that take part in the relevant deed. In other words, know-how (as well as basic action) has a reductionist feature in the collective realm: a collective entity is only capable of instantiating know-how in virtue of the possession of it by one (or more) of its members. And, since we adopted a basic action conception based on know-how, this means that: every basic action performed in a collective action case is executed by one (or more) individual member(s) of the collective entity.

## 4 INTENTION

In this chapter, I will offer a conception of intention and discuss what a *collectivized* notion of it may look like. The main guideline here is a functionalist approach to mental states (section 4.1):

To specify the functional or causal role of a mental state is to specify its typical causes and effects. A typical cause of pain, to use a common example, is tissue damage and a typical effect is groaning or wincing. Being in pain is then to be in whatever state that satisfies the functional role of pain—in whatever state that has the causes and effects characteristic of being in pain. (SCHLOSSER, 2006, p. 119).

Given the functionalist guideline, I aim to present some features of intentions directly related to the role they have in action (section 4.2): (4.2.1) the content of intention, (4.2.2) its role in practical reasoning, (4.2.3) the coordination function, (4.2.4) the executive function, and (4.2.5) the guidance function.<sup>63</sup> In short, intentions are coordinate plans that execute and guide our actions.

After presenting the functional role played by intentions in individual cases, I discuss how to identify these roles in collective action cases (section 4.3). I argue that both executive (4.3.1) and guidance (4.3.2) will inherit the reductionist characteristic presented in the last Chapter, due to the fact that they are intimately related to the production of a bodily output by the triggering of an actional mechanism, that is, the instantiation of the kind of know-how I was interested in the previous section. However, when discussing the coordination function (4.3.3), I will argue against the rationality of an intention expressed by “I intend that we A.” In this point, I will explore the constraints imposed by a belief expressed by “I believe that I will not A.” This particular discussion suggests that the agent intending a collective action must be a collective agent; no individual member of a collective entity can bear the relevant intention whose content is the collective *\*result\**. I will follow List and Pettit (2011) *Theory of Judgment Aggregation* to argue in favor of a distinctive and genuine intention of collective entities (4.3.4). I will also try to provide the link between the collective entity’s intention and the individual’s

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<sup>63</sup> This functionalist approach is often used to argue against the reductionist view of intentions, the view that identifies intentions with a set of desires and beliefs. The functionalist argument is adopted by Bratman (1999a) and Mele (1992), for instance. Both authors contrast the role of intentions with the role of desires and desires coupled with beliefs to show how these alternatives cannot perform executive and coordination features. Take Bratman’s (1999a, p. 34) position: “(...) I believe that in the end such attempts at reduction do not promise to tell us a great deal about how intentions function in the lives of rational agents like us. I think we gain more insight into the kinds of agents we are by putting aside such attempts at reduction and taking seriously the idea that intentions are distinctive states of mind, on a par with desires and beliefs. Intentions are conduct-controlling pro-attitudes, ones which we are disposed to retain without reconsideration, and which play a significant role as inputs into reasoning to yet further intentions. I propose to consider this network of dispositions and functional roles on its own terms, without trying somehow to reduce it to ordinary desires and beliefs.”

intention necessary for members to execute their parts through a special kind of conditional intention.

Finally, after having explored the core concepts of action for a causalist view, namely basic action and intention, I will offer my own account of action (section 4.4). In this account, intentions are necessary conditions for some event to count as an action. This signals a departure from the causalist view in favor of a constitutivist view. Briefly, the strategy I will adopt can be described as a harsher version of the *simple view*,<sup>64</sup> in the sense that not only intentional action must be intended, but action is identical to intentional action. This central feature of the proposal stresses the importance and the place of intention in the nature of action.

#### 4.1 THE FUNCTIONALIST APPROACH

Functionalism is a theory about the nature of mental states. For the purposes of my argumentation here, the functionalist approach should be characterized in opposition to the identity theory. *Identity theory* says that mental states are identical to physical states. For instance, when someone is in pain, there is a specific nervous stimulation (philosophical literature adopts C-fiber as an example) going on in the organism. The contrast made by functionalist theories is that the physical constitution of a mental state is not its distinctive characteristic. Functionalists think that the distinctive characteristic of a mental state is the role they play.

Polger (2016) phrases this main metaphysical assumption with the following slogan: *being as doing*. He contrasts the physical stuff kind, whose essence amounts to its physical composition (like diamonds), with other stuff kind, whose essence is not particularly tied to its

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<sup>64</sup> The *simple view* states that every intentional action is done with the intention to perform that specific action. Perhaps the most accepted view is a weaker one, incompatible with the *simple view*, where in every case of intentional action there is an action intended, but they do not need to be the same. This view is called *single phenomenon view* by Bratman (1984). Very common examples are the action of driving a car or mowing the lawn. For sure, those actions are brought about with an intention that makes explicit reference to the appropriate \*result\* of each action. However, what about the action of “stepping in the gas pedal” or “switching the gear”? For the mowing the lawn case, what about the action of “taking this step while pushing the mower”? The *single phenomenon view* idea is captured by Nadelhoffer’s (2006, p. 566) comment on the mowing the lawn example: “(...) [the agent’s] general intention to mow the lawn may serve as a sort of proxy intention for taking all of the requisite steps for successfully mowing the lawn, steps that are intentionally taken despite the fact that [the agent] did not specifically intend to take each of them individually.” The answer I have for the *single phenomenon view* is the concept of basic action adopted in the last Chapter. The kind of action that seems to contradict the *simple view* is those bodily movements that the agent executes to bring about the particular intended \*result\* of her basic action, that is, the explicitly referred action does not need further reasoning about a mean-action to be realized, given that it is an action that the agent can perform directly. Since those bodily movements do not relate appropriately with the intention, since they do not figure in the content of the intention, they are not intentional actions. Another kind of counter-example is constructed by means of an action’s side-effects. This other kind of counter-example will be discussed in section 4.4.1.

physical composition. The most recognizable examples of this latter category are artifacts. Things like locks, mouse traps, sculptures, etc., are essentially constituted by their relations to other things and by what they do, rather than by the specific material of which they are composed. It does not matter if a sculpture of Socrates is made of bronze, wood, stone, glass or clay. If you have different versions of Socrates sculptures made from different materials, you still have the same kind of stuff: Socrates sculptures.

Functionalists' central claim is not that a stuff kind can have a range of different compositions; Polger (2016) offers an example that emphasizes the fundamental functional aspect of stuff whose essence is not particularly tied to its physical composition:

Mouse traps are devices for catching or killing mice. Mouse traps can be made of most any material, and perhaps indefinitely or infinitely many designs could be employed. The most familiar sort involves a wooden platform and a metal strike bar that is driven by a coiled metal spring and can be released by a trigger. But there are mouse traps designed with adhesives, boxes, poisons, and so on. All that matters to something's being a mouse trap, at the end of the day, is that it is capable of catching or killing mice.

After this example, Polger contrasts these characteristics of a mouse trap with a diamond, a stuff kind that essentially depends on its physical composition. Contrary to the mouse trap, what defines a diamond is its specific molecular structure, namely, carbon atoms organized in diamond cubic crystal structure. If other objects have diamond's characteristics, they would not be considered a diamond if they do not have this specific organization of carbon atoms. The most important commercial competitor of diamond is the cubic zirconia, an object constituted by Zirconium and Oxygen (zirconium dioxide ( $ZrO_2$ ) molecule, more precisely) that shares many features with diamonds. It is approximately as hard and clear as a diamond but it does not have any carbon atom in its structure. Even if it could perform every function a diamond is capable of (cutting glass, jewelry, be assembled in lasers and computers), it still would not be a diamond.

Functionalists claim that the nature of mental states is more similar to artifacts than diamonds; their functions are more important than their composition. The rise of 20<sup>th</sup> century functionalism<sup>65</sup> began with Putnam's (1967) analogy between human brains and computers. This analogy is intended to show that some things could be constituted of different materials (silicon as in computers' circuits compared to our carbon and oxygen based body) and have the same behavior. More compatible with a computer analogy, functionalists explored the fact that

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<sup>65</sup> Levin (2013) mentions Aristotle's theory of human soul (form) and Hobbes' conception of the mind as a calculating machine (and a plausible equivalence between human beings and automaton) as early precursors of theories that posit functions and roles as more adequate features than internal constitution to identify the nature of certain things.

both a human brain and a computer when in front of propositions such as “p” and “p implies q” (input), tend to obtain “q” (output). The upshot for functionalists is that the response of a system facing those propositions does not depend on what is its material composition.

The same should apply to mental states. Along functionalist’s lines, pain could be defined as: “a state that tends to be caused by bodily injury, to produce the belief that something is wrong with the body and the desire to be out of that state, to produce anxiety, and, in the absence of any stronger, conflicting desires, to cause wincing or moaning” (LEVIN, 2013). The whole definition of pain is made with references to its causes and its effects. Pain is a response to some kind of injury or flaw in someone’s body that tend to produce some sort of behavior like wincing or moaning or running away from what the organism in pain believes is the cause of it (fire, poison, etc.). Putnam (1967) argues that this sort of functional characteristic is the core aspect of pain, and it does not matter how it might be actualized physically. It can be realized in a human brain, in other mammalian brain, in a reptilian brain, in a mollusk’s brain or in some alien brain (considering that the alien is capable of having the mental state of pain). The diversity of physical makeup that could actualize a mental state like pain is evidence for its multiple realizability.<sup>66</sup> Multiple realizability seems to be the stronger argument against the identity thesis. A theory that fixates a rigid identity between a type of mental state (like pain) and a particular type of neural state (C-fiber stimulation) seems too *(species)-chauvinistic* (BLOCK, 1980), in the sense that it will limit the array of ascriptions of that given mental state.

Polger (2016) presents two other arguments functionalists adopt to show that their theory fares better than the identity theory. Polger calls them (i) the *optimistic argument* and (ii) the *pessimistic argument*.

The optimistic argument draws heavily on the analogy between brains and computers. The possibility of an artificial intelligence, that is, a silicon hardware capable of performing operations characteristic of rational agents, seems to support a theory like functionalism and falsify a theory that sustains the identity between mental and neural (physical) states. If a robot could reason, learn and plan, then this scenario would be an example of mental states such as beliefs being instantiated without the specific neural state demanded by the identity thesis’ advocate.

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<sup>66</sup> It should be noted that functionalism is neutral between materialism and dualism. Functionalism just claims that the composition of mental states should not figure as a core feature for determining their nature, but they are composed of something (like mouse traps can be composed of a large array of different elements), and this stuff might follow materialist or dualist theories. Nevertheless, functionalists tend to adopt a materialist position in this debate.

The pessimistic argument claims that the identity theory entails skepticism of other minds. Since a mental state such as pain must be identical to a specific neural state, no ordinary observer could ascribe pain to someone who says “I am in pain” or is wincing or moaning, etc., because this ordinary observer would not have access to the neural state of the person (supposedly) in pain. The best we can normally do is: “find out how the systems function. And if functionalism is correct, that is all we need to know in order to have knowledge of other minds” (POLGER, 2016).

Polger points out, however, that both arguments seem problematic. The optimistic argument begs the question, since it presupposes that artificial intelligence is possible. This claim would be contested by the defender of the identity thesis, since he would deny that a robot could have the same mental states a human being has without having the same brain makeup. The pessimistic argument seems to adopt very demanding requirements for our knowledge of other’s minds. It seems to demand some sort of infallibility often dismissed in other knowledge ascriptions. The defender of the identity thesis could insist that the evidence listed by the functionalist can be taken as good reasons to infer that the subject saying “I am in pain”, wincing or moaning is undergoing the specific neural state identical to the mental state of pain, with no need to crack open the subject’s head in order to witness this specific neural state directly.

Besides being the most defended view nowadays (POLGER, 2016), the functionalist theory had been attacked. I will present three arguments against functionalism: (i) the input/output problem, (ii) the qualia problem, and (iii) the causation problem.

Searle’s (1980) *Chinese room* counter-example is offered in order to cast doubt on the analogy between human brains and computers. Searle’s thought experiment presents us a room with a person, some books, paper and pencil. Every once in a while, papers with questions written in Chinese are sent to the room, and the person inside it can answer those questions following instructions to be found in the books available in the room. This person does not know Chinese and cannot even recognize the language in which the questions and the books are written. Even if the person (or the room, the whole system) can provide answers to the questions issued, it is false that the person knows Chinese (and Searle thinks it would be odd to say that the room, as a whole, understands Chinese and has beliefs about the questions being issued).

The upshot is that the analogy between humans and computers fails, since this counter-example seems to point out that there is a distinctive difference between the operations of the room and someone that really knows how to speak Chinese. Even if the room and the Chinese-

speaking person behave the same when confronted with those questions (both would reply with the same answers) something seems to still be missing.

The functionalist could insist that the system is operating accordingly. The supposition that the same answers would be provided in both scenarios indicates that the functionalist's criterion was met. In order to resist this line of defense, a more detailed specification of what is going on in the room is needed. Specifically, a precise conclusion for the case depends on how the instructions work. If the books contain a large collection of all possible questions and their suitable answers, the room does not seem to undergo the same tasks a Chinese speaker does. This opens up a problem for the case but also for a functionalist theory, since it shows that:

Functionalism must be specified in terms of functions (inputs and outputs) that are sufficiently general to allow for multiple realization of mental states, but sufficiently specific to avoid attributing mental states to just about everything. This is tricky. A version of functionalism that is too specific will rule out certain genuinely psychological systems, and thereby prove to be overly "chauvinistic." A version of functionalism that is too general will attribute mental states to all sorts of things that one doesn't ordinarily take to have them, and thereby prove to be overly "liberal" (POLGER, 2016).

Another related difficulty for the theory is the qualia problem. It is hard to grasp if the Chinese Room understands Chinese, even if it presumably exhibits the same outcomes a Chinese speaker would display. However, given that it does not seem that the Chinese Room undergoes tasks similar to the Chinese speaker in order to display the same outcome, it is very difficult to endow that the Chinese Room has conscience or qualitative experience of reading Chinese, answering questions and whatever other activities we can concede it is performing. Functionalists should tell us why consciousness would be relevant to the performance of such tasks.<sup>67</sup> Whatever answer they may have for this problem, it seems that the difficulty here is the indication that input/output definitions are hiding something essential for the nature of mental states, they are insufficient definitions for this stuff kind.

The causation problem is more important for the specific concerns of this work. This particular problem is derived from the multiple realizability claim. Simply put, multiple realizability shows that the same thing could be obtained from different sets of components. This idea establishes an ontological dependence of this thing being obtained on its components. Mouse traps depend on wood and metal or boxes and poison or wood and adhesives, etc. Mental states depend on hydrocarbon or silicon. This sort of dependency denotes a two-level structure where higher-level entities (like mouse traps and mental states) depend on lower-level entities

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<sup>67</sup> A similar pressure could be posed to introspection. Why should a mental state (being in pain) be related to another mental state about the actualization of the first one (a belief that "I am in pain")? See Levin (2013) for an overview of functionalists' answers and their problems.

(wood and metal or boxes and poison etc.; hydrocarbon or silicon). This kind of ontological structure makes us question where to locate some properties. Particularly in the case of causation, the causal exclusion problem points to the possibility that the higher-level entity would be causally irrelevant, since all there is to know about causation of mental states could be identified in the lower-level entities that compose them. Therefore, adoption of functionalism by virtue of the multiple realizability argument might entail some sort of epiphenomenalism, where mental states are completely dependent on the lower-level entities (physical stuff) that constitute them and have no causal efficacy.

This relation between multiple realizability and causation might be clarified with the distinction between *role* and *realizer functionalism*. Let us get back to the (shorter) functional definition of pain: pain is a state that tends to be caused by injuries and tend to cause distress. The question now is whether the mental state of pain is the role (the causes and consequences depicted in the definition) or is something that realizes that particular role. Role functionalism says that pain is a higher-level property, the property of being caused by injuries and of causing distress. Realizer functionalism is concerned with what is occupying or playing the role. Here the identity theorist could jump in and suggest that what is occupying the role in the case of a human being in pain is the stimulation of C-fibers. Both versions have problems to face.

The specific problem of causation would affect the role functionalist. If pain is the role of having certain causes and producing certain consequences, it seems that we can identify something doing the job:

If I stub my toe and wince, we believe that my toe stubbing causes my pain, which in turn causes my wincing. But, (...), if pain is realized in me by some neural event-type, then insofar as there are purely physical law-like generalizations linking events of that type with wincings, one can give a complete causal explanation of my wincing by citing the occurrence of that neural event (and the properties by virtue of which it figures in those laws). And thus it seems that the higher-level role properties of that event are causally irrelevant (LEVIN, 2013).

Once the realizer version is already interested in the lower-level properties that occupy the role, they are already addressing all the relevant elements that would figure in the causal explanation; therefore, they could avoid this specific problem. However, this alternative also has some costs. The main cost would be to threaten multiply realizability. If realizer functionalism's definition is concerned with the exact lower-level capable of filling the role (higher-level), then they would settle that the pain would just be C-fiber stimulation, since this is the lower-level that fills the role in human beings. Therefore, realizer functionalism seems to fall in one of the central problems for the *identity theory*, that is, being over-chauvinistic.

I do not aim to answer these difficulties here. The important point for the present work is the general functionalist claim that mental states are the things they are due to the role they play rather than to the stuff from which they are made. This is very important for the present work, because it opens up the possibility to argue in favor of collective intentionality. It is hard to determine what could compose a collective belief or intention, but it seems that collective entities behave like things that possess mental states; that is, they behave following roles similar to what a functionalist would define beliefs, intentions, desires, etc.

## 4.2 FEATURES OF INTENTIONS

Given the functionalist approach, intentions might be defined by means of what they do. This section will present aspects and functions of intentions. Some of their functions are only understood given some of intentions' characteristic features. I begin by arguing that the content of intentions are plans (4.2.1). Then, I address how plans are made by means of practical reasoning (4.2.2). With this presentation of the plan-like feature of intentions, I will start to cover the specific functions an intention plays in an agent reasoning and in her actions. First, I discuss the coordination function (4.2.3), which amounts to a series of dispositions to reason. More precisely, coordination are the rationality constraints that arises from the adoption of an intention, i.e. the compromise to execute an action-plan. These constraints affects the whole mental life of the agent, demanding consistency among her other intentions and between her intentions and beliefs. Then, I will return to the role intentions play in bringing about \*results\*, which was discussed in the previous Chapter. I will briefly present this executive feature of intention (4.2.4), since it has been already detailed in the discussion on basic action. Finally, there is the guidance function (4.2.5). Narrowly tied to the plan-like feature of intention, guidance is the function an intention plays in order to the agent follows the action-plan along its execution.

### 4.2.1 The Content of Intentions

The representational content of an intention is a plan: "Intentions have representational content, as is indicated by the close link between intentions and plans in dictionary definitions of 'intention'. The content of an intention is at least partially constituted by a representation of what is intended" (MELE, 1992, p. 142). The plan-like feature of intention's content is a key

element in order to intentions function the way they do. This essential feature determines other roles intentions play, like coordination and guidance.

The literature on intention-as-plans stresses an important distinction between following a plan and merely acting in accordance with a plan. Someone might have a plan for A-ing, but this plan might not take part on the A-ing-like behavior that the individual is manifesting, since the behavior fitting the plan may be purely coincidental. An intention is just functioning properly in an action instantiation if the plan has some causal efficacy over one's action instantiation. The intention must operate its executive function based on the plan. The agent who successfully executes her intentions are guided by the intention's content, in other words, by the plan.

The distinction between following a plan and merely acting in accordance with a plan seems reasonable because of the possibility of an agent possessing a *plan for A* that is not a *plan to A*, where only the second is properly considered the content of an intention. Bratman (1999a, p. 46) contrasts these two meanings:

I might have only a kind of recipe; that is, I might know a procedure for achieving a certain end. In this sense I can have a plan for roasting lamb whether or not I actually intend to roast lamb. On the other hand, for me to have a plan to roast lamb requires that I plan to roast it. It is the second kind of case that I intend when I speak of plans. Plans, as I shall understand them, are mental states involving an appropriate sort of commitment to action: I have a plan to A only if it is true of me that I plan to A.

Possessing a plan to A is a necessary condition to intend to A, while having a plan for A does not entail an intention to A. Having a plan for A is just a theoretical way to refer to plans, something like an abstract structure. As Bratman describes, it is just a recipe, a procedure, an algorithm, i.e. a general guide for a particular task (baking a cake, installing a software, the processing of a search engine request). Having a plan for A does not entail that the subject possessing the plan will execute the plan. By contrast, having a plan to A is a different attitude of the subject towards the plan. When someone has a plan to A, she takes the stance of a proper agent. Having a plan to A establishes a sort of commitment to the execution of the plan.

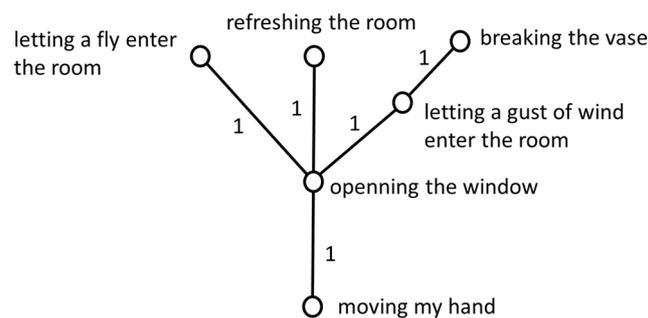
The plan-like feature of intention is rather familiar in the literature. Besides Mele (1992), Enç (2003), and Bratman (1999a), Goldman's (1970) definition of intentional action (as presented in section 2.2.4) resembles this strategy of identifying the content of intentions with plans. It should be stressed that Goldman's account highlights the role of wants, which is an attitude that settles the desired goal and triggers a practical reasoning to the formation of an effective plan aimed at the achievement of this desired goal. Goldman's proposal strives for cohering with a reductionist nature of intention. An intention, in this account, amounts to a want (or desire, which is the term commonly employed in the *causal action theory* literature;

Goldman uses them interchangeably) and a set of beliefs the agent has about effective means to satisfy this want. Specifically, Goldman stresses that these beliefs are level-generation beliefs, where the agent identifies which actions she might perform to generate the desired outcome; that is, which basic action should be performed that would bring about the desired outcome by means of level-generation.

As noted by Bratman (1999a), the reductionist way to approach intentions is rooted in the methodological priority granted to explaining *intentional action*. Intentional action is an action adequately related to the set of beliefs and desires of the agent. Goldman's approach is very elucidating in this aspect. Any action not figuring in the agent's plan will not be an intentional action. If I want to refresh my room by opening the window, the unforeseen consequences of a wind blow breaking a vase of flowers or an insect coming inside my room cannot be intentional actions. And even if I could foresee these consequences, but act anyway, they would not figure as intentional actions either. In this latter case, those actions would be present in my action plan; therefore, I would foresee those consequences as being level-generated by some actions I have performed. But they would not be appropriately related to my want. My desire is to freshen my room and those actions are not means to attain this want, they are merely side effects. Since they are not appropriately related to my want, they do not stand in relation of level-generation with it, they should not be considered intentional actions.

A figure can highlight the path of level-generation and stresses the lack of this appropriate relation of level-generation between my want and these side effects:

Figure 9 – Unintentionality of Generated Side Effects



Source: Author.

Figure 9 shows that side effects such as “letting a fly enter the room” and “breaking the vase” are not related to the action's goal, “refreshing the room”. According to Goldman's account, those side effects cannot be intended even if they are foreseeable. Since they do not contribute to the generation of the *want*, they are not properly present in the plan to attain it. Goldman requires that an intentional action must either generate or be at the same level of the

want. Figure 9 also shows that side effects are level indeterminate in relation to “refreshing the room”; therefore, they do not satisfy this requirement and are not intentional actions, even if they were foreseen. On section 4.4, I will argue in favor of a more comprehensive conception of plan, where these foreseeable side effects should also count as components of the plan and, therefore, can be events that qualify as intentional actions.

Going back to the characterization of the general features of a plan, it should be noted that plans are usually partial or incomplete. We do not create full plans at once: plans are typically partial, usually they are incomplete. Our limited resources of reasoning demand that some parts of the plan be completed along the way; this is a strategy to distribute our deliberation process through time. It would be impossible to act solely based on complete plans; it would demand a lot of time and effort that would prevent anyone to act. Besides our limitations to process all the information needed to formulate complete plans, some aspects of the world change with time. Some of these changes render previous plans useless: “highly detailed plans about the far future will often be of little use and not worth the bother” (BRATMAN, 1999a, p. 47). As the time comes, reasoning will help the agent fill her plan to act. Take Mele’s (1992, p. 178) example:

Wilma, standing at a bus stop, sees a baby leaning out of a fourth-story window and feels certain that he will fall. We may suppose that Wilma proximally intends to save the baby and that she immediately begins running toward him with that intention, though her plan for saving the baby is not yet fully determinate. As Wilma runs, the details fall into place: she must make a diving catch. Here, Wilma’s acquiring a proximal intention to save the baby does settle in her mind what she will do, namely, save the baby, or at least try. But there was a time, however brief, during which she was settled upon saving the child without yet being settled upon the precise manner in which she would save him.

In the next section, I will discuss how plans are made. Agents do not create full plans at once; planning might take some time. This means that people frequently have incomplete plans to A, like Wilma, who was settled upon saving the baby, but had not yet decided the means she would deploy to do it. Therefore, the next section will overview how an agent compose her plan’s details by the process of practical reasoning.

#### **4.2.2 The Place of Intention in Practical Reasoning**

Intentions take a crucial part in practical reasoning. They are present in the beginning:

I will frequently reason from such a prior intention to further intentions. I will frequently reason from intended end to intended means or preliminary steps: as when I reason from my intention to go to Tanner to intentions concerning how to get there. And I will frequently reason from more general to more specific intentions: as when I reason from an intention to take a bus to Tanner, and my reflections on the bus schedule, to an intention to take a particular bus. Further, my prior intention to go to

Tanner this afternoon will constrain the other intentions I form for the day, since I will seek to make my intentions consistent with one another and with my beliefs (BRATMAN, 1999a, p. 30).

And at the end of the process:

(...) intention is an appropriate terminator of practical reasoning precisely because in forming or acquiring an intention one becomes settled upon a course of action. Practical reasoning is aimed at action. And if all goes well, one will do what one has settled upon doing on the basis of one's practical reasoning (MELE, 1992, p. 146).

As shall be clear, practical reasoning is the process of plan formation. Bratman's terminology in the above quotation is rather confusing, since every part of the plan is considered an intention. This seems inaccurate. The whole plan is the content of the intention, as Mele passage suggests. However, the important feature of Bratman's description is its focuses on the triggering of the practical reasoning process. What he calls *prior intention* seems very similar to Goldman's *wants*. This initial step is a rather crucial one. It defines a goal to be sought by the agent. This is the core \*result\* aimed by the practical reasoning.

However, determining this important element of the plan just triggers the practical reasoning, thus evidencing the inefficacy of a plan that just fixes the goal, such as Goldman's *want*. One exception would be if I just had the goal of raising my arm or, denying the restriction of basic action solely to bodily movements following our previous discussion, *wave hello* to my friend. It seems that there is no need for a practical reasoning in this case; my plan is complete if what I intend to do is something that I can perform directly. This intention already triggers the appropriate actional mechanisms and brings about the desired outcome. However, the whole discussion on basic action is grounded in the idea that we usually have to perform complex actions, that is, we aim at \*results\* that could not be brought about directly. When this is the case, we need to figure out efficient means to bring about the desired \*result\*. The practical reasoning is the way we can form an efficient action-plan and identify which action we can perform directly that could bring about the goal, the purpose, the element that triggered the whole process.

In order to give a detailed account of this whole process of practical reasoning, I will follow Enç's (2003) characterization of practical reasoning as deliberation. In his account, this process is responsible for the formation of the intention (plan to A) when concluded.<sup>68</sup> Enç

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<sup>68</sup> This is far from a consensus in the theory of action. Bratman (1999a, p. 36) agrees with Enç, since his account also gives a distinctive role to deliberation: "Intentions are distinctive states of mind, states that play distinctive causal roles in the connection between deliberation and action". But Mele (1992, p. 146) is particularly against the constrain on intention's production or acquisition exclusively by deliberation: "In deciding to A, one forms an intention to A. But some intentions are nonactionally acquired." Schlosser (2006) also expresses disagreement with Enç's account, sustaining that Enç provides just a sufficient criterion for intentional action with his deliberation proposal; it lacks an argument for the necessity of deliberation.

identifies six steps of the deliberation process: “(i) circumstances, (ii) available relevant basic acts, (iii) a goal (or a set of competing goals), (iv) instrumental beliefs, (v) the computed consequences of the basic acts, and (vi) the evaluation” (ENÇ, 2003, p. 156).

In this schema, a deliberation should take into account the circumstances the agent are in. Particularly in the example to be explored below, there is an environmental invitation, by the form of a state of affairs that demands some kind of answer by the agent. Enç gives a simple example of a phone ringing while the agent is sitting in her armchair reading a book by the fire. Besides this environmental solicitation (the phone ringing), the agent might have a repertoire of basic act types; she might know how to pick up the phone, she obviously knows how to read a book, etc. And, concluding the initial conditions, the agent must have some objective, goal, object that she desires. In the phone ringing case, Enç provides an agent who is willing to talk to her doctor but does not want to disturb her comfortable situation by the fire reading a book.

Given those three elements, the agent is capable of formulating alternative plans, various alternative courses of action. Given the state of affairs present in the specific situation, the agent’s goals and her repertoire of basic acts, she is capable of establishing means (basic acts that, given the circumstances tend) to achieve her goals. In the phone example, the agent has two courses of action: (i) doing nothing and remaining comfortable, and (ii) performing a set of actions in order to talk to the caller (the agent might need to (1) get up, (2) walk to the phone, and (3) pick up the phone. Plausibly enough, the agent knows how to do this set of actions).

In the fifth step, Enç proposes that the deliberation process has a moment of running a series of *what-if* scenarios. This computation shall present consequences of each alternative course of action. Here the agent employs her empirical beliefs to identify many side effects of each course of action. Those side effects can have positive, negative or neutral results for the agent, the environment, other people, etc. In his example, Enç (2003, p. 156) focuses only on immediate consequences for the agent:

I think that if I get up and answer the phone, it is more likely than not that I will have responded to a phone solicitation and disturbed my comfort for nothing, but I might talk to my doctor. If I do nothing, I will be comfortable, but there is a chance that I will not get to talk to my doctor until tomorrow.

The final stage of deliberation is evaluation. Given the computation of all consequences, the agent can project each *what-if* scenario<sup>69</sup> and might arrive at a result value for each one in

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<sup>69</sup> Enç (2003, p. 159) departs from a standard decision theory where there is the presupposition of an ideally rational agent. The agent performing a deliberation does not need to take into account every possible course of action or that every foreseeable consequence is evaluated: “So I am willing to admit that, in the simplest case where the only alternatives considered are merely doing something and not doing it, if some of the consequences of each alternative are taken into account and the Evaluator identifies a preference as existing between these two sets of consequences, then the agent is acting as a rational agent—albeit perhaps not a very wise or an effective one.”

accordance with her preferences. Then, she<sup>70</sup> just compares the result value of each one and picks the course of action with the best outcome. In the example we are following, the preferences of the agent in the phone situation amounts to the decision that: “Disturbing my comfort for a probable phone solicitation does not seem nearly as bad as missing the call from my doctor” (ENÇ, 2003, p. 156).<sup>71</sup>

As the deliberation process described above shows, practical reasoning is the way an agent come to have an efficient plan to A. The main trigger of this process is the decision to perform a specific action and become settled upon A-ing, which incorporates a series of dispositions essential to practical reasoning, such as: “regard the question whether to A as closed (if only tentatively and temporarily), the disposition to coordinate present and future plans with our A-ing, and the disposition to reason about means to A-ing (if necessary)” (MELE, 1992, p. 159). After that the triggering, the core process of practical reasoning is taking into account instrumental beliefs and preferences to the construction of the whole plan by identifying efficient means to attain the goal and selecting the most desirable outcomes given the foreseeable consequences.

### 4.2.3 Coordination Function

As Bratman (1999a, p. 49) states, coordination is a matter of consistency constraint:

To coordinate my activities over time a plan should be, other things equal, internally consistent. Roughly, it should be possible for my entire plan to be successfully executed. Further, a good coordinating plan is a plan for the world I find myself in. So, assuming my beliefs are consistent, such a plan should be consistent with my beliefs, other things equal. Roughly, it should be possible for my entire plan to be successfully executed given that my beliefs are true. This is a demand that my plans be strongly consistent, relative to my beliefs.

Coordination is a matter of consistency. When we talk about intentions, there are two kinds of conflict we need to avoid: intentions inconsistent with other intentions, and intentions inconsistent with beliefs. Bratman (1999a) emphasizes the reasoning-centered dimension of intentions. This is one of the main features that allows him to deny the reductionist view of

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<sup>70</sup> Enç’s description of the process is much more refined. He must deny that the agent is doing something along the whole process of deliberation, since there would be another action and it would open a regress. In his explanation of the whole process as essentially causal, there would be a moment where the *Evaluator* would receive the outcomes generated by the *what-if* scenarios, and would compute a rank of those outcomes using an inferential process involving other beliefs and preferences. Then, the higher outcome would be selected to be carried out. All this process occurs quite automatically, without the need of further actions of the agent.

<sup>71</sup> The two last steps are very important for Enç, since those are the proper stages where he is able to mesh a causal account with a non-determinist account. This is not my concern in the present work, so I will not emphasize this aspect here.

intention as belief/desire pair. Bratman stresses the stability or inertia that is characteristic of intentions. Since we are beings with limited resources, we cannot deliberate at every given moment. Intentions usually are settled, that is, they tend to resist reconsideration. Once you make up your mind about an issue, having dinner out tomorrow evening, for instance, you will not be reconsidering this decision. Of course, some huge perturbation might occur; the disposition to resist reconsideration does not mean that someone is closed for any review in her position. My parents might invite me to dinner tomorrow, for instance, or all the restaurants might be closed due to a holiday. Stability just means that if everything remains roughly the same I will not revise my intention.

This characteristic is very important, since I might coordinate other plans with this one; the plan to have dinner out tomorrow might be relevant to constraint other intentions. I will not plan to buy salad today, since I am planning not to cook dinner tomorrow. This shows the central role of being settled. Being settled is a disposition to retain this intention without reconsideration, and a disposition to reason from this retained intention to yet further intentions, and to constrain other intentions in light of this intention: “Intentions are the building blocks of larger plans. (...) once I come to intend to A, my intention becomes part of my web of intentions and plans, a web subject to the plan-type demands of consistency and coherence” (BRATMAN, 1999a, p. 51).

Besides intention constraint, there is belief constraint. Since the plan might be apt in the world the agent is situated, beliefs about how things work, where things are located, the available resources for me, and about my own abilities are all important ingredients for a plan elaboration. One important kind of belief is means-end belief. I will be incoherent if I intend to do A, believe that “in order to do A I already should have decided about the means to do A” (A is not basic) and perceive that I did not yet decided about which means I will employ to do A.<sup>72</sup> This characteristic feature of means-end relation is used by Bratman (1981) to defend the view that an intention to do A provides additional reasons to do the means required by A. Arguing in favor of this view, Bratman utilizes an example where the intention provides a practical reason (to the mean) in addition to desiderative reasons (to the end):

Suppose I must choose between law school and graduate school in philosophy. I see my desiderative reasons for each option as having roughly equal weight or - as is more

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<sup>72</sup> Actually, Bratman states that means-end incoherence might be present in someone’s mental life even if she lacks the belief that “in order to do A I already should have decided about the means to do A”. The form of incoherence prompted by this kind of belief amounts to the inconsistency between intentions and beliefs that I am emphasizing. However, Bratman (1981, p. 260) points out that means-end incoherence might be a property of a plan even when this kind of belief is not present in someone’s mind: “(...) if I fail to notice that I have reached no such decision my plans-cum-beliefs may well be consistent. Still, they will be means-end incoherent. I do not get off the hook of means-end incoherence just by not noting the lacuna in my plans.”

commonly the case - I am unable to reach a meaningful assessment of how my desiderative reasons weigh. Faced with the need to settle the matter, I form an intention to go to law school. Having formed this intention I now have a reason for opting for some means to going to law school, a reason I did not have before. I now have sufficient reason to opt for some means to going to law school rather than some means to going to graduate school, whereas before this was not so (BRATMAN, 1981, p. 253).

What is important here is the way Bratman argues against the reductive view on intention (the idea that intentions are just a set of beliefs and desires) by locating this reason-giving force of intentions. Given the fact that there is some additional reason going on in cases where means-end reasoning is in place, that is, settling to do A will provide reason to do the means I think necessary to attain A, Bratman notes that reductionist account will fail to locate the additional reason to the mean.

Bratman (1981) uses an example to address this problem: Suppose that someone's desiderative reasons for meeting Susan are stronger than her conflicting desiderative reasons not to do so and that this agent believes that she will (probably) meet Susan. Here we would have a standard account of reductive intention, where the intention is not a distinctive mental state of the agent, but amounts to this complex of desires and beliefs. If there is no other mental state, how can the agent have an additional reason to take the bus to Times Square if this is an action needed to attain the desired goal of meeting Susan? Bratman thinks that the only way to do so would be to counting the desire to meet Susan as twice a reason: (i) when the agent contrasts it with her conflicting desiderative reasons, and (ii) as a part of a desiderative reason to take the bus to Times Square.

Another way to locate the additional reason could be provided by the belief that she will probably meet Susan. However, this other option also seems to fail. Bratman notes that this belief coupled with the belief that she might meet Susan by means of taking the bus to Times Square would only give a theoretical reason for the belief that she will take the bus to Times Square. Bratman notes that a theoretical reason is quite different from a practical reason. The theoretical reason supports a belief that she will take the bus to Times Square, while a practical reason should support the intention to take the bus to Times Square.

Bratman offers another example that aims to clarify this distinction. Suppose that I am a Russian agent who has defected to the United States and Ivar has been sent to take me back to Russia. My former contacts, therefore reliable sources, warn me that I can expect to meet with Ivar at Times Square. I only envisage that this will happen if someone kidnaps me and give me a post-hypnotic suggestion to take the bus to Times Square. My belief that I will meet Ivar only gives me a theoretical reason to believe that I will take the bus to Times Square (given

my other belief about the procedure usually employed by the secret agency to make someone be at a given place); however it does not give me a reason to intend to take the bus to Times Square.

Bratman's (1981, p. 256) point is to suggest: "that we take seriously the idea that intentions are psychological elements that are distinct from desires and beliefs, and that can themselves generate reasons for and against further intention." I am more interested in the precise element that makes it the case. The fact that intentions seem to give reasons for action in schemas of instrumental rationality, given the consideration of suitable means to achieve an end, contrasted with the fact that other mental states do not give these reasons.

Another kind of belief has rendered a lot of discussion in the literature. There seems to be a puzzle around the way the belief that "I will A" relates to an agent's intention to A. This is reminiscent of the belief-desire reductionist view of intention. The belief that "I will A" could fulfill a motivational requirement. Suppose that an agent desires D and believes that "doing A is a mean of getting D". Adding the belief that "I will A" might be enough to initiate an action towards the attainment of D. Many discussions about this have occurred in the past few decades and many philosophers dropped the belief-desire model because these mental states do not seem to play the role intentions have in cases of action. In this particular case, a belief that "I will A" does not seem to motivate an agent.<sup>73</sup>

This particular version of the belief an agent has about her own action is quite easy to drop. It is very common on our daily lives to perform intentional action without this belief. It is quite frequent to engage in actions when we are not sure if we will succeed. Some skepticism about the outcome of our actions do not prevent us to act. When we try to do things, and achieve the intended goal, we are not certain about the outcome of our endeavor. But, even if the strong confident belief that "I will A" is quite easily dropped, there is a weaker version that seems to be incompatible with intention. Enç (2003, p. 190) presents the weak version this way: "An agent intends to do A only if she does not believe that she will not do A."

Mele (1992) tries to deny the constraint that this weaker version seems to impose over the formation of an intention to A. Mele does not see any essential role that the presence or absence of a belief concerning the success or failure of an action may have on the coordination feature of intentions. He says that:

(...) the absence of a belief that one (probably) will not A is not functionally required. If I\* [S intends to A only if S does not believe (at the pertinent time) that he (probably) will not A] is endorsed as a constraint on intentions to A, it will be endorsed as a

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<sup>73</sup> Setting aside another problematic discussion on the necessity of motivation to act. See Mele (1992) for more on this topic.

concession to ordinary usage, considered as reflective of the commonsense concept of intention (MELE, 1992, p. 150).

On the other hand, Mele recognizes a potential role for this kind of belief. This is exactly the explanation he gives for the misleading influence that this kind of belief imposes on coordination:

There is nothing about coordinative capacity itself that calls for these belief constraints on intention. Coordination may often be facilitated by beliefs of the sort at issue and hampered by a belief that one will probably fail to execute a plan. Occasionally, coordination may even be rendered (psychologically) possible by a belief of the former kind, and impossible by a belief of the latter variety. But none of this implies that intention's having the capacity to coordinate behavior requires that 1 [S intends to A only if S believes that he (probably) will A] or 1\* [S intends to A only if S does not believe (at the pertinent time) that he (probably) will not A] be true (MELE, 1992, p. 138).

In order to strength his position, Mele (1992, p. 131) offers some cases where the agent has the relevant belief and there is no constraint to her performance or in our ascription of intentionality to her action:

When Connie approaches the foul line with the intention of sinking a foul shot, she believes both that she has an 85-percent success rate on foul shots and that she will probably sink this shot. As she begins to take aim, we show her a sheet of statistics indicating that her success rate is only 45-percent. Connie, owing to her doxastic habits, no longer believes that she probably will make the basket; in fact, she believes that she probably will miss it. She proceeds to make a successful attempt to sink the shot; and absolutely everything pertinent to the etiology of the attempt and its success is precisely what it would have been in the absence of belief substitution. She tries no harder (or less hard) than she would otherwise have done, there is no increase (or decrease) in concentration, and so on.

I think Mele did not take the right opponent here. Inserting the *probably* qualification in the weak version makes all the difference. It is easily granted that an agent can intends to do A if she believes that she will *probably* not do A. However, without this qualification, the point does not seem so plausible, that is, it seems not true that an agent can intends to do A if she believes that she will not do A. As Schmid (2009, p. 6) points out:

(...) intentional self-confidence [his label for the weak version] might well be minimal. Even the faintest hope of achievement is enough. All the principle states is that intentional self-confidence cannot be zero, for one cannot intend to do what one is perfectly sure of being unable to perform.

Enç (2003) thinks that the weak version plays a fundamental role in action explanation. Taking Connie's shooting example, it would be very difficult to explain her shooting the ball if we also ascribe to her the belief that "I will not sink the shot." If the action being executed is taken to be insufficient to bring about the desired outcome, there is no reason to execute it. Therefore, Enç stresses a logical relation in our practice of explaining actions by means of intended objectives. It is necessary that the agent does not believe that she will not attain the objective if this objective plays the rationalizing role intentions usually play. Enç (2003, p. 191)

points out that this logical constraint, about explanation by intention attribution, is derivative of a rationality constraint on the agent, which is the coordination feature that has an *internal* (relative to someone's mind) aspect:

The rationality constraint, as we have been examining it, operates within the act plan that forms the content of an intention. It requires that the agent lack the belief that she will not do any of the things that are marked as the intermediate goals (or the final goal) in the act plan.

#### 4.2.4 Executive Function

The executive feature of intention has already been presented in the account of basic action as know-how in section 3.3.2. Roughly, an intention-plan selected to be carried out by an agent will contain explicit reference to a set of actions. Some of those actions the individual might know how to do without using her know-how to do something else, that is, she can perform those actions directly. Whenever the time for those actions come, a subsystem of the agent is able to produce a *bodily output* that causes the \*result\* explicitly intended. As Enç (2003, p. 71) describes it:

The conjecture here is that this [higher] centre is not the place where the causal antecedents of the limb trajectories that realize the intended macro behaviour are located. This conjecture is based on the fact that practical reasoning never goes 'beyond' the decision to produce such macro behaviour. Once the intention to tie one's shoe lace is formed, no subsequent practical reasoning is required to figure out how to satisfy the intention. If the content of the intention matches an item in one's repertoire of basic acts, and if the conditions are right, the formation of the intention becomes sufficient for its execution by the lower subsystems.

This is a rather detailed account of the executive role intentions play. Usually philosophers are skeptical or suspicious of a detailed account:

In cases of overt action what is triggered is obviously a physical process; and the triggering intentions, consequently, are realized in physical states—or so, at least, someone with my philosophical prejudices would contend. For this reason, a fully detailed answer to the question how, in a particular human being, the acquisition of a particular proximal intention triggers a particular set of actional mechanisms capable of issuing in overt action will properly be cast (at least partly) in the language of neurophysiology (or perhaps physics). I do not know how to construct such an answer in detail; nor does anyone else. The best that I can do is to offer a psychological answer: to acquire a proximal intention to A is, in part, to acquire an executive propensity with respect to the plan component of that intention. This propensity (in ordinary human beings) is realized in some physical state of the agent—a state involved in the triggering of appropriate actional mechanisms if they are in proper working order (MELE, 1992, p. 178).

My objective in endorsing Enç's account that is more detailed was to dispel the behaviorist prejudice that basic action must be some sort of bodily movement. Enç's proposal addresses the fundamental action-result problem for basic action, managing to provide an answer to which

event throughout the causal chain is the basic \*result\* by means of the relation this particular \*result\* has with the agent's intention.

Besides the varying depth of the description, the idea that intentions have an executive feature is very common. Mele (1992) uses the executive function as a fundamental and distinctive role that intentions possess in contrast to beliefs and desires. According to him, intentions have an access to the mechanisms of action that other mental states lack, showing that the reductionist view of intentions as belief/desire pair is false:

Whereas our becoming settled upon A-ing straightaway is normally sufficient to initiate an A-ing at once, this is false of the acquisition of desires to A straightaway. To be sure, someone's being settled at t upon A-ing at some later time t\* normally will not initiate an A-ing at t. But if the intention is still present at t\* and the agent recognizes that the designated time has arrived, an attempt at A-ing will normally be immediately forthcoming. On the other hand, someone who still has a desire at t\* to A at t\* may simply choose not to A and behave accordingly (MELE, 1992, p. 143).

Mele elects a particular kind of intention to perform the executive role: proximal intentions. Proximal intentions are to be distinguished from distal intentions given their relation with the actional mechanism:

(...) acquisitions of proximal intentions settle for agents the question what they will do (or attempt); and on my intention centered view, proximal intentions have a kind of access—direct access—to pertinent actional mechanisms that other psychological motivators do not have (MELE, 1992, p. 187).

Distal intentions are plans for the future; they are intentions that do not trigger any actional mechanisms: “(...) a distal intention is, in part, a propensity to execute an intention-embedded plan for action in the nonimmediate future” (MELE, 1992, p. 145). Roughly, one main difference between distal and proximal intentions is a temporal one: distal intentions are aimed to be executed in the future, while proximal intentions are to be executed right now. Mele does not take a definitive position on how these two kinds of intentions relate. He grants that proximal intentions do not depend on distal intentions, that is, it is possible for an agent to form or acquire a proximal intention right away. However, when there was a distal intention, Mele does not settle if it gives rise to a proximal intention that is distinct or if it just evolves to a proximal intention, that is, just becomes a proximal intention when the time for its execution comes.

It seems that this distinction is just a schematic way to present features of intentions, because Mele (1992, p. 193) will end up recognizing that it is quite common to have intentions that display both features:

(...) some intentions will have both proximal and distal aspects. We may refer to them as temporally mixed intentions. A temporally mixed intention is an intention whose plan component identifies both behavior to be engaged in now and behavior to be engaged in later. When one executes such an intention, the proximal aspect (typically)

figures in the triggering of pertinent actional mechanisms, and the distal aspect sustains whatever portion of the actional process falls outside the scope of the proximal aspect. For example, the proximal aspect of my intention to read the *Meno* at one sitting, beginning now, may figure in the triggering and sustaining of the actional mechanisms involved in my beginning to read the dialogue, while the distal aspect sustains my continued reading.

Mele also emphasizes the role of plans in the executive function. The triggering of the actional mechanism follows the plan component of the intention. Only when there is a plan to A there is an intention, since having a plan for A does not commit the agent to the execution of the plan. Besides having a plan for A, Mele states that we can have a bunch of other attitudes towards plans: we might find them elegant, admire them, hope them never to be executed, etc. However, having a plan to A, having an intention to A, opens up the possibility to acquire proximal intentions that will trigger actional mechanisms in order to enable an agent to perform the actions envisaged in her plan. Only intentions are executive states that enable an agent to conform the world to the content of a plan she possesses: “Proximal intentions, on the view to be developed here, are executive states. A proximal intention to do an A incorporates a propensity of the agent to execute a certain representational component of the intention, what I have called a plan” (MELE, 1992, p. 176).

#### 4.2.5 Guidance Function

The guiding function of intentions is pretty much dependent on all the previous features. The most prominent, though, is the plan component of intention. The plan establishes what to guide. The guiding function also depends on a monitoring function. By monitoring what the execution is causing in the world, an agent can guide her further actions in accordance with the plan. Mele stresses that this is the best way to identify the causal connection between the plan and the behavior of an agent. In order for the intention properly guide the action, it must figure as a causal component. This also determinates that the agent is following the plan and not acting in accordance with it accidentally: “One follows a certain plan in A-ing only if that plan figures appropriately in the etiology of one's A-ing” (MELE, 1992. P. 136).

### 4.3 INTENTION IN COLLECTIVE ACTIONS

In the last section, I discussed the roles intentions play in instantiations of actions. Intentions have an executive function, a guidance function, and a coordination function directly related to agents' capability to perform actions. Besides that, we saw that the content of an

intention is a plan. The content of an intention is an important element for the functional role intentions have in actions, since it explains some of those functions. I also characterize plans as the outcome of practical reasoning processes.

In this section, I will discuss how these functions and features can be localized in cases of collective action. I will start backwards, discussing the functions more closely related to the realization of the action, that is, the executive functions (4.3.1) and the guidance (4.3.2) functions. These functions are somewhat dependent on the triggering of an agent's actional mechanisms. Once I argued, in the last Chapter, that this is a reductive element in the scope of collective actions, those functions also will have this reductive characteristic. Putting the idea more clearly, a collective intention cannot trigger (directly) someone's actional mechanisms; therefore, this triggering will be executed by an individual's intention. However, this reductive characteristic is more properly assigned to the executive than to the guidance function. The question on the guidance function is whether there must be some sort of responsiveness and, if there is, where to locate it. Some sort of responsiveness might affect the whole plan and, when this is the case, individuals alone might not be able or responsible for providing the plan's correction in collective action cases. However, if it is the agent's own actional mechanism that is adjusting the appropriate bodily output in order to attain the desired \*result\*, then it is clearly the individual that is involved in this kind of responsiveness; that is, this kind of responsiveness in the instantiation of the guidance function also shares the reductive characteristic observed in the executive function.

Nevertheless, the reductive characteristic ceases to appear in the coordination function (4.3.3). The particular restriction imposed by the *weak view*, namely, the demand that an agent does not believe that "I will not A" whenever she intends to A, seems to threaten an intention of the form "I intend that *we* A", where the intending agent is the individual member and the intended action is a collective action. The *weak view* appear here since the individual member should believe that she will not A, given that the \*result\* A depends on other individual agents to be attained. If this particular \*result\* could be attained by that member alone, it would configure an individual rather than a collective action. Therefore, I will follow the *weak view* and argue that an intention of the form "I intend that *we* A" is irrational.

The discussion on the rationality constraint imposed by the *weak view* in cases of collective action suggests that the collective entity must be the agent intending A. I take List and Pettit's (2011) theory of *judgment aggregation* as the best way to show that ascription of attitudes to collective entities makes sense. The core feature of this approach is the description of an aggregate function that does the work of generating a collective judgment from a set of

individual judgments. List and Pettit present this theory emphasizing that it should provide a compelling explanation of groups as agents by identifying their ability to perform reasoning on their own. Their approach is based on a list of requirements that resembles those imposed by the coordination function. Roughly speaking, in order for something to be an agent, it must satisfy rationality standard regarding (i) facts (beliefs), (ii) desires (or intentions, the mental state related to action), and (iii) consistency between those attitudes (more properly the coordination function). In order to satisfy these rationality standards, a proper agent must possess the ability to perform reasoning to avoid inconsistencies. Therefore, showing that a group can perform reasoning on its own should provide a way to explain how it can produce an intention. Given that a collective entity can reason, it should be able to perform practical reasoning and generate an action-plan.

Besides the reasoning aspect, I would like to emphasize that List and Pettit's proposal assumes the form of a supervenience claim; in this sense, it is aligned with ontological individualism, in the sense that collective properties depend on individual properties. However, there is a degree of autonomy in the group level, given that it is not a reductive relation. Therefore, the reasoning and the action-plan arising from it will not have the reductive characteristic that is present in other elements of collective action. At the same time that it helps the realist commitment towards collective entities endorsed along this work, it brings the need to explain the relation between the distinctive and genuine collective intention and the individual member's intention to execute their parts on collective actions. This particular explanation will make use of a special sort of conditional intention, to be presented in section 4.3.4.

#### **4.3.1 Executive Function**

The executive feature of intentions in collective action has already been explored in the search for an adequate account of basic collective action (section 3.4). In brief, the executive feature of intention is identified when we locate the way in which an intention triggers an actional mechanism. I offered a reductionist answer for this particular issue (section 3.4.3). It makes no sense to stipulate a collective bodily output directly triggered by an intention (I take it to be a more implausible supposition than the group-mind hypothesis). Actually, this is a largely shared claim between those discussing collective actions: collective action is dependent on individual action. There is little sense in the search for collective behavior triggered by a

collective intention in the same sense that we can identify a bodily output directly produced in individual action cases.

This means that it makes no sense to search for a special collective actional mechanism. The actional mechanism in instances of collective actions is the same as individual actions. In order to spell out the actional mechanism into play in instantiations of actions, I followed Enç's (2003) proposal that is based in an account of know-how (section 3.3.2). The core feature of such proposal is the existence of a subsystem of an agent responsible for bringing about an outcome explicitly present in a command issued by a higher subsystem. This command is issued through intentions, and the subsystem is somehow capable of bringing about a *\*result\** explicitly represented in the intention. If I want to turn on the lights by flipping the switch, given that I know how to flip the switch, there is a subsystem capable of executing an order to do so. This subsystem will bring about a bodily output consistent with my circumstances (how far I am from the switch, I am standing or seating, etc.) that is efficient to cause my intended *\*result\**. It is important to insist that, in this case, I exercise my know-how to flip the switch. Flipping the switch is the basic action. The bodily output (which was not in the content of my intention) is the behavior that my subsystem brought about in order to have my intention satisfied.

Since there is no analogous actional mechanism, i.e. a subsystem triggered by an intention, in cases of social action the actional mechanisms are the same ones instantiated in individual action. This entails a reductive aspect for concepts involved in the process. In other words, the actional mechanisms, bodily outputs, and know-how possessed by a collective entity amount to actional mechanisms, bodily outputs, and know-how of their individual members. I want to stress that this is a reductive and not an eliminativist claim. And, more related to the present point, the execution dimension of an intention in cases of collective action will have this reductionist character too. Section 4.3.4 will explain the relation between collective intentions and individual intentions, demonstrating how collective action needs collective intentions but they just are efficacious through individual intentions that trigger actional mechanisms.

#### **4.3.2 Guidance Function**

The guiding aspect is also crucially involved in the execution of the plan; therefore, it also might depend directly on the individual's contribution for collective actions. Due to the presence of a monitoring function, as stated by Mele (1992), guidance seems to be involved in

polishing the plan. It might articulate quick additions and reviews of the original plan. This is an important aspect due to the incompleteness characteristic of plans. Some details of the plan might be filled along the way, and some corrections might be needed in order to attain the desired \*result\*. It seems that one important aspect of guidance is responsiveness, that is, the disposition of the agent to conform the plan to the circumstances surrounding the execution of the plan.

Since responsiveness is a core concept for the understanding of guidance, we should pay attention to the suggestion that it must be present in cases of collective action. Bratman (1992, p. 328) argues that responsiveness is a necessary ingredient of a *shared cooperative activity*:

Mutual responsiveness: In [shared cooperative activity] 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.

First, it should be noted that Bratman is talking about a very particular kind of collective action, the shared cooperative activity, where cooperation is an essential feature; and we should expect that the individuals taking part on this joint effort are sensible to responsiveness.<sup>74</sup> But, speaking of a broader account of collective actions, Frederick Schmitt (2003, p. 134) denies that responsiveness is a necessary condition for general instances of collective action to occur. He provides one counter-example:

Suppose Elmo and Flip agree to bake a cake, and they do so jointly. Elmo mixes the batter while Flip greases the pan, and so on. Suppose they do so with the common end of jointly baking the cake. Suppose, however, that Elmo, a well-known pastry chef, is fussy about how the cake is baked and would refuse to contribute to baking it if Flip were to act even slightly differently from the way he does. This joint action does not meet the requirement of mutual responsiveness under the collective end of jointly baking the cake.

Schmitt's example seem a little odd. When we speak of joint actions, it seems natural to adopt a cooperative reading, like the one required by Bratman. However, I do not think that Schmitt's example is far-fetched. Sometimes, we are not very motivated to perform an action. In those cases, we could give up if things got slightly out of the plan. What Schmitt's example presents is a version where nothing goes wrong, so the little motivation is enough to ensure that the agent will carry on her tasks along the execution process. It should be noted that this line of thought is not particularly tied to collective action cases. Even in individual action, it seems plausible

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<sup>74</sup> In order to clarify this cooperative requirement on Bratman's (1992, p. 333) account, contrast the idea with an example that lacks cooperation, like in his Mafia case: "I intend that we go together as a result of my kidnapping you and forcing you to join me. The expression of my intention, we might say, is the Mafia sense of 'We're going to New York together'. While I intend that we go to New York together, my intentions are clearly not cooperative in spirit. Cooperation, after all, is cooperation between intentional agents each of whom sees and treats the other as such; and in intending to coerce you in this way I intend to bypass your intentional agency."

that someone abandons a plan in virtue of the need to be responsive to some environmental change or unexpected obstacle. So, I agree with Schmitt that responsiveness is not a necessary feature of collective action.

However, even if not necessary, responsiveness might occur. And I think that individual members are usually highly committed to bring about the intended \*result\*, meaning that the costs of being responsive are lower than the benefits of reaching the desired outcome. This might explain why Bratman posits responsiveness as a necessary element and why we should investigate this feature a little further. In order to do so, I think that the first step is to locate more precisely where the source of this responsiveness is; the adaptation might occur in the execution or in the plan.

Enç's (2003) proposal of basic action as know-how seems to tackle executional adaptations. On that proposal of know-how, the subsystem triggered by the intention seems to exhibit some kind of responsiveness. This is just what we expect from a proper sense of know-how, since it must be instantiated in a number of different circumstances (walk with socks, shoes or on bare foot; walk uphill, downhill or in the plan; walk with foot injury, with cramping or numbness, etc.). But these are adaptations that the subsystem does in order to deliver a bodily output capable of bringing about the content of the intention; that is, in order to bring about a basic act. Given that this kind of responsiveness is strictly tied to an agent's actional mechanism, we should expect an individual contribution on this matter: it inherits the reductive characteristic associated with basic action.

Another sort of responsiveness, however, might be directly related to the plan and, therefore, might consist in the kind of adaptation that the know-how subsystem cannot operate on its own. Someone might adapt an ongoing plan in order to achieve her goal if the plan did not cover all aspects of the realization of the action or if some unexpected circumstance arises. As argued in section 4.2.1, plans are usually open. Some fix or complement on the plan might be demanded and this kind of adaptation can only take place on the higher subsystem responsible for the formation of an intention. Roughly, it demands a new process of practical reasoning, in section 4.3.4 I will offer an account of collective entities reasoning that should fill this particular lacuna.

### **4.3.3 Coordination Function**

We saw earlier that coordination is a matter of consistency. Taking intentions as distinctive mental states produces some novel demands of coherence in someone's mental life.

Usually we understand consistency as a matter exclusively related to our set of beliefs. However, intentions also seem to impose some constraints on an individual rationality; constraints that are not imposed by desires, for instance. We discussed that there are two possible conflicts for intentions: intentions incompatible with other intentions and intentions incompatible with beliefs. The second kind seems to present cases that are more interesting. Earlier I emphasized one particular discussion centered on two beliefs, “I will A” and “I will not A”, and their relation with an intention to A. Particularly the “I will not A” belief seems to pose a problem for individuals intending a collective \*result\*. If two agents are willing to lift a heavy table, because no one can do it alone, we can see two applications of the belief constraint we are discussing. If they cannot lift the table alone, they cannot have the intention to do it, i.e. they cannot have an intention such as “I intend to lift this table”. But the collective action case seems also problematic, since the individuals cannot have an intention for the collective \*result\*, i.e. they cannot have an intention such as “I intend that we lift this table.”<sup>75</sup>

The problem with these intentions is that one individual’s intention cannot have the distinctive roles that intentions have in cases of collective action. Take actional mechanism, for instance; if one individual knows that she cannot lift the table alone, so there is an obvious reason why an intention like “I intend to lift this table” prevents someone to trigger her own actional mechanism. With the collective \*result\* version, “I intend that we lift this table”, matters are no better. One’s intention cannot be causally efficacious on others actional mechanisms. My intention of the form “I intend that we lift the table” will not trigger your actional mechanisms in order for you to do your part in our collective action. An intention of this kind seems not to settle the intended action and cannot play the role intentions must exhibit in action instantiation.<sup>76</sup> Even for collective actions that could be performed by one individual alone, an individual’s intention is not enough to the collective action realization. On proxy agency (cases where someone does something that counts as or constitutes or is recognize as another person doing it), for instance, the other members of the social entity must authorize or legitimize the proxy agency, and the individual cannot bring this about on her own.<sup>77</sup>

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<sup>75</sup> This kind of intention is employed by Bratman’s (1992; 1993) proposal of collective intention in Shared Cooperative Action.

<sup>76</sup> Miller (1992, p. 283) makes a similar analysis in the case of A and B lifting a piano upstairs: “It is obviously false that A intended that A lift the piano upstairs. A cannot lift the piano by himself. It is also false that A intended that B lift the piano upstairs. B cannot lift the piano by himself. Did then A intend that both A and B lift the piano upstairs? No. For A cannot intend that B lift a side of the piano. The actions of B are not under the control of A.”

<sup>77</sup> Maybe some cases of coercion might be an exception. Someone might have means to make others believe, authorize or legitimize some action.

Maybe there are two ways someone could try to overcome this problem. The first one is to adopt the *trying* terminology and claim that, even though there is no full blow intention that “we A”, individual agents engaged in collective actions might try that “we A”. This strategy is quite similar to cases where the agent does not believe that she will A, but she intends to A anyhow. Lucky achievements might be of this sort. Mele (1992) gives us the example of someone who wants to sink a last-second basket from midcourt. This is not an everyday achievement, so the player might have some doubt about being able to fulfill her goal. The same could be applied to collective action cases. The agent performing her contribution for the collective action could just be trying to achieve what she takes to be the collective *\*result\**. Since she cannot guarantee the goal by herself, she just tries to achieve it by doing her part, and, if those she expects to contribute to the goal attainment, in fact do their part, the goal is likely to be met.

The other way is to consider others as machines. Schmitt (2003, p. 153) alludes to this solution when discussing Bratman’s (1992) position:

Abe intends to pump water into the house and moves the pump handle to do so. However, Abe’s success depends on another agent, Bill, who must turn a valve to increase the water pressure if Abe’s pumping is to succeed. Suppose, in addition, that, as Abe knows, Bill monitors Abe’s activity and turns the valve when and only when Abe begins to move the pump handle. This sets up a nonaccidental regularity between Abe’s intention to pump and Abe’s action of pumping, on the one hand, and Bill’s intention to turn the valve and Bill’s turning the valve, on the other. This regularity entails the counterfactual dependency: if Bill did not intend to turn the valve, Abe would not pump water into the house. This dependency of Abe’s pumping on Bill’s intention does not prevent Abe from intending to pump water into the house, any more than would be so if Bill were replaced with an automatic detector of Abe’s activity together with a motor to turn the valve.

I would like to stress the point that the machine-like strategy enables Abe to form the intention that *he* pumps water into the house. Doing this move is somewhat similar with the previous strategy, in the sense that the individual agent here does his part on the collective action and hope that the world will cope with him to bring about the intended outcome. In a line similar to Davidson (2002, 59): “we never do more than move our bodies: the rest is up to nature.” But, in the present case, since we cannot do more than our own part, the rest is up to others.

Both strategies seem to fail. Both displace the real meaning behind collective action; they fail to capture that collective action is a *\*result\** brought about by more than one agent. This problem is clearly seen in the second strategy, whose essence is to demote the proper status of agent from one of the individual contributors. Adopting this position does not seem to capture the phenomenon of collective action. A similar mindset is present in the first option. The lemma “I will do my part and the rest is up to others” will prevent the need to distinguish collective

from social action. Every action would end up being social in the Weberian sense, where individual agents just recognize that they are immersed in a social context and try to strategically cope with it in order to achieve their goals.

In order to discuss this point further, take Miller's (1992, p. 281) example of the individual going home by train: "I intend to be home by six o'clock partly in virtue of the actions of the traindriver, but the traindriver will drive the train whatever I do." Could this possibly be a collective action? I do not think so. It seems that something is lacking here. For sure, the individuals involved in this example do not seem to have any common *\*result\** in mind; they do not share any goal. In the best hypothesis, their plans share one common *\*result\**, which is "arriving at station X", but they are very differently related to this particular *\*result\**. The traindriver intends to run the train to the station X while the passenger just intends to ride the train until the station X. However, if this passenger is not the only one to disembark at station X, would the aggregate of passengers who disembark at that station be performing a collective action? For sure, they would all have the intention to ride the train until the station X. However, this is just a common feature of their individual intentions.

This point seems to indicate that there is a specific way for individuals to share a common *\*result\** in cases of collective action. This common way seems to be achieved through a collective intention: individuals engaged in collective action must share the same token *\*result\**, not only the same type of *\*result\**. In the next section I will argue for the need of this distinctive and genuine intention towards the *\*result\** in order for something to be considered a collective action. Section 4.3.4 will provide an explanation to collective intentionality and will present how collective intentions relate to individual intentions in cases of collective action.

#### **4.3.4 Collective Intention: aggregation function approach to planning and intending**

The problem brought about by the coordination function, especially concerning the belief that "I will not A", when A is a collective action, suggests that the proper agent of the action A must be the collective entity. In order to be a proper agent, the collective entity must have an intention. In this section, I will argue that the ascription of attitudes to collective entities makes sense. The argument will follow the *theory of judgment aggregation* (LIST; PETTIT, 2011; PIGOZZI, 2015) taking it as an adequate explanation of collective attitudes' formation. I can offer two reasons for the adoption of such an account: (i) it addresses reasoning as one of its main concerns, so it is an adequate account for dealing with practical reasoning, an essential feature of plan formation, and (ii) it is a tool that offers clearly inflationary results, i.e. clearly

locates properties that must be ascribable to the collective entity and that are not ascribable to any individual member who composes it.

Recent developments in the *theory of judgment aggregation* were prompt based on the *doctrinal paradox* observed in the jurisprudence literature. The point of the doctrinal paradox is that, in some cases, collective attitudes do not preserve consistency, even if the individual members of the collective are being rational. In other words, it is possible to have inconsistencies in the level of the group while not having any inconsistency in the level of the individuals from which the group position is derived. The well-known example of the jury deciding over a breach of contract might clarify this point.

Suppose there is a jury composed of three judges. They need to decide if the defendant is liable in a case of a breach of contract. The legal doctrine says that (c) someone is liable for breach of contract if and only if two conditions are met: (p) the contract forbids the defendant to perform some action X, and (q) the defendant in fact performed the referred action X. The legal doctrine plays an important role in this example, given that it establishes a logical connection between the requirements (p and q) and the question of concern (c). The legal doctrine settles that the contract clause forbidding the defendant to perform an action X (p) and the actual performance of X by the defendant (q) together imply that the defendant is liable for the breach of contract (c). Therefore, the legal doctrine can be expressed by the logical form:  $(p \wedge q) \leftrightarrow c$ . The doctrinal paradox arises when the judges hold the following positions on the matter:

Table 2 – The Doctrinal Paradox

Individual	Obligation (p)	Action (q)	Liability (c)
Judge 1	True	False	False
Judge 2	False	True	False
Judge 3	True	True	True
Majority	True	True	False

Source: Adapted from List and Pettit (2011).

The important point is to consider that every individual judge is consistent while the majority output is not. Judges 1 and 2 do not think that the defendant is liable, once they believe that some necessary condition was not met. Judge 3 is the only one that takes the defendant liable in the case because he considers that both conditions established by the legal doctrine were met. For sure, there is an oddity in respect of the diversion of opinions in this case. However, the point of this decision process example is not to point out what indeed occurred.

It does not matter if the contract obliged the individual not to do X nor if the defendant really did X, the truth or falsity of each proposition is irrelevant. What is at issue in this example is the plausibility of an inconsistent output for the majority. As can be seen in the last line of Table 1, taking the majority as an individual, it would be endorsing an inconsistent set of positions, at least from the point of view of legal doctrine. The majority holds that the conditions were met, that is, it considers (p) and (q) as true, but it fails to endorse what is entailed by the truth of these propositions, namely, it does not consider the defendant liable, even recognizing that all the relevant conditions for this decision were met.

List and Pettit (2011) note that this inconsistent outcome on the group-level can be generalized, it is not dependent on legal doctrine; i.e. this kind of group-level inconsistency is not an exclusive phenomenon of jurisprudence. They call this generalization the *discursive dilemma*: “The ‘discursive dilemma’ consists in the fact that majority voting on interconnected propositions may lead to inconsistent group judgments even when individual judgments are fully consistent” (LIST; PETTIT, 2011, p. 46). Legal doctrine is not the only source of interconnected propositions. List and Pettit offer other cases, such as a panel of scientists reasoning about the increase of global temperature by means of the conditional: If global carbon dioxide emissions are above the threshold (p), then the global temperature will increase (q). This investigation generates the following sentence of interconnected propositions:  $(p \wedge (p \rightarrow q)) \rightarrow q$ . Other example explores the definition of disjunction:  $(p \vee q)$  is true if and only if (p) is true or (q) is true. List and Pettit design a case where a parliament has two options to avoid a budget deficit  $(p \vee q)$ : (p) increase taxes, and (q) reduce spending. When the parliament deliberates on whether to avoid the budget deficit  $(p \vee q)$  by means of the adoption of the available options, (p) and (q), it cannot intend to avoid the budget  $((p \vee q) \text{ is true})$  without adopting at least one option  $((p) \text{ is true or } (q) \text{ is true})$ . The following table might elucidate this case:

Table 3 – Discursive Dilemma

Individual	Taxes increase (p)	Reduce spending (q)	Avoid budget deficit $(p \vee q)$
Senator 1	True	False	True
Senator 2	False	True	True
Senator 3	False	False	False
Majority	False	False	True

Source: Adapted from List and Pettit (2011).

List and Pettit's proposal aims to explain how we can consider groups as agents if they seem to always be threatened by inconsistency of the kind presented by the discursive dilemma, where the individual members maintain consistent sets of attitudes that are the bases for the collective attitude which turns out to be inconsistent. Something cannot be considered an agent without satisfying some rationality standards. The central standard in the present discussion is what they call *attitude-to-attitude* standards of rationality:

[Attitude-to-attitude standards] rule out representations that take propositions to be true that are not co-realizable, or motivations that require such propositions to be true, at least when these serve as bases for action. That is, they rule out failures of consistency (...). They also rule out deriving a motivation or intention to perform a specific action from a more general motivation without respecting the agent's representations; thus they rule out means-end failures. They rule in deductive closure, as far as feasible; this consists in representationally or motivationally endorsing any proposition entailed by other propositions so endorsed. Finally, if some of the agent's representations have evaluative propositions as their objects – that is, propositions about goodness, desirability, or rationality itself – they rule out combining such representations with attitudes that breach such presumed values (LIST; PETTIT, 2011, p. 24).

Consistency is key for the proper ascription of agency to something. If the discursive dilemma is pervasive in group reality, this kind of entity cannot be correctly identified as an agent.

List and Pettit's (2011, p. 69) solution to this problem is summarized in their *holistic supervenience* position: "Holistic supervenience. The set of group attitudes across propositions is determined by the individual sets of attitudes across these propositions." This kind of relation between group attitudes and individuals' sets of attitudes can overcome the difficulty imposed by the discursive dilemma, since it can guarantee robust group rationality. They argue that this specific kind of relation can be maintained if a group employs a specific organizational structure.

An organizational structure amounts to the rules and procedures the group uses to implement and enact a process of group attitude formation. The majoritarian process that leads to the discursive dilemma is one kind of organizational structure, for example. It is based on the procedure that a group attitude towards a proposition is formed when there is a process of polling, whether *p* is the case, for instance, and the majority of its members manifests the endorsement of that attitude. They name this scheme *majoritarian supervenience*: "The group attitude on each proposition is the majority attitude on that proposition" (LIST; PETTIT, 2011, p. 67). As shown before, this kind of organizational structure cannot be employed by a proper group agent, given that this structure will engender the rational flaws revealed by the discursive dilemma.

The special kind of organizational structure envisaged by List and Pettit that will interest me here is the *premise-based procedure*. This procedure gives priority to the outcome of premises in cases of judgment aggregation involving interconnected propositions. Recalling the doctrinal paradox, if the premise-based procedure is applied, the consistency of the group position is restored by disregarding the position of the judges about the conclusion (c). It does not matter what is the resulting opinion of the judges on that particular proposition, the group's position will be formed solely based on the judges' opinion on (p) and (q). The adoption of the premise-based procedure has some interesting consequences. Take these other two examples with a very similar structure from the doctrinal paradox, that is, where  $(p \wedge q) \leftrightarrow c$ :

Table 4 – Contrasting Examples 1

Individual	(p)	(q)	(c) [(p ^ q)]
Individual 1	True	True	True
Individual 2	True	False	False
Individual 3	False	True	False
Premise-based Procedure	True	True	≠ True

Source: Adapted from List and Pettit (2011).

Table 5 – Contrasting Examples 2

Individual	(p)	(q)	(c) [(p ^ q)]
Individual 1	True	True	True
Individual 2	False	False	False
Individual 3	False	False	False
Premise-based Procedure	False	False	≠ False

Source: Adapted from List and Pettit (2011).

First, it should be noted that Table 4 display the same situation as the doctrinal paradox; the individual members' position is the same. Therefore, Table 4 should also presents a case of inconsistency in the group-level. However, given that this group has an organizational structure that employs the premise-based procedure for aggregations on interconnected propositions, the inconsistent output is not obtained. The priority conceived to the premises of interconnected propositions means that the group output ignores the individuals' position about the conclusion.

This consequence permits List and Pettit to locate an autonomy of the group-level, given that the individuals' attitudes toward the conclusion are both insufficient and unnecessary for

the group-level position on the conclusion. These claims can be demonstrated when we contrast the two group's attitude formation cases of Table 4 and Table 5. The contrast demonstrates more clearly the autonomy of the group's position towards (c). The important aspect to consider in the comparison of these two tables is that the individuals' attitudes toward (c) are the same both in Table 4 and in Table 5. However, the group's attitude towards (c) is different in these two examples. This contrast exhibits that the group's attitude towards (c) is not determined by the individuals' attitudes towards (c); therefore, individuals' attitudes are insufficient.

However, the proposal remains supervenient on individuals' attitudes, once the individuals' positions toward the premises determine the group's attitude across the set of propositions. The individuals' positions toward (p) and (q) determine the group's position towards these propositions and, given that they are premises of the sentence  $(p \wedge q) \leftrightarrow c$ , they also determine the group's position on (c). This shows how individual's attitudes toward (c) are unnecessary for the group's position on (c).

I think that List and Pettit's theory can successfully show that the ascription of attitudes to collective entities makes sense. There are instances where it is possible to ascribe an attitude to the collective entity that is not endorsed by any of its members. The remaining of this section will present such kind of cases. The objective is to argue that collective entities possess plans and intentions that no individual member that composes it sustains. However, before doing so, I would like to stress the reasoning characteristic that can be observed in the premise-based procedure. The autonomy of the collective entity towards the formation of conclusions indicates that it is the subject performing the relevant reasoning; it is the collective entity that reaches the conclusion by means of the formed premises. So these are the two relevant aspects from List and Pettit's theory that will be applied in the remaining of this section: (i) it shows that there is a distinct and genuine group's attitude, and (ii) it shows that collective entities can perform reasoning.<sup>78</sup>

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<sup>78</sup> These are also the reasons why I prefer the premise-based procedure rather than Schweikard's (2011) adoption of the straw-vote procedure. The straw-vote procedure seems to not entail the holistic supervenience, since it will be stuck in a majoritarian model of collective attitude formation. Given that I will concentrate in these two features, distinctive attitude in the group-level (by supervenience) and the presence of reasoning, the premise-based procedure fits better my purposes.

However, Schweikard has good reasons to drop the premise-based procedure. Following Pettit (2007), he stresses that the premise-based procedure might not be able to adequately respond to evidence, infringing the attitude-to-fact standard of rationality. This happens if we take into account that the individual members' opinions on the conclusion should be evidence in favor of it. Therefore, disregarding these positions would signalize this infringement of the attitude-to-fact standard of rationality. A way to dispel this critique is to point for the epistemic beneficial aspects of adopting the premise-based procedure. A detailed presentation of this answer goes beyond the scope of the present work, but can be found in List and Pettit (2011).

There is another critique to the premise-based procedure, the problem of blocking inconsistency but not providing a way to restore consistency when the collective entity support conflicting attitudes. The straw-vote procedure is

In order to apply this framework to the formation of collective intentions by means of practical reasoning, it is important to recall the two senses of plan presented in section 4.2.1. There, I said that there are two notions of having a plan. There is a *theoretical* reading, a plan for A, which is just having a plan, that is, an abstract structure, like a recipe. Roughly, it is constituted by a set of means-end beliefs, and the important feature is that the agent is not settled upon adopting the plan; the agent has no commitment to perform it. The other kind of plan is a *practical* one, a plan to A. It is composed in the same way, by means-end beliefs, but there is the commitment element by the agent. The agent is settled upon executing the plan.

My first example presents the formation of a plan *for* making coffee (the *theoretical* kind). Consider the following table with individual members' plans and their aggregation:

Table 6 – Collective Plan for A

Individual	(i) Boil water	(ii) Add ground coffee	(iii) Brew	Plan: Making coffee by (means)
Subject 1	YES	YES	No	(i) and (ii)
Subject 2	YES	No	YES	(i) and (iii)
Subject 3	No	YES	YES	(ii) and (iii)
Premise-based Procedure	YES	YES	YES	(i) and (ii) and (iii)

Source: Author.

Table 6 shows that activities (i), (ii), and (iii) are means to the *\*result\** of having coffee, the event related to the action of making coffee. In this case, I take that the selected means are jointly necessary to the end. They are not alternative means, that is, they are not alternative courses of action that will lead to the end; they are stages to it. The right column shows that each individual member has an incomplete plan. Given the supposition that the means are jointly necessary to achieve the end, no member possesses an effective plan; every individual plan lacks some necessary mean to attain the *\*result\**. However, in aggregating the steps that

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a way to bring inconsistencies to discussion, whereas the premise-based procedure is designed to avoid the very formation of inconsistencies. Dealing with inconsistencies seem to be a more agent-like feature than the adoption of a structure that prevents an entity to ever be inconsistent. Besides that, Schweikard argues that the premise-based procedure can fail to block inconsistency in cases where there are logically interrelated propositions being aggregated diachronically. An entity might consider whether “p” today; whether “q” next week; and whether “p and q” next month. This could lead to inconsistency, even in the premise-based procedure. However, I think this is not a good counter-example to the premise-based procedure. I take it to be a problem of agenda formation. The last aggregation should not take place. The collective entity should already have an attitude towards “p and q”, or be somehow disposed to form it when the questions whether “p and q” became relevant.

To sum up, the impossibility to be inconsistent is a big problem, indeed, but the lack of holistic features render the account too individualistic. In order to argue in favor of a robust realist position to collective entities and their attitudes, I stick with the premise-based account.

form the individual plans, the resulting aggregated plan, possessed by the collective entity, includes every necessary mean in order to achieve the envisaged goal.

This example aims to show that a collective entity can have a plan for A even if none of its members has this plan. But it should be stressed that this is the *theoretical* and not the *practical* kind of plan. It just demonstrates that a collective entity might have a better set of means-end beliefs in order to compose a plan for A, compared to the articulation of plans for A by its individual members.

With some changes, I think it is possible to offer a better case that impact more directly in the intention formation of a collective entity. In this second case, the objective will be show how a collective entity can form the belief that it is capable of doing A, even if each individual member believes that the collective entity is *not* capable of doing A (a belief that should prevent a rational agent to form the intention to A, as seen before).

In this example, the *\*result\** will be to have coffee again and the same three jointly necessary stages will be considered as the efficient mean to attain this goal. However, in this case, we will not aggregate the plan, in fact, every member (and the collective entity) already have the plan: every member believes that “(i), (ii), and (iii) are jointly necessary (and sufficient) stages to the achievement of A”, which will amount to the logic sentence:  $((i) \wedge (ii) \wedge (iii)) \leftrightarrow A$ . In the following table is presented the individual beliefs regarding the specific ability to perform (i), (ii), and (iii) and the capability to bring about the desired *\*result\**. Since we are dealing with a collective context, we can assume that the belief of the individual members should not be restricted to her own ability to perform the relevant actions, that is, she can believe that another individual member possesses that specific ability.

Table 7 – Blocking the Belief that “I will not A”

Individual	Know how to boil the water (i)	Know how to add ground coffee (ii)	Know how to brew (iii)	Know how to make coffee (A)
Subject 1	True	True	False	False
Subject 2	True	False	True	False
Subject 3	False	True	True	False
Premise-based Procedure	True	True	True	True

Source: Author.

Assuming that someone knows how to make coffee (A) only if she possesses the know-how to perform the actions (i), (ii), and (iii), Table 7 shows that each member of the collective

entity does not believe that the entity knows how to make coffee (A). This follows from the fact that no member believes that the entity has the set of specific abilities jointly necessary to A; therefore, they do not believe that the collective entity is capable of performing A. This should impair the collective entity's formation of an intention to A, given the restriction imposed by beliefs of the sort "I will not A" in rational agents who intend to A. However, if we apply the aggregation of individual's beliefs, via the premise-based procedure, it can be the case that the collective entity form the belief that it knows how to A, as shown in the last line of Table 7. This outcome can ensure that an intention to A, sustained by the collective entity, will not be irrational.

List and Pettit confine their proposal to aggregation of beliefs and desires (judgments and preferences); therefore, they endorse a reductionist view on intentions, where intention amounts to a set of beliefs and desires. In their conceptual model, intentions do not figure as distinctive attitude. I argued against this view when discussing the features of intention (4.2). However, I also argued against the possibility of an individual member intending to perform the collective action; i.e. sustaining an intention of the form "I intend that we A." These two assumptions seem to prevent the adoption of attitude aggregation to cases of intention.

In the following, I will propose a way to form a collective intention via aggregation of individual intentions.<sup>79</sup> This might be possible given some conditions: (a) a *heterogeneous* supervenience relation, (b) a special form of conditional intention maintained by the individual members, and (c) the possession of a plan for A (the theoretical one, since the objective is to form the practical one) by the collective entity. The input of this aggregation of intentions will be individual intentions, similar to what happened in the previous cases, where we were dealing with an aggregation of individuals' beliefs to form a collective belief.

However, in the case of belief, there was no restriction for the conclusion. An individual member could believe that "(i), (ii), and (iii) are the necessary stages to A" or that "we (the collective entity) know how to A". The difficulty now is that the individual member cannot intend that "we A", as seen before. Given this restriction on the conclusion, I will explore the holistic characteristic of the supervenience, resulting from the adoption of the premise-based approach, where the formation of the collective attitude does not depend on the individuals' position regarding the conclusion. Given this independence, there is no need for any individual member to maintain an attitude regarding the conclusion.

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<sup>79</sup> I am greatly indebted to José Leonardo Ruivo for the development of this approach. He provided essential insights that guided to this solution. Of course, he is exempt of any responsibility for possible mistakes.

Another idiosyncrasy of the supervenience relation that will be adopted in this proposal is its heterogeneity, which List and Pettit (2011, p. 71) shortly explain as: “where different members play different roles in determining the group’s attitudes.” Therefore, the individual member does not need to have an attitude regarding the conclusion (independent) nor regarding *all* the premises (heterogeneity). Heterogeneity is the mark of the division of labor, one of the most important reasons for people to engage in joint endeavors. List and Pettit (2011, p. 57) make use of heterogeneity to present a case where there is a division of cognitive labor: “Here different group members are assigned to different premises and form attitudes only on these premises; they each ‘specialize’ on their assigned premises.” In this case, the group is divided into subgroups that concentrate on taking a position on one particular premise. This might be a very useful strategy if each premise demands good evidence or if the group is composed of individuals highly specialize in different fields. The same idea might be applied to intention, where individual members will be committed (instead of specialized) to the performance of an action (instead of a proposition).

This commitment should be represented by an intention towards a specific action, the individual contribution that the member is committing herself to perform. However, this intention is presented as a conditional intention of the form (I am still utilizing the making coffee example): “I intend to do (i) *if* you do (ii) and (iii)”. However, this particular form will not work too. As noted by Tuomela (2007), this way to formulate the intention opens a regress and the individual agent cannot deconditionalize the conditional intention in a rational way. This happens because the other members of the collective entity will form conditional intentions of the form: “I intend to do (ii) if you do (i) and (iii)” and “I intend to do (iii) if you do (i) and (ii).” Every individual member will be waiting for the actions of others to deconditionalize her own conditional intention and execute her part. Tuomela (2007, p. 75) makes the regress explicit the following way: “I will do X given that you will do X, but you will do X given that I will do X, but I will do X given that you will do X, but you...ad infinitum.”

I agree with Tuomela that there is no possible rational way for an agent to deconditionalize this kind of conditional intention. Therefore, the proper form of the conditional intention must be: “I intend to do (i) if we intend to A”. In this form, the intention is not being conditionalized on other individual members’ contributions, instead it is conditionalized on the collective intention to perform the *\*result\**. The collective intention is the element securing that every individual member will carry out their parts, being the appropriate *reason* to deconditionalize the conditional intentions involved. Therefore, this kind of conditional intentions is the appropriate input in an intention aggregation.

The last element of this aggregation process is the plan for A. The collective entity can form an intention to A when it has a plan for A and identifies that every necessary mean to A will be performed by some individual member who manifests her (conditional) commitment to do her part in A. Insisting in the same example of making coffee (therefore, the collective entity have the plan for A: it believes that “(i), (ii) and (iii) are jointly necessary (and sufficient) stages to the achievement of A”, which will amount to the logic sentence:  $[(i) \wedge (ii) \wedge (iii)] \leftrightarrow A$ ), we should have this aggregation:

Table 8 – Intention Aggregation

Individual	Intend* to boil water (i)	Intend* to add ground coffee (ii)	Intend* to brew (iii)	Intend to A
Member 1	YES	-	-	-
Member 2	-	YES	-	-
Member 3	-	-	YES	-
Premise-based Procedure	YES	YES	YES	YES

Source: Author.

It is important to note that Table 8 presents the heterogeneity feature. This should be particularly relevant on the formation of intentions, since it is the very purpose of adopting a division of labor that some individual members do not need to perform some of the necessary tasks; that is, there is a distribution of the necessary means among the individual members. With the formation of a collective intention, the individual members can deconditionalize their conditional intentions(\*) and perform the necessary tasks to attain the collective intended \*result\*. In order to do so, they must have access to the collective attitude just formed, so there must be some method for communicating the members about the output of the aggregation (which should not be an exclusive characteristic of intention aggregation). Individual members do not have any immediate or privileged access to group’s attitudes. They must know about their group’s attitudes the same way we know about attitudes of other people, through some evidence that indicates that it is the case.

I see two problems for the approach of intention aggregation just presented. First, it is very restrictive. This is an inherited characteristic from the adoption of a premise-based procedure, so it is also a problem for other kinds of aggregation. It seems that collective entities do not adopt decision procedures with this particular structure. Polling is frequently referred by List and Pettit as a method for picking the individual inputs, and this method tends to be concerned solely with the proposition figuring in the conclusion. Take an election as an

example: voters choose a candidate; this is the individual input. We do not choose the best economic program, international affairs policies, social policies, etc. For sure, each voter takes those criteria into consideration (at least should take), but their opinion on *each premise* do not serve as input in an election, there is no polling of these criteria.

Discussion on premises, like the required in premise-based procedures, usually occurs with other methods of collective decision that do not configure as proper *aggregation*. Perhaps the most usual method is deliberation: a polling of information and arguments in a public forum via the direct and conscious communication among the participants (LANDEMORE, 2012). Deliberation does not fit as an aggregation procedure especially because the collective characteristic is mitigated. As List and Pettit's proposal presents, the way an entity is structured plays a decisive role in the process of collective attitude formation. It is very impressive how the premise-based procedure highlights the emergence of a position not endorsed by any member. In a deliberation procedure, all the reasoning is easily identified as being performed by the individuals involved. Deliberation assumes a less structured procedure, where might be sufficient the adoption of a strict individualist approach to explain it. Its outcome is the product of the interaction of some individuals with no distinctive collective element clearly present, individual interrelations suffice; there is no need to posit any distinct collective property. However, deliberation might be the most usual method for decision-making in social contexts. A way to overcome this difficulty would be to explain deliberation in terms of aggregation. I do not know if it is possible and I will not attempt to do it here. If this could prove to be a successful strategy, some similar structures, as the examples presented in this section, could be employed to other cases of collective attitude formation, making it a model that covers much more instances.

Another problem is the oddity of having a backward practical reasoning. In the aggregation of intention presented here, the collective intention, which should be the intended end, is the outcome of the individual's conditional intentions, which amounts to the means. This structure seems to displace the collective *\*result\** from the role of conferring the purposiveness of the plan; that is, the central element that motivates the whole process of reasoning for means. However, the relevant *\*result\** still configures as part of the intention conceived as the whole plan, even if it seems to appear more like a foreseeable side effect than the central purpose of the plan. This odd consequence is the outcome of trying to fit a structure that takes into account the premise-based procedure to practical reasoning. The collective entity can only perform the practical reasoning to form the collective intention from a plan for A and the aggregation of the individual commitments to the performance of the means to achieve A maintained by the

members of the collective entity. This strategy is responsible for the outcome (the collective intention) appearing as a foreseeable side effect rather than the actual purpose.

These two problems are significant negative points for the proposal. However, the approach also has some important positive aspects. I think that the most positive aspect is the clearer identification of individual and group mind. The literature on collective intentionality tends to be heavily individual driven. Some sort of reductionism is often observed (I will not address eliminativists positions here). A popular individualistic reductionism is the position of Bratman (1992, 1993). An analogy with the reductionist view in individual intention might characterize this account: just as individual intention is reducible to the belief/desire pair, collective intentions are reducible to individual intentions; an individual intention consists in a set of beliefs and desires, a collective intention consists in a set of individual intentions (appropriately related by some sort of mutual belief).

Another kind of reduction is about the mind; i.e. about whose mind is bearing the intention. This is the *we-mode* approach defended by Searle (1995, 2010) and Tuomela (2007, 2013). The idea here is that groups cannot have minds on their own, so the individual members should be the proper bearers of every mental attitude involved in social phenomena. However, those philosophers deny the claim that intentionality only comes in the individual form. In the following excerpt, Searle (1995, p. 25-26) synthesizes this idea:

It is indeed the case that all my mental life is inside my brain, and all your mental life is inside your brain, and so on for everybody else. But it does not follow from that that all my mental life must be expressed in the form of a singular noun phrase referring to me. The form that my collective intentionality can take is simply “we intend,” “we are doing so-and-so,” and the like. In such cases, I intend only as part of our intending. The intentionality that exists in each individual head has the form “we intend.”

In contrast to these reductionists proposals we can identify the advantage of an approach that follows judgment aggregation in the explanation of how a distinctive group mind can exist without the whole spookiness that it seems to evoke. As presented before, some structures of aggregation might explain how a collective entity can form an attitude that is not endorsed by any of its members, denoting its independence, and explain how individual attitudes are the inputs on the lower-level base of this supervenient outcome;<sup>80</sup> therefore, dispelling the spookiness.

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<sup>80</sup> This means that the judgment aggregation proposal also has its own share of individualism. The idea here is that the collective features are ontologically dependent on individual features. However, this dependence assumes a supervenient, rather than reductionist relation: “Individualism insists on the supervenience claim that if we replicate how things are with and between individuals, then we will replicate all the social realities that obtain in their midst: there are no social properties or powers that will be left out” (PETTIT, 2003, p. 191). The spookiness is prevented since there is no need to postulate any kind of social stuff that is completely unrelated to individuals.

I already argued against Braman's position by pointing out that an intention of the form "I intend that we A" is irrational, given the rational constraints of intention's coordination function. Now, I will try to mention some problems for *we-mode* theories. First, it seems odd that someone can really bear an attitude in the first person plural form. People can report attitudes that they do not have, and this might be the case with the phenomena that *we-mode* theories want to address. When I say that "we intend to make coffee", I might just be guessing what is the collective intention of the group I am a member. Perhaps I *believe* that "we intend to make coffee" given that I heard the other members saying that they will do their parts. However, in this case, I will be just reporting what I *believe* to be the collective intention of a group, and just happens that I am a member of the group. The fact that I am a member does not seem to entail that I have some sort of direct or immediate access to the group's attitude; in the best-case scenario I might be in a better position to collect evidence concerning it, that is, to justify my belief about the group's attitude.

Notwithstanding, my relation to it would still be in a *third person* perspective, it is the same position I have towards attitudes of other people. "We intend to make coffee" might be an attitude report of the same kind as "My mom intends to go to the beach". Even the fact that my own conditional intention is being used in an intention aggregation should not allow me to form a proper *we-mode* intention. My conditional intention is not sufficient to the formation of the collective intention towards the collective *\*result\**; therefore, it should not allow me to be in the *we-mode*.

I think that the best way to compare my proposal with Tuomela's and Searle's *we-mode* accounts is to make more precise the formation of the intention, in the one hand, and how it takes part in the execution of the intended action, in the other. In my proposal, the formation occurs via aggregation of individual's conditional intentions. The execution happens with the deconditionalization of these conditional intentions. When the individual member, which has the conditional intention of the form "I will do my part if we intend to A", is informed that the aggregation was successful and the collective entity formed the intention to A, she can deconditionalize her conditional intention and perform her part.

Tuomela's execution stage is very similar to mine. He presents the reasoning that leads an individual agent to perform her part in the following way:

(W1): (1) We will do X jointly.  
 (2) I am one of "us" (the present group).  
 Therefore, (3) I will do my part of our joint performance of X.

(W2): (1) We will do X jointly.

(2) X cannot be performed by us jointly unless we perform action Z, for instance, teach, help, or pressure a group member to perform his part action.  
 Therefore, (3) We will do Z.  
 (4) Unless I perform Y, we cannot perform Z.  
 Therefore (because of (3) and (4)), (5) I will do Y (as my contribution to Z).  
 (TUOMELA, 2013, p. 82).

(W1) is very similar to my proposal of execution via deconditionalization. However, (W1) (2) presents an important element: the sense of membership that the individual member has. In (W2) (5), there is another important feature: the (collective) commitment to bring about the collective \*result\* X, demonstrated by the agent's adoption of what she sees as a necessary mean to attain that end. Tuomela's account seems to encompass these very important features of the relation the individual member has with the collective entity: recognition of membership and commitment to collective objectives.

The sense of belonging and the collective commitment to group objectives are just presumed in my account. I do not see it as a fatal flaw since it could be a positive aspect the fact that the individual member, in my account, just has a conditional intention that depends on the formation of a collective intention, this could be a less demanding requirement to someone qualify as a contributor for a collective action. However, features about membership and commitment might be involved in the formation of this conditional intention. If the individual is not a member, her conditional intention might not even be suitable to be aggregated. It also can be doubtful that the individual is adequately motivated to form the conditional intention if there is no explanation about her relation to the collective entity. These kind of considerations need to block counter-examples such as "I intend to read 'The Canterbury Tales' if the library intends to open tomorrow", where there is a conditional intention related to a collective entity's intention, but, in this case, the individual does not recognize his action as part of the action intended by the collective. This case seems to amount to a Weberian sense of social action, where the individual just takes into consideration other agents' actions as obstacles or opportunities to achieve his own goals; the only particularity here being that the individual is also taking collective entities' actions in consideration.

Despite this lack of collective normative aspects in my account, Tuomela's reasoning resembles my deconditionalize proposal. One approximation being that: "(...) one cannot satisfy a we-intention alone (...) because the we-intending agent presumes that there is a joint intention that is conceptually prior to we-intention" (TUOMELA, 2013, p. 74). And, regarding this particular approximation, I think my proposal is much clearer than Tuomela's because the conditional intention is simpler than the we-intention. There is nothing complicated in a

conditional intention that “I intend to do my part if we intend to do A”. Tuomela’s we-intention should capture exactly the same:

Such a we-intention (...) entails a participant’s intention to participate in their performing X together—either in an “actional” sense or in the sense of taking part in the group’s, “our”, collective responsibility for X. This is the core of we-intention, and it refers to an action that the participant normally can be assumed to be able to perform on her own, while the joint intention may involve a content that the participants may only achieve together. (TUOMELA, 2013, p. 73).

So, a we-intention should capture exactly the same of an intention to do my part. As seen in the reasoning schema, the only advantage of a we-intention is making explicit the sense of membership and the commitment to the collective endeavor. Those features are just implicit in my proposal. Very roughly, these could be accounted for with the fact that the individual could only take part in the aggregation if she already qualifies as a member of the collective entity, and would only form a conditional intention if she recognizes this membership, and knows that her conditional intention depends on a part-whole relation: the individual knows that the action she is intending to do is part of the collective entities’ goal.

When compared with Tuomela’s account, my proposal seems to fare better in the production rather than the execution stage, especially if someone is concerned to claim in favor of collective agents as real beings. As cited before, Tuomela’s we-intention depends on joint intention, which is defined by him in the following way:

(...) the core idea in my view of joint intention (i.e., a jointly held intention) for egalitarian cases is that for you and I qua members of g to intend jointly to perform X together it is necessary and sufficient that you and I, qua members of g, both intend to participate in our performing X jointly for us and do it qua members of g being collectively committed to performing X jointly; and you and I mutually know (or correctly believe) all this. (This account is partly circular, for intentional joint action must here make reference to joint intentions.) (TUOMELA, 2013, p. 77).

In short, a joint intention is an inter-relation of attitudes. The individuals involved must intend, commit and believe. I think that the problem here is this circular relation between joint intention and we-intention, especially if we are interested in the formation of these things. As said before, Tuomela takes joint intention to be conceptually prior to we-intention. But in his definition of joint intention there is an individual intention “to participate in our performing X jointly for us”, which seems to be the individual contribution to X and amounts to the notion of we-intention discussed above. This interpretation might be supported by Tuomela’s (2013, p. 77) claim that: “(...) in my view the idea that we-intentions are ‘slices’ of joint intentions, also gives more information about the notion of joint intention.” Trying to spell out this circularity more clearly: joint intention are prior to we-intentions; joint intention depends on some sort of commitment to perform my individual part in the joint endeavor; this commitment should be

captured by the we-intention I maintained. It seems that Tuomela's notion of joint intention depends on we-intentions and we-intentions depend on joint intention.

A possible answer for this circularity problem in the scope of attitude formation is that the priority is just conceptual, so both joint intention and its related individual counterparts (we-intentions) are formed at the same time. I think this is a good answer to the *priority* problem; however, there are some further issues. The first, and more serious, is that this is a very individualistic position. This approach is not committed to proper collective properties. A position that is explicitly endorsed by Tuomela (2013, p. 47):

My view is that group agents are mind-dependent entities and fictitious in the mind-dependence sense that involves collective imagination, idealization, and construction. They do not exist as fully intentional agents except perhaps in the minds of people (especially group members). This also makes the intentional states attributed to them fictitious because the bearers (*viz.*, group agents) of these states are fictitious (not real except in the minds of the group members). That a group's intention or belief, etc., is fictitious entails that it is not literally true that it intends or believes, etc. Its intentions and beliefs are extrinsically attributed to it by group member and others. Yet the group functions as if it really, *viz.*, intrinsically intended or believed, etc.

In contrast to Tuomela's factionalist position, my proposal can give reasons in favor of an ontological commitment to distinctive collective properties. Without this sort of ontological commitment, there is no need to posit a distinctive category of collective action. Concerned with this aspect of social reality, I highlight the importance of my account in offering an explanation of collective intentions, given that it seems impossible to postulate a collective basic action or bodily movement. Without a reasonable argument in favor of the real existence of collective intentions, we might doubt that there really are collective agents.

Tuomela's joint intention is not the only element of his approach that has an individualistic nature. His account of group intention is also particularly reductive.<sup>81</sup> The standard case of group intention to Tuomela is consensus and, in organized structures, a

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<sup>81</sup> I will not enter into details of his formulation, just point out the overall individualistic vein. Note that every condition (1)-(4) makes exclusive reference to individual members and their relations; there is no distinctive collective property needed. His full proposal is:

“(GI) Group *g* intends to see to it that *X* obtains (or comes about, etc., where *X* is an action or state) as a group if and only if there are authorized operative members or individuals for decision making in relation to *g* such that (1) either (a) these operative agents are internally authorized and, acting as group members in the we-mode, have formed the joint intention that *g* through its members will see to it that *X*, or (b) the operative members for decision making are externally authorized to see to it that *X* and have ordered some other group members (nonoperatives for decision making but operatives for plan-realizing action) to actually achieve or realize *X* having formed the shared intention to do it;

(2) in (1) there is a respective mutual belief among the operative members to the effect that (1)(a) or 1(b);

(3) both (a) in the internally and (b) in the externally authorized cases the nonoperative members qua members of *g* group-normatively ought to accept as true that their group *g* intends to perform *X* (as specified in clause (1)), and go along with the group's directives);

(4) there is a mutual belief in *g* to the effect that (3), or at least this belief should be attainable by the members.” (TUOMELA, 2013, p. 87).

hierarchical normative power structure that grants decision-making privilege to some position-holder. The first case is democratic, but individualistic; consensus is obtained by a shared property among the members. The second is also individualistic since there is one designed member responsible for determining the group's intention. Trying to make a realist defense of collective agents, my proposal seems to give more support to a claim like:

Groups (especially group agents) as social systems (interconnected structures formed out of individuals and their interrelations) seem generally to be ontologically emergent (i.e., involve qualitatively new features as compared with the individualistic basis) and irreducible relative to the individualistic, I-mode properties of our common-sense framework of agency and persons. (TUOMELA, 2013, p. 91).

His lack of commitment to distinctive collective properties seems too weak to support that claim:

(...) the group-based approach of this book is conceptually collectivistic, but ontologically it does not postulate full-blown, intrinsically intentional group agents with minds of their own—while recognizing the existence of social groups as basically irreducible systems. The present approach is ontologically individualistic in the sense that we-mode states and properties are attributed to individuals, severally or jointly, when they function as group members. Recall, furthermore, that my approach claims that people are the only ultimate agentive initiators of causal chains in the human social world (TUOMELA, 2013, p. 93).

Searle's (2010) approach is far less extensive than Tuomela's work on the we-mode. This leads to difficulties to apprehend how we-intentions are formed in Searle's approach, for instance. He distinguishes between a prior intention (similar to distal intention seen earlier) and an intention-in-action (similar to proximal intention). Roughly, prior intentions are plans to be executed in the future and intention-in-action is the mental state that causes our bodies to move. This could be a good way to identify the production stage, concerning a prior intention, and the execution stage, concerning an intention-in-action. However, Searle does not say much about the first kind, which I would bet as the most usual kind of collective intention. In order to do something together, people usually plan how they are going to attain their desired common \*result\*.

Searle (2010) focusses in the intention-in-action. He is concerned with the following problem: how can we-intentionality move individual bodies? The first thing he notes is that we-intention is directed to a particular kind of action, they are always complex actions; i.e. things that someone aims to achieve by doing something else (recall the production regress problem of action, section 3.2.1). Searle (2010, p. 36) follows Davidson's *identity thesis* of individuation and claims that:

(...) if the chairman says, "All those in favor of the motion raise your right hand," and I raise my right hand, I am not only raising my right hand but also voting for the motion. These are not two separate actions – raising my right hand and voting; rather, they are one action with two levels of description of the two different features of the

action. Raising my right hand in that circumstance constitutes voting. I vote by way of raising my hand.

Besides the *by way of* relation, which is a constitutive relation, there is the causal relation expressed by *by means of*, that is instantiated in cases such as “John shoots Smith by pulling the trigger”. In the *identity thesis*, all these action verbs (shoot and pull; vote and raise) are just different descriptions of the same action. Searle accepts the linguistic reading of the *accordion effect*: we can redescribe actions using its causes and consequences.

Collective actions will always be complex actions. They depend on others’ contributions; they are not something that an individual agent can bring about alone. A collective action will always be obtained *by way of* or *by means of* individual actions. Using Searle’s notation for intention-in-action, we-intention-in-action might assume the following general content:

(ia) collective \*result\* by means (or by way) of individual contribution.

As argued before, (ia) could be irrational if the agent believes that she will not attain that \*result\*, given that it is a collective \*result\* and, usually, no one can bring it about alone. This explains why the we-mode must be postulated since the agent recognizes that she is not bringing that \*result\* alone. However, this demands that the individual agent has a belief regarding the other participants’ contributions. This belief should guarantee that the other members will do their parts, therefore secure that the joint endeavor will be realized and that the we-intention is rational.

I can agree that this kind of evidence could be strong enough for someone intending to do her part, but it could fail to contribute to the formation, by an individual member, of a we-intention which content is the collective \*result\*. Important collective features could be threatened in this account. To make this claim more clear, take Searle’s (2010, p. 54) clarification of this belief’s function: “I simply take it for granted, in that context, that if I do my part we will be trying to achieve the goal, because I am operating on the assumption that you will do your part, and you are operating on the assumption that I will do my part.” With this description, the relevant belief might not be doing the job necessary to form a proper we-intention, with a real collective content. This description seems to me very similar to the way someone could avoid the problems of the “I intend that we A” by treating other agents as mechanisms. This strategy is based on disregarding the other participants of the joint endeavor as proper agents. However, it seems very odd that we do things by (individually) trying to achieve collective \*results\* and just hoping that others will do their parts, in an analogy with

Davidson's remark that we just move our bodies and the rest is up to nature. This will amount to the Weberian sense of social action, where I treat my social context as presenting opportunities and obstacles when I am trying to bring about some desired \*results\*; I make use of this context in the same way I use nature to attain my goals. I do not think that this is the best account of actions in the social realm that we can offer.

Searle (2010) has some way to respond this accusation by making explicit the content of the belief:

Bel (my partner in the collective action also has an intentions-in-action of the form ((ia) collective \*result\* by means (or by way) of individual contribution)).

He offers this formulation precisely in response to an attack of the sort presented before, regarding the apparent lack of *collectiveness* in his account. Here, he aims to show that one agent has the belief that the other agent is also acting with an intention towards the same collective \*result\*. More than that, the belief is about other's intentions; therefore, this belief shows that the bearer of a we-intention takes others as real agents and not regularities or environmental variables. However, I think that there is a circularity underneath this structure. If my we-intention depends on a belief about your we-intention, then you formed your we-intention regardless of mine or with a false belief about my possession of such intention. Just as in Tuomela's account, formation in the we-mode is a rather complex procedure to describe and it seems always threatened by some sort of circularity.

Going back to the individuation of action endorsed by Searle, it is not clear what he takes to be the *real* action if those complex action schemas represent only more than one description of the *same* action. I think he would adopt a Davidsonian vein and consider basic actions<sup>82</sup> as the only *real* action that there are. As seen before, this is a threat for proper collective action, since there would be only individual's basic actions figuring as *real* actions. I think Searle would not be bothered with this consequence since his strategy is already aimed at denying a proper group mind, this individualistic conclusion about actions might fit in an overall individualistic framework. The only difference his approach would have to Ludwig's (presented in section 3.4.2) is that he gives some priority to the role of intention in the accordion

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<sup>82</sup> As seen before, Searle is one of the philosophers that tried to detach the idea that basic actions can only be bodily movements: "Anything that you can do intentionally, where you do not need to do anything else intentionally by way of which or by means of which you do the first thing, is a basic action. In our example of firing the gun by means of pulling the trigger, and killing the enemy by means of firing the gun, we may think of pulling the trigger as a basic action. We assume that the agent does not need to intentionally do anything else by way of which or by means of which he pulls the trigger. He just pulls it" (SEARLE, 2010, p. 37).

effect application. Searle would not deny Ludwig's position, would just highlight that there is a substantial contrast between individuals causing an event with or without we-intentions. This distinction should explain what does it mean that some collective \*results\* are brought about through cooperation. However, any consequence of someone's actions can be used to redescribe it, but we-intention explains how descriptions of many agents' consequences can be intentional.

To sum up, I did not aim to offer any knockout arguments against the we-mode. Just thought it was useful to contrast my position with it, making my own proposal clearer. The main idea that guided my approach is that if we take collective agents as real agents, they should be able to conform to rational requirements. This demands some features such as reasoning. List and Pettit's theory seems to offer a good explanation of how collective agents can have minds on their own, performing reasoning and sustaining attitudes. This theory does not appeal to some sort of spooky collective stuff; it is based on a supervenience claim that can locate individual contributions to these collective-level properties. Albeit being the supervenient base of the process, individuals do not seem to have some sort of immediate access to group's attitudes. They need feedback; they need to know the attitude sustained by the collective entity by other means. This might not be so evident, because, especially with small groups, the way to form collective attitudes is much more unstructured and spontaneous, based on simple deliberations where every member is face to face to each other. In these circumstances, the relevant attitude emerges through these interactions, so the outcome, the collective attitude, is readily apprehended; giving the illusion that individuals might have some sort of direct contact with collective entities' attitudes of which they are members.

The central aspect of the present section contrasts with the last chapter conclusion, where I argued that basic actions occurring in collective actions have a reductionist character, that is, the instances of basic action present in collective actions are necessarily performed by individual members of the collective agent. In terms of know-how, the basic actions repertoire of a collective entity is identical with the basic actions repertoire of its members.

This section shows that another core feature of action is not reductionist. Collective entities are capable of developing practical reasoning in order to form effective plans to achieve its ends. These plans can be created by mechanisms such as an aggregation function. One important finding of this presentation is that even when the members of the social entity fail to form a plan for A, the collective entity might be able to form it, and when members do not believe that the collective is capable of performing some action, it is possible that the collective entity believes that it can. This aspect of the practical reasoning through aggregation functions

reveals a potential inflationary feature for this pivotal element of action in cases on the collective realm.

Besides that, sections 4.3.1 and 4.3.2 aimed at showing that the executive and the guidance functions inherit the reductionist characteristic from their close association to the triggering of actional mechanisms of an agent, so these functions could not be performed by a collective intention directly. In this section, I tried to explain how collective intention can relate to the individual intention that triggers an actional mechanism of an individual member by means of the deconditionalization of a conditional intention, where the content is that the member will do its part given that the collective entity intends to perform the collective *\*result\**. In this sense, even if executive and guidance functions are intrinsically reductionist, their role in collective action depends on the formation of a collective intention. However, the collective intention only activates the executive and guidance functions through the deconditionalization of an individual member's conditional intention.

#### 4.4 ACTION CONSTITUTION: INTENTIONS, EVENTS AND THE SIMPLE VIEW

The discussion so far points to two alternatives on the nature of actions based on the problem of action individuation. On one hand, there is a Davidsonian approach that tends to focus the attention to the basic action (this particular position is endorsed by Davidson (2002), of course, but also Enç (2003) and Ludwig (2014a)). If the many descriptions refer to one action only and action is a subspecies of event, it is necessary to identify which particular event of the chain is the action, while the others are mere causes or consequences (they are not real actions). Although not figuring as proper actions, those other events enable us to redescribe the *real* action. So, when John shoots Smith, this is just a redescription for John's fingers' movement, the *real* action. We can refer to real action with a description of its consequences, so we can refer to the movement of John's fingers with the description "John shoots Smith", since the latter is a consequence of the former. The problem with this approach for social ontology is that it entails an eliminativist account (like the one endorsed by Ludwig (2014a)). If the only *real* actions are basic actions, and collective entities do not seem capable of performing this kind of action, then collective action does not exist. Mentions to collective action are just a way of speaking, with no ontological significance.

Goldman's position in the individuation of action debate seems to open the possibility for real collective action. The fine-grained approach claims that there are much more actions being executed than Davidson's position wants to concede. This is possible due to level-

generation. This special kind of relation between actions enables an action theory to explain the status of action for events that are not basic actions of the agent. Given the relation of level-generation that further events maintain with basic actions, they might constitute further actions. However, Goldman adopts a rather externalist point of view in his analysis on the nature of actions. I think that this might be a consequence of his adoption of the Causal action theory. The Causal action theory is an excellent approach to the explanation of basic actions but does not fare so well in explaining the propagation of the action status throughout a chain of events.<sup>83</sup> The Causal action theory seems not able to offer the sufficient conditions for the identification for every kind action; it does not spell out which conditions an event should have in order to constitute an action. This approach can successfully do this job for the case of basic actions, but it fails to address non-basic actions; which seems to be a very common type of action and is particularly important for a theory of collective action.

The main claim about the nature of actions I will endorse here is that instead of a causalist theory, we must adopt a constitutivist theory.<sup>84</sup> I think that the role intentions play in granting the status of action to an event has been overlooked by the literature. In order to motivate this particular discussion, pointing to where I take to be the problem, I start by challenging the intuitive discrimination between mere behavior, action and unintended action. Take Goldman's (1970) example of a guest tasting the soup of a sensible host. If the guest wants to offend the host, he could grimace while taking the soup. In this case, the grimacing will be an action as well as the offense, the consequence of the action. But if someone had sabotaged the soup, pouring some foul-tasting stuff in it and the guest cannot help grimacing, the standard way to interpret this second scenario is to say that the grimacing in virtue of the foul-tasting

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<sup>83</sup> Take Schlosser's (2006, p. 18-19) justification for addressing only basic actions throughout his defense of the Causal action theory: "In the following, though, I shall ignore all complications that arise in connection with the distinction between basic and non-basic actions. All statements concerning agent involving events, as the constituents or antecedents of actions, must be understood as being, strictly speaking, about the constituents and antecedents of basic actions. That is unproblematic for the following reason. We are interested in the phenomenon of agency—in particular, in human agency and the role of human agents in the performance or production of actions. The distinction between basic- and non-basic actions is uncontroversial. Further, it is generally assumed that non-basic actions can be defined recursively, on the basis of a definition of basic actions, by adding clauses concerning the generation of non-basic acts. Hence, to consider the relationship between agents and non-basic actions would complicate the issue without giving us any additional insight concerning the agent's role in the performance of action. We can therefore restrict our investigation to basic actions, and I shall continue to talk about agent-involving events as the antecedents and constituents of actions." I think the problem with this position is another version of the absent agent argument. Once again, the agent is lost in the chain of events. I think that the usual recursive definition of non-basic action on the basis of basic action offered in the standard framework of a Causal action theory cannot account for the appropriate relation the agent has with the non-basic action being ascribed to her.

<sup>84</sup> Not to confuse this claim about the nature of action with the constitutivist approach to agency whose main proponents are Korsgaard (2008, 2009) and Velleman (2000, 2009). Their constitutivism holds that claims of practical reason and morality can be derived from the features that are essential to being an agent. I will not advance any particular position in the field of ethics here.

stuff is just a behavior; it is not an action of the guest. However, it is quite plausible to assume that the host would be offended nonetheless. But, since this grimacing derived from a physiologic reaction to the foul-tasting stuff present in the soup was not an action, its consequences cannot be further actions either. So the guest did not offend the host, even if the host was offended because there is no action that could be related to the event of offending the host by level-generation. I agree with the interpretation so far for both cases previously presented.

The problem arises when we try to manage cases of unintended actions. The same scenario is set: a guest tasting the soup of a sensible host. But imagine now that the guest wants to make funny faces to the host's little son that is ashamedly trying to hide behind some curtains far from the table. The guest making funny faces is an action and, once again, the host is offended by this behavior. A liberal adoption of Chant's principle (2), the accordion effect, shall say that the guest offended the host, even if this was an unintentional action. I take this interpretation to overlook the role intentions should have in the constitution of an event as an action. It is to adopt an externalist view on the chain of events, disregarding the relation an agent must have to the event by means of an appropriate mental state, in order to this event to count as an action.

I do not deny that my position here is counterintuitive since it entails the restriction of unintentional action to few cases. However, we face a dilemma: we restrict the role of intentions to its relation to basic actions (as a causalist) or we embrace intentions as the distinctive feature of an action (as a constitutivist). I will argue for the second option and I think that the best way to do so is defending the *Simple view* of intentional action.

First, it should be noted that the Simple view seems compatible with both horns of the dilemma (and I think that who agrees with the Simple view will opt for the first horn when faced with this dilemma). The Simple view only states that: an agent A-ed intentionally only if the agent had the intention to A. It can be noted that this claim has no explicit commitment to the nature of actions. The Simple view just asserts that a particular relation between the bearer of an intention and an action might render this action intentional. It does not have anything to say about the status of an event as an action, just demands a condition (the existence of an intention directed to the particular action) in order for an action to gain the property of being intentional.

What is being proposed here is to employ the strategy adopted by the Simple view to structure an alternative account on the nature of actions. Instead of limiting the role an intention's content has on the identification of intentional actions, I propose that intentions

might be relevant to constitute an event as an action. The similarity between the Simple view and the constitutivist view might be captured in the following formulations:

*The simple view:* A is performed intentionally only if who performed A had the intention to A.

*The constitutivist view:* An event E is an action only if who brought about E had the event E as an element of her action-plan (intention).

#### 4.4.1 The Simple View

Enç (2003) offers a good defense of the Simple view where one of his main strategies is extending the scope of intention to the whole plan. We briefly saw this in his account of reasoning (section 4.2.2). According to Enç, when elaborating a plan to make funny faces, to explore the previous example, the agent can be able to foresee some consequences and can run the *what-if* scenarios in order to choose a course of action. Therefore, if she predicted that she could offend the host, but decided to make funny faces nonetheless, her action of offending the host is an intentional action. However, if the offended host has a heart attack due to the unrest induced by the offense, giving a heart attack to the host is not an intentional action of the guest, granted that she did not foresee this consequence in her plan. As Enç (2003, p. 210) puts it:

(...) the fact relative to which an act's being intentional is determined is a fact about the agent's mental states. The mental state in terms of which the Simple view should be formulated is the actual state of intending which has as its holistic content the whole act-tree. When we look at the way that the act-tree has been arrived at, we appreciate the role of undesirable side-effects in the deliberative process.

I think that many of our intuitions and even problems regarding intentional action can also be explained by the application of this approach of the Simple view. Take how this particular account can enlighten Knobe's cases, for instance. Knobe's research explores the *side effects* of someone's action. His most famous experiment consists of a pair of very similar cases. The only difference is that one of them has a harmful side effect while the other has a beneficial side effect. These are the two cases:

(A) The vice-president of a company went to the chairman of the board and said, 'we are thinking of starting a new program. It will help us increase profits, but it will also harm the environment.' The chairman of the board answered, 'I don't care at all about harming the environment. I just want to make as much profit as I can. Let's start the new program.' They started the new program. Sure enough, the environment was harmed.

(B) The vice-president of a company went to the chairman of the board and said, 'we are thinking of starting a new program. It will help us increase profits, but it will also help the environment.' The chairman of the board answered, 'I don't care at all about helping the environment. I just want to make as much profit as I can. Let's start the new program.' They started the new program. Sure enough, the environment was helped (KNOBE, 2003, p. 191).

These simple cases originated a lot of discussion in virtue of the responses Knobe got when he questioned people if those side effects were intentional actions. 82% of the respondents said that the harmful side effect was brought about intentionally, whereas 77% of the respondents reported that the beneficial side effect was not brought about intentionally. Taking Enç's proposal of enlarging the intention-plan we must say that both vice-presidents act intentionally. It seems that Knobe's experiment is capturing some other aspect that underlies these cases. The respondents might be confusing intentionality with responsibility.

Another similar case widely discussed in the literature is Harman's (1986) sniper. In this case, a sniper shoots an enemy soldier, knowing that this shoot will alert his foes to his position. Even accounting for this negative side effect, the sniper decides to shoot, considering that the gain is worth the cost. Harman thought that this case is a counter-example to the Simple view since the action of alerting his foes to his position performed by the sniper appears to be intentional despite of not being intended. Enç suggests that philosophers might be confusing intentionality with desirability. More specifically, he argues that the property of being intentional should not be essentially an explanatory role. We cannot explain the soldier shooting by referring to the consequence of alerting his foes to his position or explain the guest's funny faces with reference to the offense to the host. The crucial point for the ascription of intentionality to an action is a fact about the agent's mental states, that is, if the intention sustained by the agent had an explicit reference to the particular event under consideration. If the agent somehow predicts, expect, has knowledge of the consequence or assumes the risk of bringing this particular event about, then it constitutes an intentional action of his since this event will be represented in the agent's intention (action-plan).<sup>86</sup>

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<sup>86</sup> An alternative position for the problem on the intentionality of side effects was endorsed by Mele (2012). He argues that these examples defy our intuitions, indicating that there is something like *middling actions*, actions that are not performed intentionally nor non-intentionally. These would be actions that an agent does not aim to perform but are not performed unknowingly, inadvertently, or accidentally. In short, they encompass the standard circumstances that make an unintended outcome liable: recklessness and negligence. Wasserman (2011, p. 528) also tries to argue in favor of this new category of action in an ingenious way:

“(7) Bill broke the window intentionally.

(8) Bill did not break the window intentionally.

(9) Bill broke the window unintentionally.

The negation of (7) is equivalent to (8), which is consistent with both trying and foresight; but the denial of (7) communicates (9), which requires that the damages be accidental. In all of these cases, we unconsciously treat contraries like ‘happy’ and ‘unhappy’ like contradictories and equate the denial of one with the affirmation of the other. This kind of inference is perfectly natural. It might even be inductively strong. But the point to stress is that it is not logically sound. The distinguishing feature of contrary statements like (7) and (9) is that they cannot both be true, but they can both be false. The middle is not excluded, so one cannot deduce (9) from the denial of (7). To do so is to commit the Unintentional Fallacy.”

I take the extension on the content of the intention (*holistic view*, as Enç labels it) a better way to deal with those cases. This move coheres with the adopted assumption of intention as a plan.

#### 4.4.2 The Constitutivist View

The constitutivist view aims to take seriously the role of intention in the nature of actions. In order to offer a precise definition of action along these lines, I think we just should add Enç's position on the Simple view inside the causalist definition of action. The addition being proposed is that: "an act is intentional only if it falls within the whole package intended by the agent" (ENÇ, 2003, p. 211). This move aims to require a relation between the agent and an event she brought about, that is established by the agent's intention, in order for this particular event constitutes an action. Contrary to standard causalist view, this requirement will be extended to every event of the chain, not restricted to the basic action.

I follow Enç's (2003, p. 77) definition of action to conduct this reformulation:

- Causal Definition of Action (CDA)  
 A is a token act of S's if and only if:  
 (i) A is a token basic act of S's, OR  
 (ii) The \*result\* of A is generated by a token basic act of S's.

This definition makes explicit the tendency to give an exclusive treatment to basic actions in causalists accounts. In this simplified version, there is no mention of intentions. However, as seen in chapters 3 and 4, intentions have an important role in the production of basic actions; so, intention is hidden in features of condition (i) of this simplified version. Specifically, a basic action is a \*result\* caused by an intention which includes an explicit reference to bringing about that event. This intention appropriately triggers an agent's actional mechanisms that is able to bring about this particular intended \*result\*.

The constitutivist view is concerned to enlarge the intention's importance in discriminating actions throughout a chain of events. I take that the best way to do it is to rephrase (ii) with: (ii\*) The *intended* \*result\* of A is generated by a token basic act of S's. (ii\*) is motivated by the idea that in order for some \*result\* to be an action, it is not enough to be level-generated by a basic action of the agent, this \*result\* must as well be intended. The \*result\* must figure in an agent's plan in order for it be considered an action. The constitutivist view points for the insufficiency of the causalist view since the agent must have an appropriate relation to every event he brought about in order for this event to be considered an action. This appropriate relation cannot be established just by level-generation. Intentions must figure as a constitutive element of every element in a chain of events in order to this element constitute an action.

Going back to the guest's example, the first step is to adopt a broader view of intention-plan, going beyond the desired end and the efficient means to reach it. We need to describe

action cases taking into consideration the whole plan maintained by the agent, a plan that incorporates undesired, but foreseeable, consequences. In other words, we must take into account every element that figured in the agent's process of practical reasoning. If the guest can foresee, when engaged in her deliberation of whether make funny faces to the shy boy, that she might offend the host, then this consequence of her action is another action. However, if she cannot account for this consequence in her practical reasoning, due to ignorance of the host's sensitivity or unawareness of the host's attention to her behavior or whatever other reason, the consequence of the host being offended will not figure in the guest's plan. Since the event of the host being offended is not related to the agent by an appropriate mental state, that is, it does not figure in her action plan, this consequence cannot be regarded as her action. The agent fails to be appropriately related to the event due to the absence of this specific event in the agent's action plan; therefore, this event cannot count as an action.

This is exactly the same structure of the approach to the Simple view offered by Eng (2003). However, instead of limiting the role of intention in the discrimination of intentional action, the constitutivist view aims to enlarge this role, assuming that intentions should be relevant to the identification of actions, i.e. intentions should be regarded as necessary components of an event that counts as an action.

The development of the constitutivist view through the adoption of a stricter version of the Simple view might generate some problems. Take Mele and Moser's (1994, p. 52-53) example:

Sarah, a typical six-year-old child, turns on her Atari computer to bring her favorite tic-tac-toe game to the screen, with just a flip of the switch. Sarah knows that the computer is set up to display this game whenever turned on, and she knows how to play this game with considerable skill; but she knows nothing more about the workings of the computer. She neither knows, believes, expects, nor has evidence concerning anything about such things as the computer's electronic circuitry digital processor, random-access memory, or, more generally, the electronic way in which her flipping the on/off switch will bring her favorite game to the screen. She nonetheless flips the switch and brings her favorite game to the screen.

Mele and Moser are discussing intentional action and not the nature of action. They think that Sarah's case is a good counter-example for a theory that demands some sort of knowledge, belief, evidence or expectation about the way someone performs an intended action (not quite an argument against the Simple view, as we shall see). The point is that the causal chain of Sarah's bringing her favorite game to the screen involves many details that Sarah does not know. Those details are relevant for Sarah's goal of bringing her favorite game to the screen but they do not figure on Sarah's plan to achieve it. Mele and Moser assert that the absence of

these events on Sarah's plan should not preclude her to bring about her favorite game to the screen intentionally.

This conclusion should also be endorsed by a proponent of the Simple view. In Enç's comprehensive conception of plan, for instance, those detailed electronic events will not be present, so they cannot configure intentional actions. However, the Simple view just demands that in order for some action being intentional, it must figure in the agent's plan. There is no demand on how precise must be the way planned by the agent to attain her goals. There is no need for the agent to elaborate a plan that matches exactly with the chain of events involved in her actions.<sup>87</sup> Analyzing the detailed chain of events, a proponent of the Simple view will just point out that some of those events were intentional actions and others were not. There might be no problem in granting that Sarah's flipping the on/off switch is an intentional action, the event of filling and emptying the memory's capacitor with electrons is not an intentional action, and Sarah's bringing about her favorite game to the screen turns out to be another intentional action. A rupture in the sequence of intentional actions does not seem to be a problem.

However, things get a little more awkward when the constitutivist view is taken into the analysis of Sarah's case. If Sarah has no knowledge of the precise chain of events she will produce, given the constitutivist account, she has not done those things that were absent from her plan. This is a very counterintuitive consequence of this approach. Especially if you consider that Sarah will have knowledge of inserting the cartridge, flipping the switch and bringing her game to the screen, and realize that relevant events, occurring between the events she is aware of, will not constitute actions of her. Now the picture will be that Sarah's flipping the on/off switch is an action; the event of filling and emptying the memory's capacitor with electrons is not Sarah's action, just a consequence of her action; and the consequence of this

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<sup>87</sup> However, Enç (2003) argues that a deviant causal chain cannot be present; deviant chains precludes the intentionality of an intended action. The main element for the identification of deviation is chance, that is, the occurrence of lucky events might render an intended action not intentional. The usual causal chain deviation argument against the Causal action theory places the lucky event before the agent starts her action. The formation of the intention does not trigger actional mechanisms, before that happens, the very formation process, deliberation or consideration of the action's outcome cause some other psychological state that has as involuntary consequence a bodily movement that will cause the intended \*result\* (recall Davidson's example of the climber who plans to get rid of the extra weight by loosening the rope that is holding another man, he got nervous and ended up loosening the rope due to his nervousness and not as a consequence of his intention). However, in other cases, the lucky events might take place between the agent's behavior and the intended \*result\*, like in Betty's killing Jughead example: "Suppose that Betty kills Jughead, and she does so with the intention of killing him. And yet suppose also that her intention is realized only by a wholly unexpected accident. The bullet she fires misses Jughead by a mile, but it dislodges a tree branch above his head and releases a swarm of hornets that attack him and sting him until he dies" (SHPALL; WILSON, 2012). I think Betty's case is significantly different from Sarah's case. In Sarah's case, she ignores the causal chain, whereas in Betty's case it seems that she had a sort of expectation of how the causal chain is established that was frustrated. For instance, Betty seems to expect to shoot Jughead, but no bullet ends up hitting him, therefore there are some events expected for Betty that did not occur. Sarah ignores some events of the chain; however every event predicted by her actually occurred.

event, Sarah's bringing about her favorite game to the screen, will constitute an action again. A rupture in the sequence of actions seems less plausible than a rupture in the sequence of intentional actions.

I think that the best way to defend this point is to appeal to the transitivity of causation.<sup>88</sup> Take this chain of events: (i) flipping of the on/off switch; (ii) filling and emptying of the memory's capacitor with electrons; (iii) the screen showing the game. (i) causes (ii) that causes (iii). If causation is transitive, it is true that (i) causes (iii). Taking the transitivity of causation as true, it is not wrong to say that the way Sarah brought about her favorite game on the screen was by means of her flipping the on/off switch. Transitivity of causation frees an agent to have a fully detailed account of the chains of events where her actions are located.

However, I take that the main counterintuitive consequence of the constitutivist view to be the shortening on the class of unintentional action. It should be noted that the constitutivist agrees with at least one kind of event that people tend to identify as unintentional action. This particular kind of case is derived from the possibility of an intended \*result\* having different descriptions.<sup>89</sup> Well-known cases are Oedipus unintentionally marrying his mother when he intended to marry Jocasta, or Davidson's unintentionally spilling the coffee of his cup when he intended to spill the tea of his cup. This kind of case configures instances of unintended actions even in the constitutivist view since the agent in both cases intended this result, but in her plan, this result had another description.<sup>90</sup> The intuitive kind of unintentional action excluded from the constitutivist view is Davidson's alerting the burglar when he just intended to turn on the

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<sup>88</sup> Transitivity of causation is not an unproblematic assumption. Hall (2000) offers a counter-example for it. Suppose that a big rock is rolling down a hill in the direction of someone going uphill. This person ducks in order to escape the danger. This crouching action results in this person's survival. The rock rolling causes the person's crouching that causes the person's survival. If transitivity is true, it would entail that the rock rolling causes the person's survival. This conclusion seems implausible. I bite the bullet here and argue that there is an illegitimate demand that causation be explanatory. Even if it does not seem right to state that the rolling rock causes the person's survival, there is no problem in causation here; it is just a very uninformative depiction of this segment of a causal chain (SCHAFFER, 2016).

<sup>89</sup> Here I depart from Goldman's account of action individuation. For cases like this, I also think that he took a too fine-grained position. At least Goldman (1970, p.13) also recognizes that this is a big problem and he is biting the bullet: "The most serious problem facing the synonymy test concerns relational properties. Consider the property of hitting the tallest man in the room and the property of hitting the wealthiest man in the room. Suppose that the tallest man in the room is the wealthiest man in the room. Are these properties the same or different? If we employ the synonymy test in this case, we shall obtain the result that the properties are different ['the wealthiest man in the room' is not a synonymy for 'the tallest man in the room', it just happen that they refer to the same object]. And then we shall obtain the further result that John's act of hitting the tallest man in the room (at t) is different from John's act of hitting the wealthiest man in the room (at t). Such a result surely appears unwelcome."

<sup>90</sup> Davidson's spilling coffee instead of tea is a rather delicate example since the event of spilling the tea did not occur, so it is false that they are the same event with different descriptions. However, I still think that this kind of case will amount to an unintentional action in virtue of the fact that both events could be redescribed by the same less informative sentence: spill the liquid inside the cup. It seems to me that the actual event is somewhat present in the agent's plan.

lights of his room, for instance. This latter kind of case presents consequences of actions that do not amount to further actions. The constitutivist view entails the denial of the Accordion Effect, establishing a distinction between consequences of an action and further actions in a chain of events.

What I think is at stake in the unintentional action cases compatible with the constitutivist view is another version of Kripke's (1979) belief puzzle. The same elements are present. We have an entity that is independent of the mind of an agent or believer. This entity is an event in action cases and a proposition in the believer case. And those elements can have many descriptions. Oedipus was intending to marry Jocasta, but the event of marrying Jocasta was the same as marrying his mother, even if he did not know that. The same kind of problem seems to occur to a believer if she believes that "Cicero was bald" and also believes that "Tully was not bald", without knowing that Cicero and Tully were the same person.

For action cases the consequence is the occurrence of an action that will be intentional under some descriptions (those possessed by the agent in his plan that, by being present in his plan, render this particular event an action) and unintentional under others (descriptions of the event where particular objects might be represented by terms the agent ignore). For belief cases, the consequence is that the subject will hold a true belief and a false belief about the same proposition due to the failure to recognize that different terms refer to the same object, that is, a failure to recognize that those beliefs refer to the same proposition. In both cases, there is an *intensional* problem, that is, they are referentially opaque, resulting in these situations where coextensive expressions are not substitutable.

#### **4.4.3 Constitutivist View in Aggregate Action: addressing collective action**

In order for this constitutivist view to work in collective action cases, the first important observation to make is that there must be a collective intention. There must be a plan ascribable to the collective entity. In the previous section, I argued for the formation of a collective attitude via aggregation function that seems to present some inflationary elements, that is, it is dependent but not reduced to individual attitudes. Since a definition of collective action in a constitutivist vein should also stress the role of intention in the very constitution of an event as an action, an eliminativist approach to collective intention will entail the inexistence of collective action.

I propose the following definition for collective action:

*Collective Action definition:* An event is a collective action if and only if it was a collective entity's intended \*result\* generated by the basic action(s) of (an) individual member(s) of the collective entity performed because of a collective intention.<sup>91</sup>

This definition contemplates the two core elements of the nature of actions that I was addressing along this work, namely, basic action and intention. As seen in chapter 3, basic action presents on collective action must be executed by an individual member of this collective entity. Of course, not every action performed by a member of a collective entity will be or generate a collective action. When a concertmaster travels to his parents' house, this will not be a collective action and will not generate any collective action either. When the concertmaster drives to the concert house, there is no collective action or generation of collective action. However, when she performs her part in the orchestra's practicing or live performance, her action will be part of an aggregate action performed by the orchestra, that is, her action will be part of the generating actions needed for the aggregate action of performing the piece instantiated by the orchestra.

The orchestra example is rather interesting because it is possible to say that the score represents the collective intention, at least we should expect the collective intention to be very similar to what the score says. The score contains a very precise division of labor for the orchestra's performance. Every instrumental group's contribution is specified (first violin, second violin, viola, cello, oboes, bass, tubas etc.), so musicians know what to execute at every given time of the performance. And even if there is some solo in the performance, where there is only one musician playing, it will not be wrong to ascribe the solo performance to the orchestra, since the collective intention planned that this specific segment would be performed by only one of its members. In this case, there is no aggregate effect. This might support the claim that collective actions are not identical to aggregate effects. They are intended \*results\*, that is, events figured in the collective entity's intention, events that the collective entity planned to bring about, and these events might be aggregate effects or not.

Let me stress the point that aggregate effect does not constitute a collective action. When two persons are dining in the same place at the same place, this is not sufficient for a collective action. It is true that they are dining and that their action occurs in the same place and at the same time, however this is far from a collective action of dining together. In the more far-fetched example, take the accidental aggregate effect of two different classes of a singing school

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<sup>91</sup> "Because" here means that the collective intention figure as the reason to deconditionalize the individual member's conditional intention, as suggested in section 4.3.4.

starting to sing the same song at the same time. This event cannot amount to a collective action either. The constitutivist view demands that there must be an intention whose bearer is the agent and whose content refers to the particular event.

We could adjust this example in order for it to be a collective action. For instance, the school could plan to have two singing classes at that day. If this was the school's plan, the occurrence of two different classes starting to sing the same song at the same time would satisfy it. Note, however, that the satisfaction of the planning would not depend on the coincidence in the song and the time nor the accidental consequence of an apparent duet performance. This reformulation is important in order to highlight that when there is an aggregate effect, it can be of a mere summative kind. In this case, if the first class occurred at 9 a.m. and the second one at 4 p.m. they would also satisfy the school's plan of having two singing classes at that day, a mere summative kind of *\*result\**. There is no need for a collective action to be restricted to some sort of emergent event, that is, an event that exhibits properties that are not found in the events that constitute it. A singing school having two singing classes in a day is not an emergent event, whereas the accidental coincidence of two students singing the same song at the same time might result in an accidental duet. A duet is emergent, since its constituents are not duets. However, if the participants of the accidental duet did not intend to bring the duet about, the duet is not an action of them, just an accidental emergent effect of their individual actions of singing a song.

The requirements of the constitutivist view make more precise when there is a case of aggregate action. As presented in chapter 2, Goldman's position on this kind of action seems to be a mereological one. Goldman (1970) stresses that he does not consider aggregation to be a generation relation. In this sense, the any aggregate effect could count as an action, since the only criterion is mereology. If someone drinks 200mL of coffee in the breakfast, 400mL of orange juice along the morning, 500mL of water in the lunch, 400mL of ice tea in the afternoon, and 500mL of water in the dinner, she totally drunk 2L of liquids in the day. Should this be an aggregate action? It is not hard to grant that each intake of liquid at each moment was intended and, therefore, constitutes a proper action. But the mere fact that the ingestion of 200mL+400mL+500mL+400mL+500mL, which results in 2L, cannot imply that the agent performed an action of drinking 2L of liquid in a day. This seems to be a mere consequence and not a proper action.

However, imagine that this individual is doing a strict diet and has to limit his liquid ingestion to 2L per day. Imagine further that she plans to satisfy this condition of her diet by drinking 200mL of coffee in the breakfast, 400mL of orange juice along the morning, 500mL

of water in the lunch, 400mL of ice tea in the afternoon, and 500mL of water in the dinner. Now, in this second scenario, it seems that there is a proper action of drinking 2L in a day. What is the difference between this scenario and the first one? The important distinction is that in the second scenario there is an intention explicitly containing the action of drinking 2L in a day.<sup>92</sup>

Adopting the constitutivist view opens the possibility that aggregate actions are also created by level-generation. Since an intention that represents the aggregate effect must figure as a necessary element in order to this \*result\* to constitute an action, aggregate actions will be a special case of Goldman's simple generation. Recall, for instance, the example of performing the action of hiding when someone crouches behind a car with the intention of preventing oneself from being seen. This is a very interesting case due to the role played by intention here. Imagine that the same crouching action occurs and, as consequence of this movement and the location of both the car and another person, this last person cannot see the crouching agent. Does it count as an action of hiding if the agent was just picking up a nickel on the ground, without any intention to get out of the other's sight? What the constitutivist view claims is that the intuition that a proper action of hiding should be intentional must be generalized to every action. Getting out of someone's sight is just a happening; a consequence of other action. Hiding is to be out of sight when the agent is appropriately related to this happening, that is, when she has a plan that explicitly figures this particular circumstance.

Goldman (1970, p. 27) points to a possible neglect in the exact role intentions might play in level-generation theory: "It might be claimed that an agent's intentions, motives, beliefs, etc. are a sufficiently distinctive class of circumstances to warrant a separate species of level-generation entirely, on a par with the four others I have mentioned." But even this warning does not manage to capture the importance of intention being suggested by the constitutivist view. More than just eliciting simple generation, intentions are the elements that confer the status of action to events. Therefore, intentions make possible every kind of level-generation, not only the simple generation ones. In the constitutivist view, level-generation should account for the explanation of the kind of relation actions maintain with each other, but the status of action should be conferred by the intention, and this status assignment has conceptual priority.

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<sup>92</sup> This is also the criterion adopted by Enç (2003, p.95) in regard to aggregate actions (see condition (iii)): "Final Version of the Causal Definition of Action (CDA)

A is a token act of S's if and only if:

- (i) A is a token basic act of S's, or
- (ii) the \* result\* of A is generated by (the \* result\* of) a token basic act of S's, or
- (iii) A is an aggregate of several distinct token acts, each of which is either a token basic act or is generated by (the \* result\* of) a token basic act of S's, and the aggregate is represented in some act plan of S's."

With the simple addition of the constitutivist view, I think that Goldman's framework might be able to spell out the ontological structure for both individual and collective action. Adopting the constitutivist view already demands a reformation on the conception of basic action proposed by Goldman. As discussed in Chapter 3, Goldman follows Danto's proposal that the class of basic actions is exhaustively constituted of bodily movements' action types. I argued against this view, endorsing the position that basic action is the event brought about by an agent that was explicitly referred by the intention responsible for triggering her actional mechanisms.

This account of basic action is totally compatible with the constitutivist view, since the possession of this know-how, that is, the ability someone's actional mechanisms have to bring about the event explicitly intended, marks the conclusion of a practical reasoning. Practical reasoning should deliver the action-plan, that is, the whole content of the intention and, when the agent arrives at one event that she knows how to bring about, there is no more need to further planning. Bodily movements are not often addressed in practical reasoning. In order for someone to wave to a friend or tie a lace, she does not need to plan on raising her arm, moving her wrist, moving her fingers in such and such a way. Therefore, these events do not constitute actions in the constitutivist view; this is exactly the same conclusion I derived from the discussion on the concept of basic action.

In collective action cases, we saw that basic action has a reductionist nature, that is, every basic action is performed by an individual. However, the possibility of double ascription might allow a basic action to be ascribable to a collective entity. Adopting the constitutivist view, all that matters is the content of the intention. If the planning procedure of a collective entity is so detailed that it encompasses even the basic actions performed by the individual member, then the double ascription might be applied even for basic actions. Take the soloist example already discussed. A trained musician might be able to perform a basic action of following the score. Her know-how to play the instrument might be good enough that she does not need to form detailed intentions to put the fingertip in this particular place of the fingerboard or to move the bow in such and such a way. This trained musician can quite directly perform the action of playing a solo. We also assumed that the score might represent the content of the orchestra's intention. If this particular segment of the piece, the solo, is intended by the orchestra, and is performed directly by the musician, having the orchestra's intention as a reason to do so, then this is a case of a double ascription of a basic action for both the soloist and the orchestra. It is equally true to claim that the soloist executed the solo and that the orchestra performed the solo.

Things would be different if the soloist was not a skillful musician. If some beginners' orchestra was performing the same piece, the score would be the same and we might accept the collective entity's intention to be the same. However, a novice violinist might not execute his part as a basic action. She needs to pay attention to the position of her fingers on the fingerboard. In order to execute her part properly, she needs to insert the particular event of "placing my index finger in the E position of the D string". This particular intention might generate a basic action with the result of "placing her index finger in the E position of the D string". However, this particular action is not contemplated in the collective intention. There is no reference of specific fingers' positioning in the score, just the resulting event of an E sound by the violin. Therefore, in this case, the basic action is not subject to double ascription, since it cannot be a collective action because this particular event was not present in the collective entity's intention.

With this final proposal, we can go back to Chant's cases. In the constitutivist view, both Two Bad Boys Scouts and Two Good Boys Scouts would not figure as instantiations of collective actions. The constitutivist view demands that the agent of an action be adequately related to the *\*result\** of this action. This condition can only be satisfied if the intention of the agent makes explicit reference to this particular *\*result\**. Chant's two cases do not even figure a proper collective entity. She is concerned with aggregate outcomes of individual actions. Causing pollution or littering the street are very straightforward examples of this kind of phenomena. In the constitutivist view, aggregate outcomes do not directly count as collective actions. These cases do not present a proper agent and these events are not adequately related to the participating individual agents by means of an intention.

## 5 CONCLUSION

In this work, I advanced the proposal of a theoretical framework to spell out the ontological structure of collective action. Chapter 2 provided primary assumptions for this enterprise. I started from intuitions that motivate the standard position on the philosophy of action, the Causal action theory. The central assumption is that actions are a kind of event. The distinctiveness of action compared to other events is that action is an agent-involved event where this agent is related to the event through mental states. These mental states seem to cause and explain the event fitting in the action category. Therefore, there are two central concepts for the nature of actions: (i) events and (ii) causation. Chapter 2 also presents the problem of action individuation and its application on collective action by Chant (2006, 2007) and Schweikard (2011). A particular answer to the problem of action individuation seems to be very fruitful for a project aiming to depict the ontological structure of action. Goldman's (1970) fine-grained approach to action individuation provides the theoretical tool of level-generation to explain some specific relations actions maintain with each other. Besides that, only philosophers sympathetic to a more fine-grained approach addressed the problem of aggregate actions, that is, the problem of how one action can be composed of others actions. This particular problem should concern anyone dealing with collective actions, since the most usual kind of collective action is joint action, the action that depends on more than one individual contribution in order to take place. In the discussion of the applications of the concept of level-generation to collective action already present in the literature some questions left open motivated the development of my own proposal along Chapters 3 and 4.

Chapter 3 addressed the concept of basic action. Following Goldman, I assumed that the ontological structure of action takes a foundationalist architecture. In the base of every act-tree, there is a basic action, that is, every action is a basic action or springs from a basic action. In my exploration of this concept, I discussed three different kinds of regress that motivate the postulation of a basic element in a chain of actions. Then I proceed to discuss the explanation of the basicness that render an event an action. Most philosophers tend to regard the class of basic actions composed exclusively of bodily movements' actions. I argued for a less externalist criterion, where the first person point of view, the agent perspective, should determine the particular element on a chain of events that count as the basic action. The central idea is to take seriously the intuition that a basic action is something that the agent can perform directly. I followed Enç's (2003) account of basic action as know-how, where a basic action is the event explicitly referred in the intention that triggers the actional mechanisms of the agent. Then, I

tried to apply this concept of basic action to collective action cases. The failure of those attempts suggested that basic action is an element of collective actions with reductive characteristics. This conclusion supports the claim that collective action is dependent on individual action. Since basic actions are always individual contributions and every act-tree starts with a basic action, every collective action is based on individual actions.

Chapter 4 explored the nature of intentions via a functionalist approach, emphasizing the role intentions play in action. I endorsed the view that the content of an intention is a plan and presented planning (practical reasoning and coordination), executive and guidance aspects of intention. Since basic actions have a reductive characteristic, the executive feature of collective action must also be carried out by the individual members of the collective entity due to the relation this particular feature has with the actional mechanisms of the agent's body. However, I argued that the planning aspect of collective action might exhibit a non-reductionist nature. Following List and Pettit's (2011) proposal of the aggregation function, I presented plausible cases of plan formation where the collective entity endorses a plan that is not possessed by anyone of its members. This kind of outcome from the aggregation function led List and Pettit to argue for an autonomous reasoning of the collective entity. Employing this conclusion to action, I suggested that collective entities are capable of performing an autonomous practical reasoning process achieving an intention (action-plan) that is not upheld by any of its members and can be used to form a distinctive and genuine collective intention through an intention aggregation. In order to connect the basic action reductionist element with the intention-plan of the collective entity that has an inflationary characteristic, I argued that collective intention plays the role of a reason for the individual agent to perform her part, through the deconditionalization of the conditional intentions, which are also the inputs for the intention aggregation.

At the end of Chapter 4, I advanced a constitutivist view on the nature of actions that contrasts with the causalist view from where I started. The same move on the basic action discussion was taken. I proposed a less externalist take on the nature of further actions, that is, those actions level-generated by the basic ones. Once again, I took the first person point of view, the agent perspective, as the right criterion to determine whether a particular element in a chain of events should count as an action or not. The strategy consists in adopting a stricter version of the *Simple view*, tying not only intentional action but the very status of action to an explicit reference to the particular event in the action-plan possessed by the agent. Finally, I discussed how the constitutivist view could be a good criterion for the identification of aggregate actions. With this small addition, that is, a privileged place of intention in the

discrimination of which events count as actions, it seems that Goldman's overall proposal might be successful in spelling out the ontological structure of both individual and collective actions.

I would also like to point out some remaining issues and problems. In Chapter 2, I left the discussion on the nature of collective entities incomplete. I did not provide a comprehensive account on the nature of social reality and did not present a definitive description of how collective entities are composed. Much more work should be done in order to provide a complete explanation of these elements. Also related to social ontology, in Chapter 4, the group mind and group reasoning characterizations are not extensive enough. I did not address the important feature of motivation that should take place in the individuals' conditional intentions. I think that this should be properly explained by a theory of joint commitment such as offered by Gilbert (2013). The aggregation function adopted in Chapter 4 seems to be very restrictive; many works on social cognition tend to identify a deliberative rather than aggregative structure for social phenomena. This deliberation structure conceives a greater weight in individual participation throughout the formation process of a collective attitude, where the relevant role of the social might be captured by the interrelation of individuals rather than a distinguished emergent outcome. However, it seems to be the most usual method for collective attitudes formation.

In Chapter 3, I did not discuss one important alternative to basic actions, namely, act of will or volition. Actually, no discussion on mental acts was done throughout this work, since my main concern was to deal with overt actions, that is, actions that have causal consequences beyond someone's body. Related to this, it should be noted that I did not address the mind/body problem. The widely used claim that intentions can trigger actional mechanisms is not adequately answered anywhere in the present work, that is, there is no explanation of how a mental state is capable of producing some physical effects (the movement of someone's body). I also did not take any part in discussions on moral responsibility nor on free will. Those are very important questions regarding collective entities: for which acts should a collective entity takes responsibility? Should the collective entity or its member be held responsible for harmful consequences? Does a collective entity have free will? Is the free will of a collective entity derivative from the free will of its members? Etc.

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