



Joint Abilities: A Relational Approach

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Abstract

Moral and political philosophy as well as public discourse is rife with talk about joint abilities: we are able to mitigate climate change, alleviate world poverty, or end a pandemic through social distancing and high vaccination rates. However, despite its common usage, the concept of joint ability has received surprisingly little attention in the philosophical literature. What exactly does it mean to say that we can or cannot do something *together*? According to the dominant conception of joint ability, a joint ability is best understood as the ability of a plurality of agents. I argue that plural property accounts of joint ability violate one of the central tenets of the metaphysics of abilities, namely that abilities relate agents to actions. I offer an alternative analysis of joint abilities. I propose to understand joint abilities as relations in which two (or more) agents stand to each other. The relational model offers a way of understanding our talk about joint abilities in moral and political debates, and it does so while preserving a conceptual continuity between individual and joint abilities.

Keywords Joint abilities · Joint actions · Joint duties · Plural properties · Relations · Ought-impliescan

1 Introduction

We are able to carry the table across the room, but I am not. I lack the strength to move it on my own. We might have the ability to dance a *pas de deux*, but I do not, because dancing a *pas de deux* is by definition an action that requires two dancers. Moral and political philosophy as well as public discourse is rife with talk about such

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joint abilities: We are able to mitigate climate change, alleviate world poverty, or end a pandemic through social distancing and high vaccination rates.

However, despite its common usage, the concept of joint ability has received surprisingly little attention in the philosophical literature. This is especially surprising given its importance for the ascription of so-called collective or joint moral duties. It seems that just as *I* cannot be morally required to run 100 m in 9.58 s because *I* am unable to do so, *we* cannot be morally required to end world poverty if we happen to lack the ability to do so. ‘Ought’ is widely agreed to imply ‘can’ (OIC): If an agent at a given time has a moral duty to do something, then the agent at that time has both the ability and the opportunity to do that thing (Vranas, 2007, p. 171).¹ Just as individual moral duties presuppose individual ability, joint moral duties seem to presuppose joint abilities. But what exactly does it mean to say that we can or cannot do something *together*? This paper offers an analysis of the concept of joint abilities. It thereby aims to lay the necessary groundwork for future work on the ascriptions of joint ability in moral and political practice.

The paper is divided into five parts. The first part distinguishes cases of joint ability from other related phenomena. In the second part of the paper, I will then introduce and critically discuss the dominant understanding of joint ability in the current literature: the notion of joint ability as a plural property. I argue that a conception of joint ability as a plural property violates one of the central tenets of the metaphysics of abilities, namely that abilities relate agents to actions. Plural property accounts of joint ability thereby fail to secure a conceptual continuity between individual and joint abilities. The third part of the paper offers an alternative route. I argue that joint abilities are best understood as relations in which two (or more) agents stand to each other. The fourth part of the paper highlights the advantages of a relational account of joint abilities. In the fifth, and final part, I will then address possible objections to the proposal put forward in this paper.

2 The Phenomenon of Joint Ability and Other Phenomena

In order to get closer to the phenomenon of joint ability it is helpful to distinguish joint ability cases from four other types of cases: cases of shared ability, group abilities, joint necessity cases and so-called mere ‘flukes’.

Let me take first the most simple and uncontroversial case of shared abilities. It is widely agreed that a joint ability is not merely a shared ability. You and I might share the ability to crochet in the sense of having this ability in common, but it is difficult to imagine a case where crocheting would constitute the manifestation of a joint ability. Perhaps a joint ability to crochet might manifest itself in a joint action of me holding the yarn between my fingers and you doing the crochet stitches. What is important,

¹ Similar formulations of this principle can be found in most contributions to the debate about joint action and moral duties (Held, 1970, p. 474; Schwenkenbecher, 2013, p. 318; Collins, 2013, p. 239; Killoren & Williams, 2013, p. 298; Goodin, 2012; May, 1990). Even though there is a long-standing and controversial debate about the details and justification of the principle, common-sense morality as well as most moral philosophers rely on some version of OIC (Marcel van Ackeren and Michael Kühler, 2015; Copp, 2008; Frankfurt, 1969; Horty, 2003; Sinnott-Armstrong, 1984; Stern, 2004; Streumer, 2007).

however, is that the ability to perform such an action would be very different from your and my shared ability to crochet.

Second, joint abilities are distinct from group abilities, understood as the abilities of a group agent, such as Amazon's ability to improve its working conditions (Miller, 2020, p. 200). Even though some authors treat every group that is capable of joint action as a group agent (Killoren & Williams, 2013; Tännsjö, 1989; Copp 2016; Aas, 2015) most distinguish between joint agency and group agency (Pettit & Schwenkenbecher, 2006; Bratman, 2014). A group of individuals can act jointly without creating a separate group agent, and vice versa. For example, it would be odd to say that two individuals who go for a walk together thereby form a group agent who goes for a walk. Conversely, the members of a group can be unable to act jointly, but the group itself might be structured in ways which make it appropriate to treat it as a separate agent. For example, it is widely agreed that joint action presupposes common knowledge among the participating agents regarding each other's relevant intentions and beliefs. Some accounts of joint intention even assume that each agent must have the ability accurately to pick out the other participants and identify them as her partner (Bratman, 2014, p. 41).² It is reasonable to assume that these conditions are not fulfilled in larger groups such as trade unions, global business corporations or national states. However, such groups are structured in ways that, according to a number of authors, make it plausible to treat them as group agents with beliefs and intentions of their own (French, 1984; List & Pettit, 2011). This does not mean that group agency excludes the possibility of joint agency. Group agents themselves might be able to act jointly with other group agents, even if their individual members are unable to do so; think, for example, of the European Union or more loosely structured international associations such as the 1990–1991 Gulf War coalition (Erskine, 2014). Groups that constitute group agents will also usually be composed of various smaller subgroups whose individual members are capable of joint action. This notwithstanding, a group agent's abilities are individual abilities held individually by an agent, albeit a collective one. Such group abilities are not at issue here.³

Third, and more controversially, joint ability cases are not identical with so-called joint necessity cases.⁴ Joint necessity cases are cases in which it takes at least two agents to perform a certain action or achieve a certain outcome. No one individual agent can perform the action or achieve the outcome on their own. Joint necessity can be either analytic or circumstantial (Schwenkenbecher, 2021, p. 8). If joint necessity is analytic an agent's inability to perform the action on her own is due to the very nature of the action in question. For example, I cannot get married or dance a *pas*

² One of the very few authors who argues for a relatively straightforward continuity between the joint actions of small groups and the joint agency of larger groups is Margaret Gilbert. Gilbert accepts the common knowledge condition, but nevertheless believes that even very large groups such as national states are capable of joint action (Gilbert, 2006).

³ This notwithstanding, abilities of group agents can be relevant for so-called iterated joint abilities, which I discuss in Sect. 5 of this paper. One way in which a group can have an iterated ability to do something together is by constituting a collective agent which can do that thing. I would like to thank an anonymous reviewer for clarifying this point.

⁴ I adopt the term from Holly Lawford-Smith (Lawford-Smith, 2012, p. 460; Schwenkenbecher, 2021, p. 8).

de deux on my own. Getting married and dancing a *pas de deux* are actions that by definition require two agents. Such actions are by definition *joint* actions and, as such, necessarily something which we are only *jointly* able to achieve. In cases of circumstantial joint necessity, the need for joint action is contingent on individual agents' physical, psychological and epistemic abilities; or rather the lack thereof. For example, you might lack the necessary strength to move a heavy table on your own. Some authors implicitly or explicitly assume that joint abilities are restricted to joint necessity cases. Seumas Miller explicitly restricts the use of the term 'joint ability' to actions "that cannot be performed by the exercise of an individual ability possessed by the individual(s) in question" (Miller, 2020, p. 201).

However, despite its initial intuitive appeal, we should resist such a restriction of the concept of joint ability to joint necessity cases. Imagine two agents, Adam and Bertrand, carrying a heavy table across a room together. According to Miller, their joint action is the manifestation of a joint ability *only if* neither Adam nor Bertrand could carry the table on their own. Now imagine that Adam and Bertrand sometimes *do* have the individual ability to carry the table across a room, but only if Adam had a good night's sleep and Bertrand enjoyed a substantive breakfast. On Miller's account, their joint action of carrying the table would manifest a joint ability on days where they did not sleep or eat well and a mere sum of individual abilities on days where Adam happened to sleep well and Bertrand ate a substantive breakfast. That seems implausible. Whether or not a plurality of agents possesses a joint ability to perform a certain type of action should not depend on whether or not any of the agents happen to also be individually able to perform that action.

Moreover, while joint necessity cases take centre stage in debates about collective moral duties, they are not the only cases which are of moral interest. Even in cases where agents would be able to perform a certain action on their own, the joint action might be the morally preferable option. For example, even if Clare is individually able to keep a homeless shelter in her neighbourhood running by donating most of her monthly income, it would arguably be morally preferable if a plurality of agents exercised their joint ability to support the shelter and thus shared the burden of helping those in need more fairly. A definition of joint ability as an ability to achieve an end which individual agents are unable to achieve on their own thus fails to do full justice to the phenomenon of joint ability.

Fourth, and finally, an account of joint ability should allow us to distinguish cases of joint ability from cases where a collective outcome is the result of a mere fluke. The distinction between abilities and mere flukes is well established in debates about individual abilities (Austin, 1956; Kenny, 1975; Southwood & Wiens, 2016). Suppose Daniel is a hopeless darts player who can barely hit the board, but who, one day, throws a dart and by sheer luck hits the bull's eye. Daniel is unable to repeat this performance because he does not have the ability to hit the bull's eye (Kenny, 1975, p. 136; Schwarz, 2020, pp. 16–17). Analogously, the fact that a plurality of agents has actually achieved a certain collective outcome should not be taken as proof that it had the ability to produce that outcome. (Joint) success does not imply (joint) ability, because it might be a mere 'fluky success'. This does not mean that success is necessarily irrelevant for ability. The claim here is merely that success does not imply ability. Stephanie Collins gives the example of a group of fifty philosophy-conference

delegates playing darts. They should count as being unable to produce the outcome ‘each member hitting the bull’s eye when playing darts tonight’, even if each member was—by fluke—to hit the bull’s eye (Collins, 2019, p. 73).

However, what if we significantly increase the number of unskilled darts players and look at the collective outcome of ‘hitting the bull’s eye’ at least once through their uncoordinated clumsy attempts of throwing darts? Although each individual darts player is just as hopeless at playing darts as Daniel in the initial individual case, they collectively have a much higher chance of achieving the outcome of hitting the bull’s eye at least once. Given a certain group size, and hence numerous attempts of throwing the dart, the group’s chance of achieving the collective outcome of hitting the bull’s eye will approach certainty. Thus, while *individually* each agent’s success in hitting the bull’s eye would be a very unlikely and fluky success, *collectively* the group can robustly secure the outcome of hitting the bull’s eye at least once. Does this mean that they have the joint ability to hit the bull’s eye? Although intuitions tend to get less clear the higher the probability with which a group can produce a certain outcome, we should resist the temptation to equate high collective probability with joint ability. This is not to say that (collective) statistical probability is irrelevant for (joint) ability. The claim here is merely that high (collective) statistical probability does not imply (joint) ability. The same holds true in the individual case: if Elena, an individual lottery player, were to live forever— and hence play an infinite number of times— her chances of winning the jackpot at least once would approach certainty, but that does not mean that she possesses the individual ability to select the right numbers.⁵

To summarise, the phenomenon of joint ability is distinct from cases of shared ability and group abilities. Joint ability cases are also not co-extensive with joint necessity cases or cases where a plurality of agents has a high probability of achieving a certain outcome. After having thus distinguished the phenomenon of joint ability from neighbouring phenomena, I will now look at the prevalent conception of joint abilities in the current literature.

3 Joint Abilities as Plural Properties??

Defenders of irreducible joint moral duties have been particularly invested in the notion of joint ability. This is not surprising because if duties imply ‘oughts’ and ‘ought’ implies ‘can’ irreducible joint duties presuppose irreducible joint abilities. Irreducible joint duties are neither duties of group agents nor individual duties (Pinkert, 2014, p. 189). Instead, they are defined as duties which the members of a group hold together, and which can only be discharged by them acting together

⁵ The case of Daniel, the individual hopeless darts player, is slightly less clear. For, if given an infinite life with infinite opportunities of playing darts, it is hard to imagine how he could stay hopeless at playing darts. Instead, it seems reasonable to assume that by throwing darts again and again over the course of an infinite life, he will eventually acquire some ability of hitting the bull’s eye. However, this does not undermine the distinction between probability and ability. It merely shows that some outcomes can change from being a fluky success to being the result of an acquired ability, while others— such as winning the lottery by selecting the right numbers— cannot.

(Björnsson, 2014; Pinkert, 2014; Schwenkenbecher, 2013, 2014, 2018, 2021). While joint duties will give rise to individual duties to contribute to the joint action, they are meant to be “more basic, or logically prior” to the corresponding individual duties (Schwenkenbecher, 2014, p. 64). Joint duties cannot be individual duties because they cannot be fulfilled by individuals acting on their own. But if there is no ‘ought’ without a ‘can’, where does the ‘can’ necessary for joint duties come from? Anne Schwenkenbecher, one of the main defenders of irreducibly joint duties, tries to answer this question by introducing a collective version of OIC:

Plurality-of-agents capacity principle: For a plurality of— individual or group—agents ‘ought’ implies ‘can’ means that if agents jointly ought to do x , this implies that they jointly can do x , and if they cannot jointly do x then they need not jointly do x . (Schwenkenbecher, 2014, p. 63)

According to Schwenkenbecher, joint duties are compatible with OIC because they are compatible with her plurality-of-agents capacity principle. Schwenkenbecher holds that OIC is satisfied if agents *can jointly* discharge their joint duty. The ‘can’ necessary for joint duties is thus supposed to rest neither with individual agents nor with the group understood as a group agent, but with a plurality of agents. In a similar vein, Bill Wringe talks about the “can of plural agency” (Wringe, 2020, p. 1528). And Felix Pinkert defends his account of joint duties by introducing the concept of a non-distributive joint ability (Pinkert, 2014; Björnsson, 2014, p. 117). Thus, according to these authors we should think of the bearers of joint abilities as pluralities of agents. Joint abilities are thought of as plural properties. In what follows, I will argue that the central difficulty with conceiving of joint ability as the ability of a plurality of agents is that it breaks with the canonical notion of abilities as properties of agents which these agents can choose to exercise.

Abilities can be understood as a subset of the vast and diverse set of potentialities inherent in things and agents (Vetter, 2015). They are distinguished from other potentialities by their subject and their object. In contrast to the potentialities inherent in things, abilities are properties of agents and agents only. Abilities have agents as their subjects. Moreover, in contrast to passive potentialities of agents, such as the power to understand a language or to stand in the way, abilities such as the ability to speak a language or to step in someone’s way have actions as their objects. Abilities thus have agents as their subjects and actions as their objects (Maier, 2021).⁶

A ‘plurality of agents’ is not itself an agent. It therefore seems that a plurality of agents can do something only in the sense in which smoking can cause cancer, public investments can lead to economic growth or in which gentrification can increase

⁶ Some authors distinguish between agentive and non-agentive abilities. Romy Jaster, for example, argues that abilities are a matter of success across a sufficient portion of modal space. According to Jaster, a subject S has an agentive ability if and only if S ϕ s in a sufficient proportion of the relevant possible situations in which S intends to ϕ . S has a non-agentive ability if and only if S ϕ s in a sufficient proportion of the relevant possible situations in which some S -trigger for ϕ -ing is present, where an S -trigger is a trigger for ϕ -ing, in response to which ϕ -ing is a success (Jaster, 2020). Debates about moral duties in collective contexts, and OIC more generally, are clearly concerned with agentive ability. I will therefore bracket the possibility of non-agentive ability for the purpose of this paper.

homelessness. That is, a plurality of agents can do something in the sense that it is possible for them to achieve a certain outcome, but it cannot do something in the sense of having the requisite ability. Pluralities of agents possess potentialities, but not abilities.⁷ However, at this point defenders of a plural property approach to joint ability might interject and insist that on their account abilities *do* have agents as their subject, namely *several* agents. According to this line of thought, accusing plural property accounts of ascribing abilities to non-agents is indicative of a misguided notion of plural predication. Plural predications, so the objection goes, should not be understood as attributing a property of some sort to one single entity.⁸ That is, a plurality of agents should not be understood as a single thing which is not an agent. Instead, plural predication should be understood as predicating something of *several* entities (Oliver & Smiley, 2016). According to a charitable reading of the plural property approach to joint ability, joint abilities are thus best viewed not as relating one non-agential thing to an action, but as relating several agents to an action.⁹

Given this non-reductive notion of plural predication, the question now becomes whether the plural property approach can do justice to the canonical notion of abilities as properties of agents not only in letter but also in spirit. I will argue that it does not. While we should not expect joint abilities to be exactly the same as individual abilities, an account of joint ability has to do more than posit a difference between abilities and non-agentive potentialities. It has to explain it. In particular, an account of joint ability has to capture the nature of abilities as powers of agents which these agents can choose to exercise. According to the canonical understanding of abilities as something that relates agents to actions, the notion of ability is intimately linked to the notion of agential control: having an ability implies the ability to choose to exercise that ability.¹⁰ The ‘can’ in classical formulations of OIC refers to this notion of ability: if an agent morally ought to do something this implies that performing that action is within the agent’s control.¹¹ Since plural property accounts understand joint ability as something which several agents possess in an irreducibly joint way, they encounter serious difficulties when trying to capture the notion of agential control. The reason lies in the lack of unified agency, and hence the lack of volitional control, of pluralities of agents. If at all, pluralities of agents can only choose *jointly* whether to exercise their joint abilities. What is at issue here is not the phenomenon of joint

⁷ In a similar vein Zofia Stemplowska argues that the ability to act “depends on there being an intentional agent, single or collective, who can perform the action in question” (Stemplowska, 2016, p. 289). And Holly Lawford-Smith points out that “there is nothing that [unorganised groups] ought to do, because there is nothing that they could do” (Lawford-Smith, 2015, p. 243).

⁸ Alex Oliver and Timothy Smiley label and reject this strategy to deal with plural predicates as ‘singularism’ (Oliver & Smiley, 2016).

⁹ I am very grateful to an anonymous reviewer for pressing me on this point.

¹⁰ Collins denies this link between abilities and agential control. On her account large non-agentive groups possess abilities, but they cannot bear obligations. Obligations presuppose decision-making capacities while abilities do not (Collins, 2022). This is in conflict with a notion of abilities as powers of agents which these agents can choose to exercise (Steward, 2020).

¹¹ As Marcel van Ackeren and Michael Kühler point out, the ‘can’ in OIC is usually interpreted as subjective possibility, which, in turn is analysed in terms of an agent’s opportunity and ability. An agent “is taken to have the ability to do something if it is in her power to do it intentionally” (van Ackeren and Kühler, 2016, p. 9).

agential control itself: since we clearly possess numerous joint abilities, we must also somehow possess the agential control to exercise these abilities. What is needed is an account that explains how agential control is possible in cases of joint abilities. A relational approach to joint abilities offers such an explanation, or so I shall argue later. By contrast, to say that *joint* ability implies *joint* control is at best uninformative and at worst circular. Establishing joint control requires joint action and joint action presupposes joint ability.¹² Ascribing agential control irreducibly jointly to several agents does not explain how agents can share something which is usually the property of individual agents.¹³

Proponents of the plural property approach to joint ability are also prepared to depart from the canonical notion of abilities when it comes to the object of abilities. While abilities are commonly understood as something that relates agents to actions, both Collins' and Schwenkenbecher's definition of joint ability shift the focus from abilities to perform certain *actions* to abilities to produce certain *outcomes*.¹⁴ Collins offers the following definition of joint abilities:

A non-agentive group has the ability to produce outcome *X* just in case each member has the ability to perform behaviours that are a part of a pattern of behaviours across the group that will robustly secure *X*. (Collins, 2022, p. 10)

¹² Equally, it is not enough for defenders the plural property approach to point to the possibility of understanding joint control as the result of a joint deliberation. Joint deliberation is a form of joint action, and joint action presupposes joint ability, which, in turn, presupposes joint control. I am grateful to an anonymous reviewer for raising this possibility.

¹³ The challenge here resembles the one which David Velleman identifies for theories of joint intentions, namely to explain how agents can share the control necessary for joint intentions (Velleman, 1997). As in the case of joint abilities, what is at issue in debates about joint intentionality is not the phenomenon itself: we undeniably often do act jointly. What is needed is an account of how agential control is possible in cases of joint action. In this context it is worth noting that proponents of a plural property approach to joint ability cannot simply avail themselves of analyses of joint control existing in the literature on joint action. Individualistic accounts of joint control over joint actions, such as those brought forward by David Velleman or Michael Bratman, do not fit well with the notion of joint ability as something which several agents possess in an irreducibly joint way (see Velleman, 1997; Bratman, 2014). Instead, they support individualistic accounts of joint ability such as the relational approach defended in Sect. 3 of this paper.

¹⁴ Although this shift from actions to outcomes is not a necessary component of a plural property conception of joint ability, it is present in all existing accounts of joint abilities as plural properties. Pinkert, for example, offers the following definition of joint ability:

"Agents *aa* are at *t1* **jointly able** to Φn at *tn* if and only if.

(A) there is exactly one salient collective pattern of actions of the relevant members of *aa* that constitutes *aa* Φn -ing at *tn*, and which is such that every relevant member of *aa* believes of the action which is her part in that pattern that she needs to perform this action if *aa* is to Φn at *tn*, or (B) there is a joint action $\Phi 1$ such that.

1. there is exactly one salient collective pattern of actions of the relevant members of *aa* that constitutes *aa* $\Phi 1$ -ing at *t1*, and which is such that every relevant agent believes of the action which is her part in that pattern that she needs to perform this action if *aa* is to $\Phi 1$ at *t1*, and.

2. *aa* performing $\Phi 1$ at *t1* makes it the case that *aa* are at *t2* > *t1* jointly able to Φn at *tn*, and 3. the relevant members of *aa* believe at *t1* that *aa* performing $\Phi 1$ at *t1* has this effect, and that if *aa* is to perform Φn at *tn*, they will perform $\Phi 1$ at *t1*." (Pinkert, 2014, p. 200).

Thus, for a plurality of agents to possess a joint ability the individual agents within that plurality have to possess certain individual abilities and, if exercised, these individual abilities have to result in a pattern of behaviour that non-accidentally secures the collective outcome in question. Similarly, Schwenkenbecher, offers the following definition of joint ability:

Two agents a and b have joint ability to do x if a has individual ability to do x_a and b has individual ability to do x_b where x_a and x_b produce x , both actions are compossible, and a and b are in principle capable of intentionally combining them. (Schwenkenbecher, 2021, p. 54)

Collective outcomes do not require collective action. To use a standard example, a plurality of agents' individual actions of walking across the lawn will eventually produce the collective outcome of a worn path without any joint intention, and hence any joint action, to that effect. What motivates this shift away from joint actions to collective outcomes more broadly construed is a desire to account for a broader range of important collective moral problems. Anthropogenic climate change, for example, is not the result of jointly intended actions. What is more, it is extremely difficult, if not impossible, for all of humanity to form a joint intention, and hence to perform a joint action, to combat climate change. A focus on pluralities of agents' potentiality to produce certain outcomes promises to avoid this problem. In this context Schwenkenbecher discusses the example of a plurality of consumers' alleged ability to force a meat farm out of business. In the example Schwenkenbecher describes, the meat farm has to close down because a chain of unplanned events—some of the customers fall sick, some have to travel, some are gifted produce from alternative sources—leads customers to ordering less than they usually would (Schwenkenbecher, 2021, p. 57).¹⁵ According to Schwenkenbecher, the fact that the customers did not intentionally make the farm go out of business is no argument against their joint ability to do so (Schwenkenbecher, 2021, p. 57). As long as the consumers are at least *in principle* capable to intentionally combine their individual actions, they possess the relevant joint ability, or so the argument.

This shift from joint actions to collective outcomes is problematic for at least two reasons. First, as mentioned above, it departs significantly from the standard conception of abilities as something that has actions as its object. Second, the more the action criterion is relaxed, the more difficult it becomes to distinguish cases of joint ability, such as the ability to dance a *pas de deux*, from other cases of joint potentiality, such as a plurality of agents' potentiality to increase a room's CO₂-levels by exhaling. A conception of joint ability should preserve and explain this difference. This is especially important in order to distinguish cases of joint ability from mere 'flukes'. In the second part of this paper, I sketched the case of a large group of unskilled darts players who, due to their sheer number and thus the number of uncoordinated attempts at throwing darts, have the joint potentiality to hit the bull's eye. I argued that such

¹⁵ The example has been first introduced by Lawford-Smith to argue against the idea that unstructured groups can be jointly able (and hence jointly obligated) to produce certain outcomes (Lawford-Smith, 2015, pp. 234–235.)

fluky— albeit statistically robust— results should not count as manifestations of a joint ability. However, since the unskilled darts players might at least in principle be able to intentionally combine their individual clumsy attempt of throwing darts, and since their collective success is statistically robust, both Schwenkenbecher and Collins are forced to view them as being jointly able to hit the bull's eye.¹⁶

Given these significant departures from the canonical understanding of abilities as powers of agents which these agents can choose to exercise through actions, it is worth looking for an alternative. Doing so is important regardless of whether one believes in irreducibly joint duties or not. The concept of joint abilities plays an undeniably central role in everyday life and, intuitively, activities such as dancing a *pas de deux* seem to manifest abilities rather than agency-unrelated potentialities: dancing a *pas de deux* is something that agents do, not objects. In what follows, I aim to offer a way of understanding our talk about joint abilities in everyday life as well as moral and political debates; and I aim to do so without violating central tenets of the metaphysics of (individual) abilities.

4 Joint Abilities as Relations

As pointed out earlier, abilities are a subset of the general class of potentialities. Joint abilities are a form of joint potentiality (Vetter, 2015, p. 105). Following Barbara Vetter's account of the metaphysics of potentialities, we can distinguish between joint potentialities as plural properties and joint potentialities as a relation between the possessors of the relevant potentiality (Vetter, 2015, p. 108).¹⁷ Examples of relational properties include being married to, fighting with, or dancing a *pas de deux* with someone. As discussed in the previous section, according to the dominant understanding in the current literature joint abilities are understood as plural properties.

In contrast to plural properties, relations are ordered. For example, if Flora is married to Giselle, she stands to Giselle in the relation of being-married-to-Giselle; while Giselle stands to her in the relation of being-married-to-Flora (Vetter, 2015, p. 109). Vetter points out a second difference between relations and plural properties, namely adicity: the same plural property can be borne by any number of suitable subjects, but the same relation can hold only between a fixed number of things (Vetter, 2015, p. 109). Take the example of Hanno and Jane dancing a *pas de deux*. As Vetter explains, Hanno and Jane can share the plural property of dancing ballet with the ballet dancers of the Royal Opera; it does not matter that there are just two of Hanno and Jane while there are many more of the Royal Opera dancers. By contrast, relations come with a fixed number of places: Hanno and Jane cannot stand in the same relation to each other as do, say, Karl, Lisa, and Mat: Hanno and Jane's relation of dancing a *pas de*

¹⁶ Collins argues that her analysis excludes examples that could happen only by fluke because the group members' behaviour does not robustly secure the relevant outcome in those cases (Collins, 2022, p. 12). However, in the case of a large group of unskilled darts players the outcome is statistically robust. Collins analysis is thus unable to exclude such cases.

¹⁷ According to Vetter, we can think both of joint potentialities themselves and of their manifestation as a relation (Vetter, 2015).

deux is two-place relation, while Karl, Lisa, and Mat would have to stand in a three-place relation (Vetter, 2015, p. 109).

I propose the following conception of joint abilities:

Joint ability is a relation in which two or more agents stand. “Being able to do x (where x is a joint action) with agent(s) a_{1+n} ” is an individual ability had by each of the individual agents who stand to each other in this relation.

To say that joint ability is a relation between two or more agents is not to say that all relational abilities are joint abilities. For example, Nat’s ability to operate on Oscar is a relational ability, but not a joint ability. As defined above, joint ability is a type of potentiality that belongs to all of the potentiality’s possessors as agents. Thus, in contrast to Nat’s ability to operate on Oscar, if Paul and Quentin stand in a relation of joint ability to lift the piano, then Paul possesses the relational property of being able to lift the piano with Quentin, and Quentin possesses the relational property of being able to lift the piano with Paul.

Moreover, not all joint potentialities which belong to all of a potentiality’s possessors are joint abilities. Consider a plurality of agents whose individual and uncoordinated actions of walking across a lawn produce the collective outcome of a worn path. This plurality of agents possesses the joint potentiality— but not the joint ability—to damage the lawn. Joint abilities differ from other joint potentialities in having joint actions as their object. I thus propose to restrict the notion of joint ability to cases where exercising the ability implies the performance of a joint action. There are various competing theories of joint action which lay down different necessary and sufficient conditions for joint intentions, and hence joint action. Whether we think that two or more agents stand in a relation of joint ability to each other will thus depend heavily on our preferred theory of joint action. I will not take sides in the debate about joint intentionality here. However, most authors agree that joint action presupposes some form of shared goal or plan as well as a mutual belief of, and responsiveness to, other individuals’ intentions to contribute to that goal or plan. Depending on the details of the respective theory of joint action, this allows for the possibility of joint action of even large groups of agents (Shapiro, 2014). But restricting the object of joint ability to joint action nevertheless excludes various collectively produced outcomes from the realm of joint ability. I will come back to this class of collective outcomes in the fifth part of this paper.

Joint abilities are grounded in individual *intrinsic* abilities, and they give rise to individual *extrinsic* abilities. For example, Hanno’s ability to dance a *pas de deux* with certain types of agents is an individual intrinsic ability which— in combination with Jane’s individual intrinsic ability to dance a *pas de deux* with certain types of agents— gives rise to Jane’s and Hanno’s joint ability to dance a *pas de deux* together. This joint ability gives rise to Hanno’s individual extrinsic ability to dance a *pas de deux* with Jane and Jane’s individual extrinsic ability to dance a *pas de deux* with Hanno.

Both the intrinsic and the extrinsic individual abilities in question have joint actions as their objects. Moreover, both are relational. The difference between the relevant intrinsic and the extrinsic individual abilities lies in whether all of the relata are speci-

fied. In contrast to the *extrinsic* abilities in question, the relevant *intrinsic* abilities only refer to my individual ability to stand in the relation of joint ability with certain *types* of agents. For example, Hanno might possess the intrinsic relational ability to dance a *pas de deux* with someone *like* Jane, that is, dancers of a certain height, weight and other relevant qualities. But he might lack the extrinsic relational ability to dance a *pas de deux* with Jane, because, say, Jane has broken her leg. Hanno's possession of the intrinsic relational property "being able to dance a *pas de deux* with certain types of dancers" is independent of there actually being a dancing partner.

Individual *extrinsic* relational abilities such as Hanno's ability to dance a *pas de deux* with Jane are what Miller calls "conditional" abilities.¹⁸ Individual *extrinsic* relational abilities are conditional on other agents' abilities and their willingness to exercise these abilities. Other agents' abilities and their willingness to exercise these abilities are thus necessary conditions for the possession of the extrinsic individual relational property "Being able to do x (where x is a joint action) with agent(s) a_{l+n} ". The possession of individual *intrinsic* relational abilities is not conditional on other agents and their respective abilities, but exercising these abilities is. Whenever we exercise an intrinsic relational ability to stand in a relation of joint ability with someone, we also exercise a matching extrinsic ability.

The distinction between specified and unspecified relata applies to the category of joint potentiality more broadly. As Vetter points out, we can distinguish between a key's potentiality to open a particular door d and the key's potentiality to open doors with a lock of shape SI . The latter type of potentiality is independent even of there being any door with a lock of shape SI . It is an individual *intrinsic* relational potentiality. By contrast, the key's potentiality to open a particular door d is an individual *extrinsic* relational potentiality (Vetter, 2015, p. 124).

At this point the widely accepted distinction between general and specific abilities proves helpful (Honoré, 1964; Mele, 2002). Roughly speaking, general abilities are abilities which we can ascribe to an agent even if that agent is not in a position to exercise that ability in a particular situation. By way of example, consider the standard individual ability of riding a bike. I possess the know-how, and hence the general ability, to ride a bike even if I happen to be unable to exercise this ability at a given moment because of a broken leg or the lack of a bike. By contrast, specific abilities depend on an agent's particular circumstances. For example, my specific ability to ride a bike depends, among other things, on my being non-disabled and having a bike at my disposal.

Extrinsic individual abilities are specific abilities which depend on a subclass of an agent's circumstances, namely other agents' abilities and their willingness to exercise these abilities. Hanno's ability to dance a *pas de deux* with Jane, for example, is a specific ability. By contrast, Hanno's intrinsic individual ability to dance a *pas de deux* with certain types of dancers is part of his general abilities.

¹⁸ Miller explicitly distinguishes conditional abilities from joint abilities and argues that joint abilities are not conditional abilities (Miller, 2020, p. 201). However, if what I have said here is right, joint abilities are a subcategory of conditional abilities in the sense that extrinsic relational abilities are conditional on other agents' abilities and their willingness to exercise these abilities.

5 Advantages

What is gained by understanding joint abilities as relational rather than joint properties? In what follows I will highlight four advantages of a relational approach to joint ability.

First, and most importantly, the relational approach does justice to the intuition that abilities have agents as their subjects. It thereby retains one of the central tenets of the metaphysics of abilities, namely that abilities relate agents to actions. And it does so not only in letters, but also in spirit. The relational model defines joint ability as a relation in which two or more agents stand, each of which possesses the individual property of standing in the relation of joint ability with the relevant other agents.

Second, a relational understanding of joint abilities helps to retain the intuition that abilities are powers of agents which these agents can choose to exercise. Like the manifestation of all specific abilities, the manifestation of individual extrinsic abilities is dependent on an agent's circumstances, namely on whether sufficiently many other agents successfully exercise their respective abilities. Once these conditional circumstances are in place, an agent has full agential control over whether her individual extrinsic ability of "to do x (where x is a joint action) with agent(s) a_{I+n} " is manifested. The relational model of joint ability thereby accomplishes two seemingly conflicting objectives. On the one hand, it ensures that specific joint abilities behave analogously to standard individual specific abilities when it comes to agential control. On the other hand, it accounts for a distinctive feature of the phenomenon of joint ability, namely that it is outside each individual's control whether other agents contribute to joint action, and hence whether the relation of joint ability manifests itself. A relational model of joint ability accounts for this lack of control over other agents' abilities and actions by pointing out that the possession of the extrinsic individual relational property "Being able to do x (where x is a joint action) with agent(s) a_{I+n} " is conditional on other agents' willingness to exercise their respective abilities.

The third advantage of a relational understanding of joint ability is that it offers a way of distinguishing cases of joint ability from mere 'flukes'. On the model proposed here, not any successful production of a collective outcome counts as the manifestation of a joint ability. Rather, a collective outcome has to fulfil two criteria in order to count as the manifestation of a joint ability: first, the outcome has to be the manifestation of a relation in which two or more agents stand and, second, it has to be the result of a joint *action*. This excludes cases like the darts example discussed in part two of this paper from the category of joint ability. A large group of unskilled darts players do not have the joint ability to hit the bull's eye even if they have a very high probability of producing that outcome due to the size of the group, and hence the number of attempts at throwing the dart. They lack this ability because the outcome of "hitting the bull's eye" is the result of a statistical probability rather than a joint action. Moreover, the joint potentiality of hitting the bull's eye is a potentiality of the respective plurality of agents and not a relational property had by each of the individual agents.

Fourth, and finally, the fact that relations are ordered and hold between a fixed number of things facilitates a more fine-grained analysis of joint abilities than a plural property approach. As I pointed out earlier, while the same plural property can be

borne by any number of suitable subjects, relations are ordered and hold between a fixed number of things. This is especially important when it comes to questions of moral and political responsibility. The relational account avoids vague, and unhelpful, talk of “our” abilities to, say, alleviate world poverty or mitigate climate change. Instead, it asks us to specify which individual agents have which relational properties with regard to which other agents. The relational model of joint ability thereby puts the spotlight on individual agents and their individual moral and political responsibilities.

6 Possible Objections

In the remainder of this paper, I will address three potential objections against the relational notion of joint ability. This will help to further specify the model of joint abilities outlined above.

The first and arguably most obvious objection against the relational model is that it seems to fail to account for a large number of morally significant cases. We can call this the extensional objection: due to its narrow focus on joint actions, the proposed model excludes cases in which a collective outcome is the result of an accumulation of individual actions rather than joint action. This concerns some of most pressing collective action problems such climate change and world poverty. It seems that ‘we’—that is, relative well-off individuals in industrial countries—cannot be said to have the joint ability to combat climate change or world poverty, because we are not the kind of group which can perform joint actions. Moreover, if ‘we’ are unable to combat climate change or world poverty because we are unable to perform the requisite joint actions, there also seems to be no moral duty to do so.¹⁹

In answering the extensional objection, it is important to distinguish between the conceptual and the moral concern expressed above. Let me start with the latter. To say that ‘we’—understood as the plurality of relative well-off agents in industrial countries—do not have the ability and hence no duty to mitigate climate change or world poverty is not to say that there are no moral duties in the vicinity. This paper does not aim to provide an account of moral duties in collective contexts, but plausible candidates might include duties of group agents such as states and corporations, as well as individual duties to do what is within one’s power to mitigate the respective problems. What is important here is that there are other potential bearers of moral duties besides pluralities of agents. To exclude pluralities of agents as bearers of moral duties thus does not mean that we are left with a void of moral responsibility.

The second concern expressed by the extensional objection is a conceptual one. We clearly speak about ‘our’ ability to mitigate climate change, alleviate world poverty, or end a pandemic. It thus would seem to be a serious conceptual shortcoming of the relational model if it had to classify all such statements as nonsensical. There

¹⁹ It is worth noting that there are influential accounts which hold that individual moral duties to do what is in one’s power can do all the work here (see e.g. Collins, 2013; Lawford-Smith, 2015). These authors can afford to ignore the extensional objection. I would like to thank an anonymous reviewer for clarifying this point.

are different strategies to address this concern. To begin with, it worth emphasising again the ambiguity of the term ‘can’ between agentive ability and potentiality in a much wider sense. Large groups of individuals can manifest all sorts of potentialities, but only some groups are such that their members’ stand in a relation of joint ability to each other. On closer inspection talk about what ‘we’ can do might often refer to non-agentive potentialities rather than abilities. In many cases these non-agentive potentialities will be related to agents’ individual abilities. For example, a large, uncoordinated group of unskilled darts players’ potentiality to hit the bull’s eye is related to the group members’ individual ability to clumsily throw darts and the statistical effects of many such attempts.

Moreover, talk about large pluralities of agents’ abilities to perform certain actions might implicitly refer to iterated abilities (Vetter, 2015, p. 135). An iterated ability is an ability to create another ability. Abilities can iterate within agents as well as from agent to agent. An example for an *intrapersonal* iterated ability is my iterated ability to recite Schiller’s ‘Song of the Bell’. I do not have the ability to recite this poem now, but I possess the ability to learn it. Vetter offers the following example for an *interpersonal* iterated ability: A violin teacher possesses the ability to teach students how to play the violin. The manifestation of this ability consists in another individual acquiring an ability, namely the ability to play the piano (Vetter, 2015, p. 138). As Vetter points out, there is no limit on the number of iterations. By repeated iteration an agent may have abilities that concern agents far removed from herself (Vetter, 2015, p. 137). Talk about joint abilities in cases where joint action is impossible for the agents in question can in some cases be understood as referring to such iterated abilities. For example, the group of relative well-off agents in industrial countries cannot act jointly to mitigate climate change, but there are various joint actions which subsets of these agents are able to perform in order to transform the group into a group agent who could then act to mitigate climate change. In this case there would be *interpersonal* iterated joint abilities of various individual agents whose manifestation is an individual ability of a collective agent.

A second potential objection which might be levelled against the relational model of joint ability is that a relational approach leads to an undesirable proliferation of abilities. There are endless joint actions which we could perform with other agents and hence endless joint abilities which we possess. There are even more iterated joint abilities. A relational model of joint abilities bestows on us an infinite number of finely individuated abilities, most of which we will never think about. However, while a relational notion of joint ability might expand our portfolio of abilities, it is worth noting that this portfolio is already vast to begin with. Most contemporary theories of abilities employ a relatively fine-grained individuation of abilities. My ability to ride a bike, for example, includes the ability to balance, to pedal, steer, to brake, to cycle uphill and downhill, to ride different kinds of bikes, and so on. The phenomenon of infinitely large ability portfolios is thus not peculiar to a relational model of joint ability.

Moreover, assigning agents all these abilities is not itself a problem. Not all abilities are of practical, let alone, moral significance. It therefore does not matter that most of our abilities do not figure in our practical deliberation. This is especially true for joint abilities understood as relational properties had by individual agents. I

argued that the manifestation of these abilities is conditional on other agents' abilities and their exercise of these abilities. Since an agent can only exercise her ability to do x (where x is a joint action) if sufficiently many other agents exercise their respective abilities, her ability has practical import only if these conditions are in place or can be reasonably expected to be achievable.

However, one might object that a relational approach to joint ability creates not simply too many abilities, but also individuates them too finely.²⁰ As I have pointed out earlier, the fact that relations are ordered, and hold between a fixed number of things, facilitates a more fine-grained analysis of joint abilities than a plural property approach. I have argued that this is an important advantage of a relational approach to joint ability. But one might worry that it leads to implausible conclusions. If joint ability is to be understood as a relation in which two or more agents stand, and given that relations come with a fixed number of places, does this mean that group of 99 individuals cannot have the same joint ability that a group of 100 individuals has, even if the hundredth individual is utterly ineffective? That would be implausible. Luckily, the relational account of joint ability does not have this implication. A group of 99 individuals and a group of 100 individuals cannot have the exact set of joint abilities in common, but, in most cases, it is likely that there will be a significant overlap between the two sets of joint abilities. Thus, a group of 99 individuals and group of 100 individuals can have the same type of joint ability, and among all the other abilities which they have, this joint ability might be the only one which is of practical relevance in a certain situation. However, in other situation the different sets of joint abilities of the two groups of individuals might be practically relevant. It is, therefore, an advantage to be able to provide a fine-grained analysis of joint abilities, if necessary. The same holds true for standard individual abilities. When it comes to playing the piano, for example, there will be a significant overlap between two pianists' individual abilities. However, at the same time there will be circumstances in which it makes a practical difference that one of the pianists possess the ability to play Mily Balakirev's *Islamey* well, while the other does not.

A third and final point I would like to address is that a relational approach to joint abilities does not accomplish what proponents of irreducibly joint duties need it to accomplish, namely to ground an irreducibly collective version of OIC. To recap, proponents of irreducibly joint duties need a collective version of OIC because joint duties are defined as being held by a plurality of agents. The 'can' implied by the 'ought' of irreducibly joint duties is supposed to rest neither with individual agents nor with the group understood as a group agent, but with a plurality of agents. The relational model of joint ability does not support an irreducibly collective version of OIC because it defines joint abilities as a relation between individual agents. Accordingly, our moral duties in the relevant cases will have to be reducible to individual duties. Such reductive accounts of joint moral duties are available (Miller, 2006; Collins, 2019; reference omitted for review). What is important here is that as long as one accepts that metaphysics can impose constraints on moral theory, and not the other way around, the impossibility of irreducibly joint moral duties should not count against the relational model of joint ability. And even if one were to adopt a 'moral-

²⁰ I am very grateful to an anonymous reviewer for pressing me on this point.

ity first' approach, it would remain to be shown that irreducibly joint duties– and hence a plural property account of joint ability– is our only viable option. A theory which successfully accounts for our moral duties in collective contexts and is also in accordance with the central tenets of the metaphysics of abilities, would clearly be preferable.

7 Conclusion

According to the dominant conception of joint ability, joint ability is best understood as the ability of a plurality of agents. This plural property account of joint ability breaks with the canonical concept of abilities as properties if not in letter than at least in spirit. It thereby also fails to capture the notion of control relevant for the widely accepted principle that 'ought' implies 'can'. However, joint potentialities can manifest themselves not only as plural properties, but also as relations between the possessors of the potentialities. Building on this distinction, I proposed to understand joint ability as a relation in which two or more agents stand. "Being able to do x (where x is a joint action) with agent(s) a_{I+n} " is an individual ability had by each of the individual agents who stand to each other in this relation. This relational model preserves a conceptual continuity between individual and joint abilities. It offers a way of understanding our talk about joint abilities in moral and political debates, and it does so without violating the central tenets of the metaphysics of (individual) abilities. What the relational model does not, however, is to shift the subject of the relevant abilities from individuals to collectives. Joint abilities are relations between two or more agents, but they are grounded in *individual* intrinsic abilities and they give rise to *individual* extrinsic abilities. I suggest that from a moral perspective this is a welcome result. It puts the spotlight on individual agents and their individual moral responsibilities. Although I can only exercise my ability to act jointly with others if sufficiently many other agents exercise their respective abilities, the first step is nevertheless to think about what *I* can do.

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