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Abstract: A number of writers have thought that the difference between a thing's being intentionally jointly done, and its being unintentionally jointly done, is explicable by some intention(s), had by the relevant agents, that they do that thing. I accept the hypothesis (with some qualifications) but note that it may be understood in a number of ways. It could require that the agents intend, severally, that they do the thing in question, or that they intend, jointly, that they do that thing. I give reasons for excluding both determinations of the hypothesis. I draw attention to a third determination that requires that, jointly, the agents intend that they do the thing in question. The requirement is weaker than that of the agents' intending jointly, as it does not require that a state of intention is jointly borne by them. I then consider various ways in which the requirement might be met. The only one that I consider satisfactory makes novel use of notions of participation and of doing a thing jointly with others. A corollary is that either intentions are not attitudes towards propositions, or propositions are individuated more finely than is often assumed.

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Playing one's part

ABSTRACT – A number of writers have thought that the difference between a thing's being intentionally jointly done, and its being unintentionally jointly done, is explicable by some *intention(s)*, had by the relevant agents, that they do that thing. I accept the hypothesis (with some qualifications) but note that it may be understood in a number of ways. It could require that the agents intend, *severally*, that they do the thing in question, or that they intend, *jointly*, that they do that thing. I give reasons for excluding both determinations of the hypothesis. I draw attention to a third determination that requires that, *jointly*, the agents intend that they do the thing in question. The requirement is weaker than that of the agents' intending *jointly*, as it does not require that a state of intention is jointly borne by them. I then consider various ways in which the requirement might be met. The only one that I consider satisfactory makes novel use of notions of *participation* and of doing a thing *jointly with others*. A corollary is that either intentions are not attitudes towards propositions, or propositions are individuated more finely than is often assumed.

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Introduction

Stan and Ollie decide, jointly, to carry a piano, and execute this decision jointly. Plausibly, their piano-carrying is thereby *intentional*, and explained by some *intention(s)* of theirs. But what exactly is it that they intend? On the face of it, there are two options. Either they *jointly* intend that they carry the piano, or they *severally* intend that they carry the piano. The first option may seem to entail the existence of a mental state with multiple subjects, which, in turn, may seem to commit us to the existence of a "group mind" modified by that state: an incautious posit to say the least. But the second option is ruled out by two further stipulations that we may consistently make: (i) that Ollie *non-akratically* believes that, all things considered, they ought not to carry the piano, and (ii) that one *is* akratic, if one intends a thing that one believes, all things considered, ought not to be done.

I argue that there is a way through this dilemma, as subjects can jointly intend something even though it is not the case that any mental state has them as subjects: for an intention can be, not a mental state of intention, but some mental states of intention. Still, there remains a puzzle, because, for some mental states, had by Stan and Ollie, to count as their intention that they carry the piano, they must all be satisfied just if Stan and Ollie carry the piano, and it is hard to think of states with such satisfaction conditions, and which are plausibly attributable to Stan and Ollie. A plausible thought is that the states we seek are singly had intentions that one *play one's part*, jointly with the other, in carrying the piano. But depending on how one understands the notion of *playing one's part*, such states would appear simply to be either intentions that Stan and Ollie carry the piano (the attribution of which is ruled out) or massively complex conditional, conjunctive and/or self-referential intentions that are not plausibly attributed to the simple-minded. On a closer inspection, however, this is a false dilemma: a simpler construal of the notion of intending that one play one's part is available. The simpler proposal entails that either intentions are not attitudes towards propositions, or propositions are individuated rather more finely than is often assumed. I sketch some independent reasons to believe that this is indeed the case.

Background metaphysics

I assume that *the things we do* are types – act-types. To do a thing is to instantiate some act-type: an agent φs just if the act-type φ is a thing that he does, a thing that

he instantiates, and several agents φ just if the act-type φ is a thing that they do, a thing that they instantiate. Hence, an agent dances just if dancing is a thing that he does, and several agents dance just if dancing is a thing they that do.

There are two ways for several agents to φ: severally and jointly. (They can also φ *variously*, e.g. by some of them φ-ing jointly and the others also φ-ing jointly, or by some of them φ-ing jointly and the others φ-ing severally). When agents φ severally we cannot in general infer either that they φ jointly, or that they do not (if, on some occasion, we dance severally, it may be that we also dance jointly, but it may be that we do not). And when agents φ jointly we cannot in general infer either that they φ severally, or that they do not (if, on some occasion, we dance jointly, it may be that we also dance severally, but it may be that we do not – if I am still, and you shuffle around me, we may dance jointly but not severally). It is hard, then, to see how we might take one of 'severally' and 'jointly' as primitive, and define the other in terms of it. A better approach, to my mind, is to elucidate these concepts in terms of type-*instances*, thus, where '$(\forall X)$' is, following a number of writers (Boolos, 1984, 1985; van Inwagen, 1990; Lewis, 1991; Hossack, 2000; McKay, 2006) used as a *plural universal quantifier*, meaning *for any thing or things*, binding a plural variable, meaning *they* or *them*:

(S_I) $\Box\ (\forall X)\ (\forall \varphi)\ (X\ \varphi$ severally $\leftrightarrow ((\forall x)\ x$ is one of $X \rightarrow ((\exists i)\ i$ is an instance of φ & i is x's φ-ing)))

(J_I) $\Box\ (\forall X)\ (\forall \varphi)\ (X\ \varphi$ jointly $\leftrightarrow ((\exists i)\ i$ is an instance of φ & i is X's φ-ing))[1]

Hence, we dance severally just if there is an instance of dancing that is *my* dancing, and an instance of dancing that is *yours*; we dance jointly just if there is an instance of dancing that is *our* dancing.

The background assumption here is that some one or more agents do a thing, i.e. instantiate an act-type, just if some one or more instances of that act-type are possessed by – proper or attributable to – those agent(s), such that they may be designated by genitive noun phrases like 'my dancing', 'my dancing and your dancing', 'our dancing' etc. I see no reason to doubt this assumption. Such expressions bear all the hallmarks of designating expressions, and feature in apparently true sentences (e.g. 'My dancing was none too elegant'). And since such expressions occur as subjects of apparently true causal predications (e.g 'My dancing caused him to faint') act-type instances are unimpeachable on naturalistic grounds. Furthermore, we customarily refer to and quantify over actions, and anything that we would ordinarily call an action is, it would seem, designatable by some such expression. I propose, then, that in addition to the things we do, which are types, there are *actions*, which are instances of those types. What (S_I) and (J_I) implicitly do, then, is elucidate the difference between some agents' doing a thing severally, and their doing that thing jointly, by showing how it correlates with distinct allocations, or distributions, of *actions* to the agents in question.

[1] An innocent enough corollary of (J_I) is that when any *one* agent φs, he (degenerately) jointly φs.

It will be useful to expand upon (S_I) and (J_I) so as to make explicit their quantification over actions:

(S_A) □ (∀*X*) (∀*φ*) (*X φ* severally ↔ ((∀*x*) *x* is one of *X* → ((∃*a*) *a* is an action & *a* is an instance of *φ* & *a* is *x*'s *φ*-ing)))

(J_A) □ (∀*X*) (∀*φ*) (*X φ* jointly ↔ ((∃*a*) *a* is an action & *a* is an instance of *φ* & *a* is *X*'s *φ*-ing))

Since an action is not a thing we *do*, but an instance thereof, it helps to reserve a verb other than 'do' for the relation that agents bear to their actions. 'Perform' will do. Agents do things, by performing actions.

I have been using 'jointly' as an *adverbial* modifier (or at least as one occurring in post-predicate position). When transformed into a *sentential* modifier, it arguably functions differently. Consider:

(T_{adv}) Löwenheim and Skolem proved the theorem jointly (collectively, together).

(T_{sen}) Jointly (collectively, together) Löwenheim and Skolem proved the theorem.

Suppose that Löwenheim and Skolem collaborated on a proof of the theorem. Then both (T_{adv}) and (T_{sen}) are true. Now suppose that they worked in isolation, ignorant of each other's existence, that Löwenheim proved a lemma of the theorem, and that Skolem deduced the theorem from it. Then, to my ear, (T_{adv}) is false but (T_{sen}) true. (J_A) accounts for the fact that the truth-value of (T_{adv}) changes from the first case to the second. In the first case, some action of Löwenheim and Skolem's exists to serve as their instance of *proving the theorem*, but in the second case, nothing that we would ordinarily call an action of theirs exists to play this role. However, what is true in the second case is that some things (plural) that we would call some action*s* of Löwenheim and Skolem's – *viz.* Löwenheim's proving of the lemma and Skolem's conditional proof from that lemma – exist to serve as their instance of *proving the theorem*. That suggests that 'Jointly *X φ*' has a weaker truth-condition than '*X φ* jointly', one we may formulate thus, where '(∃*A*)' is (again, following Boolos, 1984, 1985; van Inwagen, 1990; Lewis, 1991; Hossack, 2000; McKay, 2006) used as a *plural existential quantifier*, meaning *there is or are some thing or things such that*:

(J_A^{Wk}) □ (∀*X*) (∀*φ*) (Jointly, *X φ* ↔ ((∃*A*) *A* is/are some action(s) & *A* is/are an instance of *φ* & *A* is/are *X*'s *φ*-ing))

A corollary is that whilst every action is an instance of an act-type, the converse is not true – an instance of an act-type may be a *plurality* of actions. I see no problem with holding that an instance of an act-type may be numerically many things. Certainly, instances of *substance* types (or *sortals*) are sometimes likewise numerically many: my boots are an instance of *pair*, my parents an instance of *couple* (Author's paper, 2006).

Sometimes a type instance is called a *token*. This may imply that every instance is a *particular*, so I reserve 'token' for an instance that is one particular.

It matters little if readers do not share my ear for the difference between (T_{adv}) and (T_{sen}). For, plainly there is *some* sense in which 'jointly' is an inapt modifier of 'Löwenheim and Skolem proved the theorem', in the case in which they worked in isolation, and another "weaker" sense in which it is apt. It is helpful to distinguish these senses and (J_A) and (J_A^{Wk}) help us to do this, even if they mistakenly correlate the distinction with one between adverbial and sentential modification. For ease of expression, I will, however, continue to distinguish between adverbial and sentential 'jointly', in the manner outlined.

To my ear, *adnominal* (or at least, pre-predicate) 'jointly', as is found in

(T_{adn}) Löwenheim and Skolem jointly (collectively, together) proved the theorem.

is semantically indeterminate. (T_{adn}) can be heard as having the truth-conditions of either (T_{adv}) or (T_{sen}). However that may be, it will be useful to reserve adnominal 'jointly' for such indeterminate usages.[2]

Four more remarks are called for.

First, when agents do a thing jointly, they perform some action – we may naturally call such an action a *joint action*. When, however, it is the case that jointly, agents do a thing, it does not follow that they perform some action – they may perform some actions. I shall stipulate, however, that they engage in *joint activity*. It is the broader category of *joint activity* which is my topic in this paper.

Second, since it is not just *act*-types that are jointly instantiated, since instantiations of other types make available genitive noun phrases designating *states* and *events* (instances of state- and event-types), that are, like 'our dancing', causally efficacious and hence unimpeachable on naturalistic grounds (e.g. 'the brackets' supporting of the shelf', 'the falling boulders' destruction of the hunting lodge'), and since actions are *events*, I take (J_A) and (J_A^{Wk}) to be corollaries, or restrictions, of a quite *general* account of 'jointly' or, as may be more natural, 'collectively', as modifiers of adjectival and verbal predications:[3]

(J_G) □ $(\forall X)$ $(\forall F)$ (X F jointly $\leftrightarrow$ $(\exists s)$ s is a state or event & s is an instance of F & s is X's F-ness/F-ing))

(J_G^{Wk}) □ $(\forall X)$ $(\forall F)$ (Jointly, X F $\leftrightarrow$ $(\exists S)$ S is/are some state(s) or event(s) & S is/are an instance of F & S is/are X's F-ness/F-ing))

[2] My comments on adverbial, sentential and adnominal 'jointly' are influenced by Moltmann (2004). Her topic is 'together' and her linguistic intuitions are not consonant with mine on 'jointly'.

[3] I exclude *nominal* predications, such as 'My boots are a pair' and 'They are baboons'. Adding 'jointly' or 'collectively' to these seems to me to be always either otiose or incongruous, unless the modified sentence is idiomatic shorthand (e.g. for 'When they get together they act like baboons').

We are, perhaps, not as interested in, or competent to adjudicate upon, the individuation of non-agentive states and events as we are the individuation of actions. If, jointly (or collectively), some trees shade a region of grassland, is there *one* or *many* states or events that is (or are) their shading of that region? I cannot say. Nevertheless, I presume that such questions have determinate answers, so we ought to distinguish between a stronger and a weaker use of 'jointly' in the non-agentive, as well as in the agentive case. And it will help to reserve adnominal 'jointly' for an indeterminate use in non-agentive cases too.

Third, 'joint', like its near synonyms 'shared' and 'together', can connote contiguity, composition, cooperation and coordination.[4] But the foregoing suggests that these are inessential features of jointness. Neither our imagined trees, nor the shadows that they cast, need be *contiguous* (the region could be discontinuous). Nor need they *compose* a further thing (e.g. a copse or composite shadow).[5] Nor need they *cooperatively* shade, or *coordinate* their shading. The same applies to the special case of *activity*. If Adam Smith (1981: *IV.ii*) is right, jointly, we secure the public interest, by each pursuing his own gain. It does not follow that either we, or our individually self-interested actions, are *contiguous*, that we, or they, *compose* a further thing, that we, or they, are *cooperative*, or that we, or they, *coordinate* the securement of the public interest.

Fourth, as no cognate of 'jointly' occurs on the right-hand sides of (J_A), (J_A^{Wk}), (J_G), and (J_G^{Wk}), they may seem to offer *definitions* that could be used to introduce the concept of jointness to one who lacks it. I think this is doubtful. For states and events, being causally embedded, are plausibly concrete, and it is built into a proper understanding of possession that to possess some one or more concreta is to exclude their concurrent possession by anything else. (It is of course, otherwise, with possession of *abstracta* such as universals). Hence, if some things *X* possess some concreta *C*, this excludes *C*'s possession by any thing or things among *X*. Hence, *X* cannot possess *C* severally, or by some of *X* possessing *C* jointly and the others also possessing *C* – the only way for *X* to possess *C* is jointly. Hence, if some *F*-ness or *F*-ing is possessed by some *X*, i.e. is *X*'s *F*-ness or *F*-ing, then it is jointly theirs. So, a full understanding of our right-hand sides may require a grasp of the concept of jointness, even though that concept is not explicitly invoked. No matter. I have tried to *elucidate* the concept of jointness, not to introduce it to one who lacks it.

[4] Re: 'together', Lasersohn (1998: 278) distinguishes "collectivizing", "spatial", "temporal", "coordinated action", "social accompaniment" and "assembly" readings, whilst Moltmann (2004: 289-90, 308, 313) distinguishes "cumulative numerical measurement", "collective-action", "coordinated-action", "spatiotemporal-proximity", "temporal-proximity", "mixture" and "configuration" readings. Moltmann thinks (290) that "[w]ith an appropriate generalization of the notion of measurement", her readings are subsumable under a "cumulative measurement" reading.

[5] *Pace* what is suggested by Frege (1979: 227-8): "[Regarding the sentence 'Siemens and Halske have built the first major telegraph network'] 'Siemens and Halske' designates a compound object about which a statement is being made" and Armstrong (1978: Vol. 1, 32): "On the natural interpretation of 'Tom, Dick and Harry lifted a girder' the phrase 'Tom, Dick and Harry' refers to a single entity: the team which Tom, Dick and Harry made up for the purpose of lifting the girder."

Intentional joint activity

When one does a thing, one may do it either intentionally or unintentionally, and when, jointly, agents do a thing, they may likewise do it either intentionally or unintentionally – I depict the point with this matrix:

	Singular	Joint
Unintentional	(i) A thing is unintentionally singly done.	(iii) A thing is unintentionally jointly done.
Intentional	(ii) A thing is intentionally singly done.	(iv) A thing is intentionally jointly done.

Examples of the difference between (i) and (ii) are familiar. There is a difference between, say, raising your arm at an auction and thereby unintentionally placing a bid – when all one meant to do was to stretch, say – and raising your arm (in apparently much the same way) and thereby *intentionally* placing a bid. Examples of the difference between (iii) and (iv) may be less familiar. I give three from the literature:

First, recall Adam Smith's idea that, by each pursuing his own gain, jointly, we secure the public interest. Smith (1981: *IV.ii*) is explicit that while the promoting of his interest is intentionally singly done, by each one of us, and the securement of the public interest is thereby jointly done by us, the securement of the public interest is not *intentionally* jointly done. So this is a (iii)-type case. Searle (1990: 404-5) gives us a contrast case in which

> …[some] business school graduates [educated at a business school where they learn Adam Smith's theory of the hidden hand] all get together on graduation day and form a pact to the effect that they will all go out together and help humanity by way of each pursuing his own selfish interests.

The existence of the pact ensures that *intentionally and jointly* the graduates secure the public interest: this is something they mean to do. So Searle's case contrasts with Smith's: it is a (iv)-type case.

Second, consider a case of Hayek's (1973: 41). He describes what happens when agents severally make their way through "wild broken country… [each] seek[ing] for himself what seems to him the best path" and, by so doing, over time, together create a track, and thereby "produce an order which is no part of their intentions". It is easy to think up a contrast case in which agents, like Searle's graduates, make a "pact" or agreement or joint decision to create a track, perhaps by the same method as is used by Hayek's agents, that is, by each seeking for himself what seems to him the best path, whenever he passes though the area. In both cases, what we might call "best path seeking" is intentionally singly done by each agent. In both cases, track-creating is jointly done by them. But only in the latter case is track-creating *intentionally* jointly done.

Third, consider a case of Frank Jackson's (1987: 83):

> Suppose – *contrary* to fact – that Lerner and Lowe [sic] never exchanged a word. They worked quite independently in ignorance of each other – one on the words, the other on the music – and by an incredible fluke the two independently produced parts fitted together to make up *My Fair Lady*. It would still be true that they together wrote *My Fair Lady* without either writing it alone. Writing *My Fair Lady* would still have been something that they did together, without it being the case that they had a common goal, or indeed that one's action in any way affected the other's.

In both Jackson's counterfactual case, and the contrast case that actuality supplies, the writing of *My Fair Lady* is jointly done by Lerner and Loewe. But in actuality alone is this *intentionally* jointly done by them. No doubt, in both cases, various things (lyric writing, music writing) are intentionally singly done by one or other artist. But only in actuality do they intentionally do what, jointly, they do.

I labour these examples there are at least two reasons why someone might inadvertently conflate (iii)- and (iv)-type cases.

First, as has been said, 'joint', like 'shared and 'together', can connote cooperation and coordination. And arguably, if joint activity is cooperative or coordinated, then it is intentional. Nevertheless, as we have seen, cooperation and coordination are inessential to joint activity. Our three examples hammer this point home.

Second, talk of *acting jointly* and *intentionally acting jointly* can blur the distinction between act-types and instances thereof, and while the thesis that *instances* are intentionally performed if jointly performed may be thought to have some plausibility, the thesis that *types* are intentionally done if jointly done is not plausible, and not plausibly entailed by the former thesis, and it is the latter thesis, and not the former, that would impugn our distinction between (iii) and (iv). Let me briefly explain and contextualise. Some (e.g. Davidson 1990: Essay 3) have held a view we may call (ALWAYS INTENTIONAL): whenever some φ is *singly* done, either φ, or some ψ such that the agent φs by ψ-ing, or ψs by φ-ing, is *intentionally* singly done by him (e.g. whenever *placing a bid* is done by one, either it, or something like *raising one's arm* is intentionally done). The view is often combined (see e.g. Davidson 1990: Essays 1, 3, following Anscombe 1957: § 19) with one we may call (CO-INSTANTIATION): to φ by ψ-ing, or ψ by φ-ing, is to perform an instance of φ-ing that is *also* an instance of ψ-ing (e.g. if one places a bid by raising one's arm, then one's bid-placing just is one's arm-raising). While (ALWAYS INTENTIONAL) faces credible counter-examples, notably the "sub-intentional" itchings, scratchings etc. discussed by O'Shaughnessy (1980: Vol. 2, 58-74), which do not, as it were, come under an agent's "radar", it may seem plausible that no *plurality* of agents jointly possesses any such "radar", and hence that we cannot *jointly* act sub-intentionally. It may then appear that a view we may call (ALWAYS INTENTIONAL IF JOINT) is true: whenever some φ is *jointly* done, either φ, or some jointly done ψ such that the agents φ by ψ-ing, or ψ by φ-ing, is *intentionally* jointly done by them. My hunch is that (ALWAYS INTENTIONAL IF JOINT) is more plausible for the case of joint action than it is for the case of joint activity, and that reflection on Smith's, Hayek's and Jackson's cases shows this to be so. But even if (ALWAYS INTENTIONAL IF JOINT) is granted, it does not impugn the distinction between (iii) and (iv), which requires only that a *type* such as *securement of the public interest* may be unintentionally jointly done. For even if (CO-INSTANTIATION)

– itself a contentious thesis – is also granted, all that follows is whenever some such type is unintentionally jointly done, the relevant *instance* of the type is, *qua* some *other* type ("under some *other* description") intentional.

Intention as explanans

It is good method to refrain from positing brute, inexplicable facts or truths, without good reason, also to assume, at least provisionally, that like explananda have like explanantia. We should assume, then, that there is a certain sort of fact such that, for any φ that is intentionally jointly done, a fact of that sort explains why it is done intentionally rather than unintentionally. As such explananda are *contrastive* ("intentionally rather than unintentionally") we can presume that, for any such explanandum, it is not the case that in any maximally close worlds in which φ is unintentionally jointly done by the relevant agents, the proposed explanans explains that too. Hence we have a counterfactual constraint on any candidate explanans: had φ been unintentionally jointly done by the relevant agents, the proposed explanans would not explain this as well – either because it would not obtain, or because it would not play the relevant explanatory role.

The counterfactual constraint rules out the possibility that the desired explanantia adduce mere bodily movements. For reflection on our three examples shows that, sometimes at least, when some φ is intentionally jointly done, (i) those who do it perform, in close worlds in which φ is unintentionally jointly done by them, the same bodily movements as they perform in actuality, and (ii) insofar as these bodily movements explain why, in actuality, φ is intentionally jointly done by the agents, they also, in the nearby worlds, explain why φ is unintentionally jointly done by the agents – which is what the constraint rules out.

If the body does not provide the desired explanation, the mind must: we should look for explanantia of a psychological type. Prima facie, the most eligible candidate is *intention*; more particularly, some intention(s) of the agents directed towards the act-type φ that they intentionally jointly instantiate.

Hence we may frame:

> *(INTENTION HYPOTHESIS)*
> For any agents $a_1,\ldots, a_n$ and act-type φ, if φ is jointly done by $a_1,\ldots, a_n$, and jointly done intentionally, rather than unintentionally, then this is, at least in part, because $a_1,\ldots, a_n$ intend that, jointly, they φ.

This is far and away the dominant hypothesis in the literature. (See for example Tuomela and Miller, 1998; Searle, 1990; Kutz, 2000; Roth, 2004; Gilbert, 2006a; Pettit and Schweikard, 2006; Ludwig, 2007; Bratman, 2009a; Alonso, 2009).[6]

A more or less standard way to defend *(INTENTION HYPOTHESIS)* (see e.g. Bratman, 2009a) is by a simple argument from analogy with a *prima facie* plausible corresponding claim about the singular case, namely

[6] I here gloss over a number of important differences between these authors' views.

(SINGULAR CASE)

For any agent *a* and act-type φ, if φ is done by *a*, and done intentionally, rather than unintentionally, then this is, at least in part, because *a* intends that he φ.

This argument is too quick, however, as (SINGULAR CASE) does not meet the *singular* analogue of our counterfactual constraint. For, plausibly, sometimes, when an agent φs intentionally, *were* he to φ unintentionally, this would also be, at least in part, because he intends that he φ – for it would either be because some such intention failed to cause his φ-ing, or because it caused it via a "deviant causal chain" (Peacocke, 1979) or because it caused it against the odds.

We may close this loophole, however, by reformulating both the hypothesis and the premise thus:

(INTENTION HYPOTHESIS)*

For any agents $a_{1,\ldots}$, a_n and act-type φ, if φ is jointly done by $a_{1,\ldots}$, a_n, and jointly done intentionally, rather than unintentionally, then this is, at least in part, because $a_{1,\ldots}$, a_n intend that, jointly, they φ, and their intention(s) that, jointly, they φ *control* their φ-ing.

(SINGULAR CASE)*

For any agent *a* and act-type φ, if φ is done by *a*, and done intentionally, rather than unintentionally, then this is, at least in part, because *a* intends that he φ, and his intention that he φ *controls* his φ-ing.

(where the invoked notion of *control* is, admittedly, something of a place-holder for a more worked out account of a relation that is such that, whenever it obtains between some intention(s) and corresponding action(s), guarantees that the former caused the latter, and did not do so via a deviant causal chain, or against the odds).

Still the argument is too quick, as there are putative counter-examples to (SINGULAR CASE*). For arguably, sometimes, when what one intentionally does is done spontaneously, or habitually, or done as a foreseen means to, or constituent or side effect of, a different thing that one intends, or done because it is called for by some policy one has, or by one whose authority one accepts, one has not intended *it*. Also, as Bratman (1999a: ch. 8) has argued, if we grant that, for any agent guilty of no criticizable irrationality, some world in which his beliefs are true is one in which he executes all of his intentions, then if ever one's intentional φ-ing follows a period of *trying* to φ, one during which one (i) tried to φ and tried to ψ, (ii) believed that one could not φ and ψ, and (iii) was guilty of no criticizable irrationality, one will not have intended to φ. For one will not have intended to φ and also to ψ, and it would be arbitrary to attribute either intention to one.

My way with these counter-examples is to concede them, and to proceed from a different premise:

> *(RESTRICTED SINGULAR CASE*)*
>
> For any agent *a* and act-type *φ*, if *φ* is done by *a*, and done intentionally, rather than unintentionally, *in execution of a prior decision of his that he* φ, then this is, at least in part, because *a* intends that he *φ*, and his intention that he *φ controls* his *φ*-ing.

(RESTRICTED SINGULAR CASE*) is plausible on the assumption that to *execute* a decision is not merely to do what one previously decided to do, but to do so *under the control* of that decision. The defence of the thesis is then roughly this: there must be some process by which a decision controls its subsequent execution; the best hypothesis is that it consists in the subject's *remaining decided*, and being controlled, at the time of execution, by his state of remaining decided; and (Pink, 1996: 20) to remain decided that one will *φ* suffice for one's intending that one will *φ*. For to remain decided that one will *φ* is *inter alia* to not forget, ignore, reject or re-deliberate the commitment to *φ*-ing that the decision sets in train, and to not forget, ignore, reject or re-deliberate one's commitment to *φ*-ing *just is* to intend that one will *φ*. Such an intention, then, provided that it controls one's *φ*-ing, will explain why one *φ*s intentionally rather than unintentionally, under the control of some prior decision, for it explains *how* the decision is able to "reach across time" and *itself* control one's *φ*-ing: the decision exerts its influence, as it were, through the agency of the intention.[7]

In short, then, given the tight link between controlling decisions and controlling intentions, faced with any putative counter-example to (SINGULAR CASE*), we may plausibly insist that it does not touch (RESTRICTED SINGULAR CASE*): if it really is a case in which no controlling *intention* that the agent *φ* exists to serve as an *explanans*, it is also a case where there is no execution of a *decision* that the agent *φ*.

An argument from analogy now supports the claim that agents' *joint* decisions likewise exert their influence through the agency of those agents' controlling intention(s) that they themselves *φ*. In short:

> *(RESTRICTED INTENTION HYPOTHESIS*)*
>
> For any agents $a_{1,\ldots}$, a_n and act-type *φ*, if *φ* is jointly done by $a_{1,\ldots}$, a_n, and jointly done intentionally, rather than unintentionally, *in execution of a prior joint decision of theirs that, jointly, they* φ, then this is, at least in part, because $a_{1,\ldots}$, a_n intend that, jointly, they *φ*, and their intention(s) that, jointly, they *φ control* their *φ*-ing.

[7] It might be alleged that (RESTRICTED SINGULAR CASE*) supplies a *superfluous* form of explanation, as any instance of intentional activity that *it* explains is *also* explained by the controlling influence of a prior decision. But the two explanations are complimentary, not competitors. (RESTRICTED SINGULAR CASE*) explains *how* such a decision exerts its control.

Note that each of (RESTRICTED SINGULAR CASE*) and (RESTRICTED INTENTION HYPOTHESIS*) plausibly satisfies the appropriate counterfactual constraint. That is, it is plausible that, when either an agent or some agents φ intentionally, and thereby execute a prior decision of theirs, *were* they to φ unintentionally, this would not be explicable by any controlling intention(s) of theirs that they themselves φ. For, plausibly, no such controlling intention(s) would be present. This, I submit, is true both of our initial example of intentional *singular* activity (placing a bid) and of the examples of intentional *joint* activity, which we introduced as contrast cases to the cases imagined by Smith, Hayek and Jackson.

The restriction on (RESTRICTED SINGULAR CASE*) is non-trivial. For whilst one who executes a prior decision of his that he φ will thereby φ intentionally, the converse is not true. One who φs intentionally may have decided to do something *else* to which φ-ing is a means, or of which it is a constituent or side effect. Or he may have decided to accept the authority of some policy or person that, in the circumstances, demands of him that he φ. Or he may have decided merely to "sleep on" the question of whether to φ, and risen feeling certain that he shall. Or he may have decided merely to try to φ, believing that he has at least a good chance. Or he may have made no relevant prior decision and simply have habitually or spontaneously φ-ed. More arguably, perhaps, the restriction on (RESTRICTED INTENTION HYPOTHESIS*) is likewise non-trivial: whilst agents who execute prior a joint decision of theirs that, jointly, they φ, are thereby such that, jointly and intentionally, they φ, the converse is not true. If that's right, then whilst (RESTRICTED INTENTION HYPOTHESIS*) can explain many instances of intentional joint activity, it cannot explain every such instance. Indeed, it may be that there is no such universal account: we may have to revise our working assumption that, for any φ that is intentionally jointly done, a fact of some sort explains why it is done intentionally rather than unintentionally. However that may be, the important point is that (INTENTION HYPOTHESIS), despite its prevalence in the literature, is a *premature* attempt to alight upon a form of explanation of intentional joint activity, given the doubtfulness of the claim that a like form of explanation of intentional singular activity has been found.

Still, even though both of our restricted claims are silent on the explanation of *non*-decision-executing intentional activity, there is reason to hope that (RESTRICTED INTENTION HYPOTHESIS*) makes considerable inroads on the question: *what explains the difference between intentional and unintentional joint activity?* For, whereas, when, singly, one intentionally does something, one frequently does not execute a prior decision of any sort, when, jointly, agents intentionally do something, they typically execute a prior decision of some sort, if not one to do what, jointly, they do. For even when an intentionally jointly done activity is in some sense habitual, or spontaneous, or "not thought through", it, is, typically – with the main exceptions being cases where parties comply with a request or command issued by an authority – the upshot of *some* prior joint decision, even if this decision was never verbalised, and consisted in, say, nods and winks, or in one of the parties "leading by example", and the others following suit. The reason is that whilst self-governance is possible for pluralities, it is not *native* to them, as it is native to the individual. It is not, as it is for the individual, a capacity the exercise of which can be *snapped into*: rather

it is something a plurality must somehow negotiate and construct. It is, then, I hazard, no accident that the striking difference between Smith's, Hayek's and Jackson's cases of *unintentional* joint activity, and our contrast cases of *intentional* joint activity, is the occurrence of some joint decision, agreement or pact. No doubt I *could* have offered you contrast cases which lacked this feature, but, I think they would have struck you as borderline, or exceptional, instances of the phenomenon being introduced.[8]

Three determinations of the hypothesis

The key phrase '$a_1,_{\ldots}$, a_n intend that, jointly, they φ' is indeterminate between three readings or construals.

(S) $a_1,_{\ldots}$, a_n severally intend that, jointly, they φ.
(J) $a_1,_{\ldots}$, a_n jointly intend that, jointly, they φ.
(V) $a_1,_{\ldots}$, a_n variously intend that, jointly, they φ, i.e. they intend this by some of them jointly intending it, and the others also intending it.

An (S)-type determination of (RESTRICTED INTENTION HYPOTHESIS*), or something close to it, is defended by Pettit and Schweikard (2006: 23):

> …a plurality perform a joint action in enacting a certain performance together only if… they each intend that they enact the performance;

Roth (2004: 361) defends a similar view:

> …each participant in some shared or joint activity, such as walking together, is *committed* to that activity.

where (361):

> …each participant is committed in that at least for now, the participant can answer the question of what he is doing or will be doing by saying for example "We are walking together" or "We will/intend to walk together".

and where (352):

> …the intention and commitment being expressed, for example, by "We will walk together" is not, or not merely, the intention of a group comprising everyone encompassed by the 'we'. Rather, the intention must be *distributive*, so that it will attach to each of the individuals referred to by the 'we'. Only then would "We will walk together" as thought or uttered by me express a participatory commitment *I* have to the activity.

A (J)-type determination of our hypothesis, or something close to it, looks to be defended by Gilbert (2006a: 12):

[8] Gilbert (2006b) holds that parties "act together" if and only if they are jointly committed to accepting ("as a body") a certain goal, and also that parties are jointly committed if and only if – as is common knowledge amongst them – they have previously each expressed their readiness to enter such a joint commitment. In my view, this comes close to making joint decision (or agreement) a necessary condition of intentional joint activity.

> Persons A and B are *collectively doing A* if and only if they collectively intend to do A… and each is effectively acting… so as to bring about fulfillment of this intention.

Bratman (2009a: 42) defends a similar view:

> Our painting together is a shared intentional activity, roughly, when we paint together because we share an intention so to act.

I know of no-one who defends a (V)-type determination of (RESTRICTED INTENTION HYPOTHESIS*). Such a determination lacks the simplicity beloved of theorists. Nevertheless, it appears to be a theoretical possibility, so I include it for completeness' sake. Another theoretical possibility, also lacking both defenders and the virtue of simplicity, is that (RESTRICTED INTENTION HYPOTHESIS*) is true on no *one* determination of its key phrase, but has some substitution instances that are true on some determination, and others true on other determinations. Again, I mention this only for completeness's sake.

Now for our puzzle: we can imagine a case that furnishes us with a substitution instance of the hypothesis that is, on the face of it, false on *each* of our three determinations. I proceed to sketch the case.

The case of reluctant Ollie

Stan and Ollie buy a piano. After discussing the matter, they jointly decide that, jointly, they will carry it home. They never rescind this decision, and go on to execute it. At no point is either man rendered, or revealed to be, *unfree* or *criticizably irrational*. But throughout the period from their discussion to their piano-carrying, Ollie believes that, in the circumstances, all things considered, they ought not to carry the piano. It seems to Ollie that what he and Stan ought to do is pay the shop to deliver the piano instead, as they can easily afford to do this, and are accident-prone. Ollie did *put* this to Stan, but Stan strongly disagreed, countering that they are fit, that the house is just up the road from the shop, that the delivery men employed by the shop have no insurance and so on. After a while, it became clear to Ollie that, for anything that he might say to Stan, were he to say it, Stan would not change his mind. And so, he (Ollie) concluded that it would be churlish to prolong the dispute, and that by accepting Stan's arguments and signing up to his plan, he would be able to claim reciprocal favours in the future. And so, despite Ollie's continuing reservations, the joint decision has been taken, and Ollie has allowed himself to be governed by it. (He "goes along with it", all the time muttering, 'I don't think we *should*, still and all, we've decided').

So the two men freely and rationally execute their joint decision that, jointly, they carry the piano, even though this overrides Ollie's "better judgement" on the issue. I take it that such cases are *widespread*.

By hypothesis, then:

(i) Ollie is neither unfree nor criticizably irrational.

(ii) Ollie believes that, all things considered, Stan and he ought not to carry the piano.[9]

I assume that, as with the cases that we contrasted with those of Smith, Hayek and Jackson, the existence of a prior decision renders its execution *intentional*. So:

(iii) Piano-carrying is intentionally jointly done by Stan and Ollie, in execution of a prior decision of theirs that, jointly, they carry the piano.

Now, given the standard view of *akrasia*:

(iv) Necessarily, if one intends something that one believes, all things considered, ought not to be done, then one is either unfree or criticizably irrational.

By (i) (ii) and (iv):

(v) Ollie does not intend that Stan and he carry the piano.[10]

But (iii) and (v) furnish us with a *false* substitution instance of an (S)-type determination of our hypothesis.

(iv) is the key premise, so let me briefly defend it. It may be said, against (iv), that the standard view of *akrasia* is restricted to intentions and deontic beliefs that regard what *one alone* shall do, and is impermissibly generalised to ones that regard what *some agents* (of whom one may or may not be one) shall do. I grant that expressions of the standard view are normally implicitly thus restricted, but I see no reason for the restriction. For first, one often freely wills that some agents (of whom one may or may not be one) do something: CJ, as the boss of Webster and Harris-Jones, can intend that they go to Minsk on Monday; Schoeman, as the leader of the LPO, can intend that he and his fellow first violinists ignore a *diminuendo* in the score. Second, one often freely neglects to bring such willings into conformity with one's deontic beliefs: we can easily imagine that CJ and Schoeman bear the described intentions *against their better judgements*. Third, when such disconformity obtains, one is *at odds with oneself* and hence, since one is free, criticizably irrational, in the manner characteristic of the *akrates*, as standardly conceived.

Still, an objector might try to ague that one's relations with others differ from one's relations with oneself, in ways that make free, rational disconformity between *other*-regarding intentions and deontic beliefs a possibility, even whilst such disconformity between *self*-regarding states is excluded.

One disanalogy that may be adduced concerns *respect*. Arguably, the respect that one owes others allows for disconformity of the sort described, because (absent relations of institutional authority) it imposes an obligation, or at

[9] I omit 'jointly' from the description of Ollie's belief, as I would wish to use a sentential 'jointly', and there is no natural way to add one. (My best attempt: Ollie believes that, all things considered, Stan and he ought not to be such that – or ought not to see to it that – jointly, they carry the piano).
[10] I omit 'jointly' so as to ensure an isomorphism with the belief in (ii). See the previous note.

least a permission, to *not* adopt intentions that regard what others shall do, no matter what one's deontic beliefs regarding them are, on the grounds that (absent relations of institutional authority) to adopt such intentions is to disrespect others' autonomy. No such consideration allows for a like disconformity between *self*-regarding intentions and deontic beliefs. The point may be granted, for it is a *non sequitur*: (iv) is consistent with the obligation, or permission, described. For (iv) entails, not that one is unfree or irrational if one *fails* to intend something that one believes ought to be done, but that one is unfree or irrational if one *intends* something that one believes ought *not* to be done. Even if one has no business intending anything for others, all that (iv) entails is that *if* one does, then one is unfree or irrational if the intention is out of kilter with one's deontic beliefs.

A second disanalogy concerns *love*. Arguably, love borne for others allows for disconformity of the sort described, because it imposes a permission, and perhaps even sometimes an obligation, to *adopt* intentions that regard what others shall do, which do not conform with one's deontic beliefs regarding them, provided that the execution of these intentions would, in the view of the beloved, serve some desire or interest of his. Self-love, by contrast, does not seem to allow for any such disconformity. No matter how much I love myself, if I freely intend, against my better judgement, that I go to the circus, then, even if I desire to go, I am irrational. But if I love my son and he desires to go to the circus, then, it may seem, I may freely and rationally intend, against my better judgement, that he go. I make two replies. First, even if (iv) must be qualified to account for this point, nothing in our description of the case of Ollie entails that Ollie loves or even likes Stan: his deliberations are entirely egoistic. Second, it is doubtful that (iv) does require qualification. For Frankfurt (1988: Essay 7, 1999: Essays 7, 9, 11, 14, 2004) plausibly claims that love and care are apt to impose "volitional necessities" upon agents, such that they do not *freely* intend what their love determines them to intend (which is not to deny that they identify with and endorse the intentions that they lovingly adopt). And *ex hypothesi*, Stan and Ollie are not unfree.

No doubt more could be said in defence of (iv). This must suffice for now.

As far as I can see, the only other way reasonably to object to the argument is to deny the consistency of the story of reluctant Ollie. A quick way to do this would be to insist that (ii) and (iii) together contradict (i): if Ollie really does partake of an intentional joint activity whilst believing that it ought not to be done, then he is unfree or criticizably irrational. A longer way to make the same denial would be to provisionally accept (i), (ii), and (iii), infer (v) via (iv) as per the argument, and then insist that (v) and (iii) together contradict (i): if Ollie really does partake of an intentional joint activity, whilst not intending that it be done, then he is unfree or criticizably irrational. But these arguments are not persuasive. For the case, as described, does not seem incoherent; it seems *banal*. There is a simple reason why: *one has to make the best of a bad world*. We need to get along, and one way we do is through intentional joint activity. And yet, each of us engages in such activity against a background of circumstances, including the actions and states of others, which we do not choose, and cannot control. For these reasons, one often finds oneself partaking of intentional joint activities, of which one does not approve, and which one does not intend. Such is life!

A persistent objector might try to argue, however, that (i) and (ii) support

(ii_D) Ollie believes that, all things considered, Stan and he ought not to jointly *decide* that they carry a piano.

From (i) (ii_D) and (iv) one can further infer that

(v_D) Ollie does not intend that Stan and he jointly *decide* that they carry a piano.

It may also be said that, since any decision is an act of will,

(iii_D) Deciding to carry a piano is intentionally jointly done by Stan and Ollie.

It may now be argued that (ii_D) and (iii_D) together contradict (i): if Ollie really does partake of an (intentional) joint *decision* whilst believing that it ought not to be made, then he is unfree or criticizably irrational. Alternatively, it may be argued that (v_D) and (iii_D) together contradict (i): if Ollie really does partake of an (intentional) joint decision, whilst not intending that it be made, then he is unfree or criticizably irrational. But these arguments are no more persuasive than their predecessors. Again, one way we get along is through (intentional) joint decision-making. And again, each of us engages in such decision-making against a background of circumstances, which we do not choose, and cannot control. For these reasons, one often finds oneself partaking of (intentional) joint decisions, of which one does not approve, and which one does not intend. Again, such is life!

A final argument may seem to show that the case as I described it is inconsistent. For it is a folk psychological truism that unrescinded decisions *commit* their parties. (More carefully, perhaps, unrescinded decisions not made under duress, or influence of coercion or deception, commit their parties – but we may omit these caveats as they do not apply to the case of Stan and Ollie). So:

(1) Stan and Ollie are committed by their unrescinded decision to their carrying of the piano.

And a plausible way to unpack the relevant notion of commitment is as follows:

(2) If some agent(s) are committed by their unrescinded decision to φ, then at least *pro tanto*, they ought to φ.

From (1) and (2) we can infer:

(3) Stan and Ollie at least *pro tanto* ought to carry the piano.

I say '*pro tanto*' because, arguably, whilst an unrescinded decision to do something pointless, or wicked, commits its parties, it does not ensure that *all things considered* they ought to perform the commitment. Arguably, they *pro tanto* ought to perform it, but the pointlessness or wickedness of doing so

overrides this 'ought'.[11] However that may be, in Stan and Ollie's circumstances, piano-carrying is neither pointless nor wicked, so we are entitled to further infer:

(4) All things considered, Stan and Ollie ought to carry the piano.

By (i), Ollie is not criticizably irrational, so may be presumed to know the truism that entails (1), to know (2), and to have inferred (3) and (4). But then, given (ii), he believes that something all things considered *ought*, and all things considered *ought not* to be done, and so is criticizably irrational, *contra* (i).

I reply by denying (2). The *right* way to unpack the relevant notion of commitment is as follows:

(2*) If some agent(s) are committed by their unrescinded decision to φ, then, at least *pro tanto*,[12] they ought either to φ or to rescind their decision.

The reason is simple, if some agent(s) make a decision and then, by rescinding it, *change their mind(s)*, they do not thereby fail to be as they ought to be. Like a promise, and unlike a desire, a decision commits its subject(s). But unlike a promise, and like a desire, it is permissibly repudiated by its subject(s).

If (2) has the appearance of truth, this may be explained away, for it is easily confused with:

(2_G) If it is *given* to some agent(s) (i.e. beyond their control) that they are committed by their unrescinded decision to φ, then, at least *pro tanto*, they ought to φ.

(2) and (2_G) might be confused, as both are eligible readings of:

(G) *Given* that some agent(s) are committed by their unrescinded decision to φ, then at least *pro tanto*, they ought to φ.

(2_G) *is* true, by "ought entails can". If a commitment set in train by an unrescinded decision really is *unpreventable* by its agent(s) – e.g. because, once the decision is made, they have no opportunity to get together to discuss and implement its rescission[13] – then their only options are performance and non-performance. In such circumstances, they ought, at least *pro tanto*, to perform.[14]

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[11] It may be thought that an unrescinded decision to do something pointless or wicked does not even *commit* its parties, and that, we should, accordingly, expand the list of caveats (coercion etc.) in the truism from which we inferred (1). I think this is mistaken. It is precisely because a decision to do something pointless or wicked *does* commit one that other "things" ought to be "considered".

[12] 'Pro tanto' because of the concerns regarding pointlessness and wickedness already mentioned.

[13] I follow Gilbert (2003: 50) in thinking that a *joint* decision – or, as she prefers to say, joint "commitment" – "is not rescindable by [any] party unilaterally, but only by the parties together".

[14] The point generalises. It may appear that *if* I murder, I ought to do so gently, that *if* I will not submit the paper on time, I ought to decline the invitation, that *if* I smoke, I ought to smoke low tar cigarettes etc. But if I have the power to render false the antecedents of these conditionals, then *that* is what I ought to do, not what the consequents prescribe, even if the antecedents are true. If, however, the antecedents' truth is *given* to me, then I ought to do what the consequents prescribe. See Humberstone (1991).

Since (2_G) is true, it may be rationally believed by Ollie; indeed, it may be a consequence of his rationality that he *does* believe it. This is no problem, for his so believing does not commit him to the problematic (3). There is no valid argument from (1) and (2_G) to (3), and whilst (3) follows from (2_G) and

(1_G) It is *given* to Stan and Ollie (i.e. beyond their control) that they are committed by their unrescinded decision to their carrying of the piano.

(1_G) is false – Stan and Ollie have the power to rescind their decision. So there is no reason to attribute belief in it to Ollie.

The other horn

The case of Stan and Ollie furnishes us with a *false* substitution instance of an (S)-type determination of our hypothesis. If the hypothesis is to be rescued, the case must provide us with a *true* substitution instance of either a (J)- or a (V)- type hypothesis. However, as Stan and Ollie are but two, it cannot be that they *variously* intend that they carry the piano. So our hypothesis is rescued only if Stan and Ollie *jointly* intend that they carry the piano. The apparent difficulty we now face is that agents *never* jointly intend anything. Why so? Because, it may seem, for agents to literally jointly intend a thing, some state, or attitude, of intention must be jointly borne by them, and this, it may seem, *never happens*. Every mental state is a state that a mind is in, every mind belongs to a single agent; hence, every mental state is a state of a single agent.

The point has struck a number of philosophers as just *obvious*. Here is Ludwig (2007: 365-6)

> A state of intending cannot be shared by distinct agents… Each such state is a state of an agent… It is a conceptual truth that intentions are not shared between agents… There are no collective intenders, and there is no collective intending.

van Inwagen (1990: 5):

> In the case of any particular episode of thought or sensation, there must be a thing, one thing, that is doing the thinking and feeling.[15]

Korsgaard (2009: 18):

> … it is essential to a thought that it be thought be a thinker.

Velleman (1997: 30):

> What has made some philosophers skeptical about literally sharing an intention is that intention is a mental state or event, and minds belong to individual persons.

[15] van Inwagen recapitulates the point at 118, where he adds that he uses 'think' in a "very liberal sense" in which it applies to, among other things, "feeling pain" and "planning for tomorrow".

And here is Searle (2002: 5)

> …all human intentionality is in the brains of human individuals.

These firmly held views may seem to be contradicted by the earlier mentioned views of Gilbert and Bratman. On a closer inspection, however, this is not so. Their talk of collective or shared intention is accompanied by caveats that strongly suggest that they do not *really* mean to posit the existence of token states or attitudes of intention, which are *literally* jointly borne. Rather, in their view, a collective or shared intention need be neither a psychological state, nor even merely some psychological states. Here is Gilbert (2007: 46)

> One can say, perhaps, that since "I intend . . ." refers to a state of an individual's mind or brain, then "We intend . . ." may well do so, or it may well refer to a series of individual minds in certain states. It may, but it seems a mistake to assume a priori that it must. It is in fact entirely plausible to expect that, when coupled with the… plural pronoun… the verb "intend" refers not just to facts about individual minds, if it refers to those at all, but to facts about the relationship of certain human beings one to another. Such relationships may involve their minds, but also their bodies, their perceptions or knowledge of each other, their communications, and so on.[16]

And here is Bratman (1999b: 122-3)

> Shared intention… is not an attitude… 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 (111):

> …we should… understand shared intention, in the basic case, as a state of affairs consisting primarily of appropriate attitudes of each individual participant and their interrelations.[17]

These writers do not explain why we should, or even may, understand collective and shared intention in the ways they recommend.[18] Perhaps they think that 'intend' and its cognates are semantically indeterminate and do not predicate psychological states when modified by 'jointly' and its cognates. Or perhaps they are simply using 'collective intention' and 'shared intention' as *theoretical place-holders* for *whatever it is* that explains the difference between unintentional and

[16] I have elided a paragraph break.

[17] In (Bratman, 1999b: 121, 131) a description of such "attitudes… and their interrelations" is put forward as a condition necessary and sufficient for shared intention. In more recent work (Bratman, 2007: 291, 2009a, 2009b), Bratman has withdrawn the claim of necessity. The details of his description have also developed over the years, but one constant feature is that, as Bratman sees it, agents who share an intention to φ *severally* intend that they φ. So whilst Bratman may appear to favour a (J)-type *explanans*, he thinks that (at least some) *explanantia* feature an (S)-type clause.

[18] Contrast Vellleman (1997). Like Gilbert and Bratman, he accords an explanatory role to shared intentions, and denies that they need instantiate the psychological state- or attitude-type *intention*. For he thinks a shared intention can be constituted by speech-acts, in particular, by interconditional predictive statements like 'I will if you will'. But Velleman *argues* for his view that some intentions, singular and joint, are so constituted. Gilbert's and Bratman's uses of 'collective intention' and 'shared intention' receive little argumentative support, and hence appear stipulative.

intentional joint activity. (They are free to do so, of course, but this rather nullifies the content of the hypothesis that intention explains the difference).

I confess that I do not share the widely held scepticism about jointly borne psychological states. No doubt, if there are such states, some familiar generalizations about mentality must be revised, or at least looked at again. But I do not see that any of these generalizations are immune from revision, or that the required revisions should confound us. Even the apparent truism that every mental state is a state that a mind is in would require only a modest revision *viz.* that at least one mental state is a state that some *minds* are in. Ludwig's claim, in particular, that it is "a conceptual truth that intentions are not shared between agents" strikes me as overcooked, and hard to swallow. However that may be, for the purposes of this paper, I will fall in with the prevailing consensus, because it seems to me that the claim that Stan and Ollie jointly intend that they carry the piano does *not* entail that any state of intention is jointly borne by them.

Way out

Readers will have anticipated why. (J) features an *adnominal* 'jointly', and hence is indeterminate between:

(J_{adv}) $a_1,\ldots, a_n$ intend, jointly, that, jointly, they φ.
(J_{sen}) Jointly, $a_1,\ldots, a_n$ intend that, jointly, they φ.

(J_{adv}) is true just if some token state of the agents' is an intention that, jointly, they φ. But (J_{sen}) makes a weaker claim, one true just if some token state(s) of the agents' is/are an intention that, jointly, they φ. No special pleading is needed for me to discriminate between these two readings of (J). I merely exploit our earlier, quite general, distinction between a weaker and stronger reading of 'jointly' as a modifier of adjectival and verbal predications. (Compare: 'The trees jointly shade the grassland'). In particular, the discrimination does not require us to claim *ex cathedra*, as Bratman and Gilbert seem to wish to claim, that to jointly intend is not, or is not merely, to instantiate the state- or attitude-type *intention*. Still, when read as (J_{sen}), (J) does not predicate any *token* state or attitude of intention of a plurality of agents. It does not require that any state is a state that several minds are in, still less that any state is a state of a mind, had by several agents. It requires only that some intention is some states, borne by some agents.

But what plurality of agents' states could plausibly serve as those agents' intention that, jointly, they φ? The states must be directed towards the satisfaction condition <jointly, they φ>, and in the manner characteristic of intentions. My best guess then, given our embargo against jointly had psychological states, is that any eligible candidate will be a plurality of states of intention, each had by just one of the relevant agents, *all* of which are satisfied just if, jointly, the agents φ.

One plurality fitting this description is a plurality of states of intention, one for each agent, each of which is an intention that, jointly, the agents φ. But we should not expect that, whenever, jointly, some agents intend that, jointly, they φ, they bear some such plurality of states. For, if the foregoing is correct, jointly,

Stan and Ollie intend that, jointly, they φ, but do not each bear an intention that, jointly, they φ.

A far more plausible hypothesis is that just as, jointly, Löwenheim and Skolem can prove a theorem by each performing some action that *contributes towards* or *furthers the prospect of* or *participates in* their proving of that theorem, so, jointly, Stan and Ollie can intend that they carry the piano by each bearing some state of intention that he *contributes toward* or *furthers the prospect of* or *participates in* their carrying of the piano. This suggests the attractive hypothesis that a (J_{sen})-type determination of *(RESTRICTED INTENTION HYPOTHESIS*)* can be further precisified, by putting *this* in place of (J_{sen}):

(P) Each of $a_1,_{...}, a_n$ intends that he *play his part* in their joint φ-ing.

After all, if, each of Stan and Ollie intends that he play his part in their carrying of the piano, then, if, jointly, they carry the piano, both of these intentions are satisfied, and, if both intentions are satisfied, then, jointly, they carry the piano. So the intentions (plural) are satisfied just if, jointly, they carry the piano, and so plausibly serve as an instance of the psychological type *intention that, jointly, they carry the piano*.

Here then is our way out. The explanation of Stan and Ollie's intentional joint activity is neither that, for each one of them, a state of intention that they carry the piano is borne by him. Nor is it that a state of intention that they carry the piano is borne by them. Rather, it is that some *states* of intention that they carry the piano, *namely Stan's state of intention that he play his part in their carrying of the piano, and Ollie's like state of intention*, are borne by them.

Kutz

The idea that intentions to play one's part are key is not new. Kutz (2000: 16) has said that

> [intentionally] jointly acting groups consist of individuals who intend to contribute to a collective end…

That is, individuals each of whom intends (6-7)

> to do his or her part of promoting the group activity or outcome.[19]

But what *exactly* is the content of an intention to *play one's part*? Kutz (10) writes:

> …a *participatory intention* [is] an intention to do my part of a collective act, where my part is defined as the task I ought to perform if we are to be successful in realizing a shared goal.

And he urges (25) that, in executing such an intention, one intentionally performs such a "task" both "as a means" to that goal and "because it is a means" to it.[20] Let

[19] Pettit and Schweikard (2006: 23) who, as we have seen, claim that intentionally jointly acting agents "each intend that they enact the performance" also likewise hold that such agents "each intend to do their bit in this performance". But they do not elucidate the notion of *doing one's bit*.

us presume that by a *means* Kutz means not just a necessary means, but one that is sufficient if the other participants pursue like means. For unless 'means' is thus understood, Kutzian intentions to participate in, say, piano-carrying will not serve as an instance of an intention that the agents carry a piano, for they will not all be satisfied if and *only if* piano-carrying occurs. For Stan and Ollie may each intend that he *lift some part of the piano*, and hence each intend to pursue a means necessary for their joint piano-carrying, and may intend this "as a means" and "because it is a means". But whilst, if they carry the piano, such intentions are satisfied, the converse is not true: the intentions are satisfied if both men vainly set about lifting the piano's left-hand side, and so fail to carry it.

How might Stan and Ollie each intend something that is, in the required sense, a means to their piano carrying? As I've said, intentions that one *lift some part of the piano* will not do, for their execution would be necessary but not sufficient for piano carrying. More specific intentions, such an intention of Stan's that he *lift the left-hand side* and an intention of Ollie's that he *lift the right-hand side* will not do either, for their execution would be, at best, sufficient but not necessary for piano carrying (if Stan instead lifts the right-hand side, and Ollie the left, the piano is carried). Because there are countless ways for Stan and Ollie to carry the piano, it may appear that intentions to perform Kutzian means to this end must be very complex: conjunctive and conditional in structure. For example, it may be held that Stan has an intention that he (Stan) lifts the left-hand side of the piano just if Ollie lifts the right-hand side, and that he (Stan) lift the right-hand side just if Ollie lifts the left-hand side, and so on etc., and that Ollie has a like intention. But first, one might puzzle over whether such intentions would ever motivate either man, on the grounds that as each cannot know what to do until some condition on some conjunct of his intention is met, *they can't get started*. Second, as even the conceptually unsophisticated (e.g. infant children, as well as infantile Hollywood clowns) seem to engage in intentional joint activity,[21] we should be wary of attributing any especially logically complex intentions to those who thus engage, if a simpler course is available to us.

Furthermore, intentions that one lift some part, or lift the left- (or right-) hand side of the piano do not satisfy our counterfactual constraint: insofar as they do explain why, in actuality, piano-carrying is intentionally jointly done by Stan and Ollie, they will also, in nearby worlds, explain why it is unintentionally jointly done by them. Furthermore, it is not obviously a condition of intentional joint piano-carrying that each party does intend a contributory constituent action such as that of his lifting the left-hand side. They might rather generate such constituent actions "on the hoof", as it were, improvising their contributions to the joint activity in the light of the contributions of others, and events as they occur.

As far as I can see, the only other way for Stan and Ollie to each intend a Kutzian means to their piano carrying is for each one of them to intend, generically, *that he do something that is necessary for their piano-carrying, and sufficient for it, if the other does likewise* (i.e. if the other likewise does something

[20] Tuomela (2005) similarly claims that what he calls (89) "*proper* joint action" is "joint acting on (shared) we-intention" and (128) that "a we-intending agent… intend[s] to do his part *as his part*".
[21] This is so, if, as may seem plausible, infantile joint *attentional* activity (e.g. pointing or showing, with some communicative intention) is, sometimes, also *intentional* joint activity. Work on joint attention includes (Bakeman and Adamson, 1984; Moore and Dunham, 1995; Eilan *et al*, 2005).

necessary for their piano-carrying, and sufficient for it, if *he* does likewise). Such intentions would plausibly serve as an instance of an intention that Stan and Ollie carry the piano: for, if present, both are satisfied if Stan and Ollie carry the piano, and if Stan and Ollie carry the piano, both are satisfied. They appear also to meet our counterfactual constraint: were Stan and Ollie to carry the piano unintentionally, this would not be explicable by controlling intentions of this sort, for, plausibly, no such intentions would be present. Still, nothing in the description of our case obviously entails that Stan and Ollie have the conceptual sophistication required to bear such intentions. Whilst they are not as complex as the conjunctive conditional intentions previously sketched, their contents are intricate. It is not just that they are conditional in form. They are *self-referential* too, and in a manner that, if fully unpacked, appears to launch an infinite regress. Each party intends *inter alia* that he do something that suffices, if the other does the same, i.e. on condition that the other likewise does something that suffices, if *he* does the same, i.e. on condition that *he* likewise does something that suffices, if the other does the same etc. Self-reference and regress puzzle even the conceptually sophisticated, and so we should be wary of attributing even an implicit grasp of such concepts to the untutored, if a simpler course is open to us.

A simpler proposal

Let us make a fresh start. In his discussion of the content of what he calls participatory intentions, Kutz moves freely between talk of *playing one's part* and talk of *participation* and *contribution* (also of *furthering*). To my ear, the latter expressions semantically determine the former one. There are two ways to understand the notion of *playing one's part* or, as one might more colloquially say, that of *doing one's bit*. One can do one's bit *in* a joint activity, or one can do one's bit *towards* such an activity. In the former case, the joint activity must occur (or else there is nothing for one to do one's bit *in*). In the latter case, it need not (there need only be the *prospect* of an activity that one does one's bit towards). Now, participation, to my ear, is participation *in*, i.e. the doing of one's bit *in* an actually occurring activity, whereas contribution is contribution *towards* and hence requires only the prospect of an activity – furthering, likewise, is the furthering of the prospect of some such activity.[22] Kutz's proposal, then, that a *participatory* intention is an intention to perform some means that is inter alia sufficient for the joint activity, if others pursue like means, is, then, a misnomer. Such intentions are better described as *contributory* or *furthering* intentions.

What, then, might a bona fide *participatory* intention look like? I have a simple proposal. Since participation in an activity entails the occurrence of that activity, and since to participate just is to *join in with*, to intend that one participates, or plays one's part *in* (partakes of) some agents' joint φ-ing is simply to intend that one φs, jointly with them. For to φ, jointly with others, it must be that, jointly, one and they φ. I propose, then, that we further determine (P), thus:

[22] 'Part' is likewise semantically indeterminate. In one "participatory" sense, a suitably fashioned piece of wood is not a part of a chair unless there exists a chair of which it is (at some time) a part. In another "contributory" sense, such a piece of wood is a part of a chair, even if no chair exists that (at any time) has it as a part: for the fact *if* other suitably fashioned objects are put together with it in certain ways *then* it does partake of a chair, entitles one to "honorifically" call it a part of a chair (as one might put it, its existence furthers the prospect of a chair existing with it as a part).

(P*) Each of $a_1, \ldots, a_n$ intends that he φ, jointly with the others.

Let us take stock. The case of Stan and Ollie appeared not to be explicable by either an (S), (J) or (V)-type determination of *(RESTRICTED INTENTION HYPOTHESIS*)*. On closer inspection, however, we saw that (J) is indeterminate between (J_{adv}) and (J_{sen}) and that only (J_{adv}) was excluded – by what I called "the prevailing consensus". We then saw that a (J_{sen})-type determination could be further precisified by substituting (P) for (J_{sen}). I have now proposed that we can further determine (P), by substituting (P*) for it.

But now an obvious objection looms: (P*) is equivalent to the rejected (S). For both attribute intentions to each one of $a_1, \ldots, a_n$, and each intention attributed by (S) has a satisfaction condition that each intention attributed by (P*) *also* has. To take our chosen case, necessarily, jointly, Stan and Ollie carry the piano just if either one of the two men carries the piano, jointly with the other. Furthermore, the relationship appears to be even tighter than one of necessary equivalence: there is a *constitutive* connection. That Stan carries the piano jointly with Ollie (or that Ollie does so jointly with Stan) is part of *what it is* for Stan and Ollie jointly to carry the piano, and vice versa. One might develop the point thus: *_carries the piano jointly with_* and *_jointly carry the piano* are not two relations, but *one* relation, one of variable -adicity, and one that is, to borrow Oliver and Smiley's (2004: 618) term, *globally symmetric*, i.e. symmetric both with respect to its (variable number of) argument places, and with respect to the order in which they are occupied.[23] Hence, just as the propositions <Quine is paid the same as McX> and <McX is paid the same as Quine> are both necessarily equivalent and constitutively related – indeed, it may be said, identical – because they are compounded out of the same objects, and the same symmetric relation, so the propositions <Stan carries the piano jointly with Ollie>, <Ollie carries the piano jointly with Stan> and <Jointly, Stan and Ollie carry the piano> are both necessarily equivalent and constitutively related – again, it may be said, identical – because they are compounded out of the same objects, and the same *globally* symmetric relation. If that's right, then the distinction between (P*) and the rejected (S) may appear to be a distinction without a difference.

It is this last step, in my view, that we should not take. Consider, first, a simple, dyadic symmetric case. Let us grant that <Quine is paid the same as McX> and <McX is paid the same as Quine> are necessarily equivalent and constitutively related, and arguably identical, for the reason given. Nevertheless

(Q1) Quine intends that he is paid the same as McX
(Q2) Quine intends that McX is paid the same as him

may, I submit, differ in truth-value. If what matters to Quine is that his salary tracks that of McX, not that McX's salary tracks his own, then (Q1) may be true but (Q2) false. Similar examples are easily come by:

(L1) Leonato intends that Hero (his daughter) marry Claudio
(L2) Leonato intends that Claudio marry Hero (his daughter)

[23] Oliver and Smiley also distinguish, as I here do not, between argument places and "positions" *within* them.

(F1) Foreman intends that he fight Ali
(F2) Foreman intends that Ali fight him

If Leonato is concerned that Hero honour her pledge to Claudio, but less concerned that Claudio honour his pledge to Hero, then (L1) may be true but (L2) false. And if Foreman is driven by an ambition to fight with Ali, and has no converse, vicarious, ambition for Ali, then (F1) may be true but (F2) false.

Furthermore, as a symmetric relation is, by virtue of its symmetry, identical with its converse, the point can be seen to be a special case of a more general point about relations and their converses. Consider:

(G1) God intends that Christ is betrayed by Judas
(G2) God intends that Judas betray Christ

<Christ is betrayed by Judas> and <Judas betrays Christ> are necessarily equivalent and constitutively related, and, arguably, identical, because one is compounded out of two objects and a non-symmetric relation in one order, and the other out of those same objects and the converse relation, in the opposite order.[24] Nevertheless, if it is part of God's plan that Christ be sacrificed, but no part of his plan that any man sin, then (G1) may be true but (G2) false.[25]

What follows? Most probably, that intentions are best construed as attitudes towards ordered pairs made up of the intended *type* and the *object(s)* for which one intends it. The suggestion is consonant with natural language. The form <*x* intends for $y_{1,\ldots}$, y_n to *F*> is, to my ear, at least as natural an English form as <*x* intends that *p*>. <*x*'s plan for $y_{1,\ldots}$, y_n is that they *F*> may be even more natural.

This is not necessarily to deny the standard view that intentions are attitudes directed towards propositions. It is to claim, rather, that if the standard view is right, then ordered pairs of the sort described are identifiable with propositions. Neither is it do deny that for any dyadic *R* and its converse *R** (with which *R* may or may not be identical) <*aRb*> and <*bR*a*> are identical. But it is to claim that, if they are, then at least some such self-identical proposition admits of alternative decompositions into ordered pairs, which – bracketing the question of whether *these* are propositions – may serve as objects of our intentions.

If I am right thus far, I do not see why the point cannot generalise to relations that are *globally* symmetric, such that, while it is true that

(SO1) Ollie intends that he carry the piano, jointly with Stan

It is false that

(SO2) Ollie intends that, jointly, Stan and he carry the piano

Generalising, for some globally symmetric relation *R* of variable -adicity, one can intend that *aRb*, and not intend that *abR*. Again, this is not to deny that such intentions are attitudes towards propositions. It is claim that *if* they are, then

[24] For relevant discussion, that may throw doubt on the identity claim, see (Fine, 2000).
[25] I here adapt a claim of Anselm's. See (O'Neill, 1994) for discussion.

ordered pairs of the form <*a*, *Rb*> and <*ab*, *R*> are identifiable with such propositions. Neither it is to deny that, for any globally symmetric *R*, <*aRb*> and <*abR*> are identical. But it is to claim that, if they are, then at least some such self-identical proposition admits of alternative decompositions into ordered pairs, which – bracketing the issue of whether *these* are propositions – may serve as objects of our intentions.

It is often observed that an agent can fail to possess an intention that shares its satisfaction condition with an intention that he does possess: even if, necessarily, I kill the patient just if I harvest his organs, or bomb the school just if I bomb the factory, I might merely *foresee* the former, whilst *intending* the latter. I hazard that it is not too great a stretch to further allow that an agent can fail to possess an intention that has satisfaction conditions that are *constitutively* related, in the manner outlined, to those of one he does possess: our Ollie may merely *foresee* that Stan and he carry the piano, but *intend* that he carry it with Stan.

Final objection

Isn't my proposal vulnerable to an amended version of the argument from *akrasia* already given*?* All we need do is substitute (ii*) below for (ii):

(ii*) Ollie believes that, all things considered, he ought not to carry the piano jointly with Stan.

We can then derive by (iv);

(v*) Ollie does not intend that he carry the piano jointly with Stan.

I make two replies.

First, if *intention* is best construed as relating agents to ordered pairs of object(s) and a type, then *deontic belief* is likewise best construed. Here's why: it is at least possible that there is a perfectly rational God (α) whose intentions are governed, non-akratically, by his beliefs, and (β) of whom (G1) and (G2) above are true; by (α) and (β) God believes that Christ ought to be betrayed by Judas; if this entails that He believes that Judas ought to betray Christ, then by (α), He intends that Judas betray Christ, *contra* (β). So this is not entailed. So deontic belief is best construed on the model of intention, as relating agents to pairs of object(s), and a type. So (ii) does not entail (ii*). And nothing else in our story appears to entail it either.

Second, it is plausible that:

(ii**) Ollie believes that, all things considered, he *ought* to carry the piano jointly with Stan.

Here's why: when one considers what some agent(s) ought to do, one is rationally obliged to consider *only* those things that they have the power to do (on pain of violating "ought entails can"), and *all* of those things that they have the power to do (on pain of being in Sartrean "bad faith"). We've already seen that, if Ollie considers what *Stan and he* ought to do, he cannot (as it were, on pain of bad

faith) "screen off" the possibility that they rescind their joint decision, for it is in their power to do this. Hence, given (ii), it would be not be rational for him to infer from the truism that unrescinded decisions commit their parties that Stan and Ollie ought to carry the piano, what he should instead infer is that they ought to rescind their decision. No like consideration, however, prevents Ollie from inferring from the truism that *he*, Ollie, ought to carry the piano jointly with Stan. Indeed, he is, plausibly, rationally obliged to infer this. For recall that Stan was quite intransigent: for anything that Ollie might say to him, were he to say it, Stan would not change his preference for piano-carrying. So, once the joint decision is made, its remaining in place is *given* to Ollie, as it is not given to *Stan and* Ollie – Ollie has no power to rescind it, or to talk Stan into rescinding it with him, even though Stan and Ollie together have such a power. Hence, when Ollie considers what *he* ought to do, he should (on pain of violating "ought entails can") "screen off" the possibility that he bring about a rescission of the decision made jointly with Stan. So he cannot infer from the truism that he ought to bring about a rescission; all that he can infer from it is that he ought to carry the piano, jointly with Stan. (Confirmation, if it were needed, that *one has to make the best of a bad world*).

If, however, as the foregoing makes likely, (ii**) is true, then given Ollie's rationality, (ii*) is false.

References

Author's paper. 2006. Details omitted for blind review.

Alonso, F. M. 2009. Shared Intention, Reliance, and Interpersonal Obligations. *Ethics* 119*:* 444 -475.

Anscombe, G. E. M. 1957. *Intention*. Oxford: Blackwell.

Armstrong, D. M. 1978. *Universals and Scientific Realism* Cambridge: CUP (two volumes).

Bakeman, R. and Adamson, L. 1984. Coordinating attention to people and objects in mother -infant and peer-infant interactions" *Child Development* 55: 1278-1289.

Boolos, G. 1984. To Be is to be a Value of a Variable (or to be Some Values of Some Variables) *Journal of Philosophy* 81: 430-49.

Boolos, G. 1985. Nominalist Platonism. *Philosophical Review* 94: 327-44.

Bratman, M.E. 1999a. *Intention, Plans, and Practical Reason.* Stanford: CSLI.

Bratman, M.E. 1999b. *Faces of Intention: Selected Essays on Intention and Agency*. Cambridge: CUP.

Bratman, M.E. 2007. *Structures of Agency*. Oxford: OUP.

Bratman, M.E. 2009a. Shared Agency. In C. Mantzavinos (ed.) *Philosophy of the social sciences: philosophical theory and scientific practice*. Cambridge: CUP.

Bratman, M.E. 2009b. Modest sociality and the distinctiveness of intention. *Philosophical Studies* 144: 149–165.

Davidson D. 1990. *Essays on Actions and Events.* Oxford: Clarendon.

Elian, N. *et al* (eds.) 2005. *Joint attention: communication and other minds; issues in philosophy and psychology* Oxford: Clarendon.

Fine, K. 2000. Neutral relations. *Philosophical Review* 109: 1-33.

Frege, G. 1979. *Posthumous Writings.* Eds. H. Hermes, F. Kambartel, F. Kaulbach. Trans. P. Long, R. White. Oxford: Blackwell.

Frankfurt, H. G. 1988. *The Importance of What We Care About: philosophical essays.* Cambridge: CUP.

Frankfurt, H. G. 1999. *Necessity, Volition, and Love.* Cambridge: CUP.

Frankfurt, H. G. 2004. *The Reasons of Love.* Princeton, NJ: Princeton University Press.

Gilbert, M. 2003. The Structure of the Social Atom: joint commitment as the foundation of human social behavior. In F. F. Schmitt (ed.) *Socializing Metaphysics: the nature of social reality.* Lanham, Maryland: Rowman and Littlefield.

Gilbert, M. 2006a. Rationality in Collective Action. *Philosophy of the Social Sciences* 36: 3-17.

Gilbert, M. 2006b. *A Theory of Political Obligation: membership, commitment, and the bonds of*

society. Oxford: Clarendon.
Gilbert, M. 2007. Searle and Collective Intentions. In S. L. Tsohatzidis (ed.) *Intentional Acts and Institutional Facts: Essays on John Searle's Social Ontology*. Dordrecht: Springer.
Hayek, F. A. 1973. Selection from 'Scientism and the Study of Society'. In J. O'Neill (ed.) *Modes of Individualism and Collectivism*. London: Heinemann.
Hossack, K. 2000. Plurals and Complexes. *British Journal for the Philosophy of Science* 51: 411 -43.
Humberstone, I. L. 1991. Two Kinds of Agent-Relativity. *Philosophical Quarterly* 41: 144–166.
Jackson, F. 1987. Group Morality. In P. Pettit, R. Sylvan and J. Norman (eds.) *Metaphysics and Morality: Essays in Honour of J. J. C. Smart*. Oxford: Blackwell.
Korsgaard, C. M. 2009. *Self-Constitution: Agency, Identity, and Integrity*. Oxford: OUP.
Kutz, C. 2000. Acting together. *Philosophy and Phenomenological Research* 61: 1-31.
Lasersohn, P. 1998. Events in the Semantics of Collectivizing Adverbials. In Rothstein S. (ed.) *Events and Grammar* Dordrecht: Kluwer.
Lewis, D. K. 1991. *Parts of Classes*. Oxford: Blackwell.
Ludwig, K. 2007. Collective Intentional Behavior from the Standpoint of Semantics. *Noûs* 41: 355 -393.
McKay, T. 2006. *Plural Predication*. Oxford: OUP.
Moltmann, F. 2004. The Semantics of *Together*. Natural Language Semantics 12: 289–318.
Moore, C. and Dunham, P. J. (eds.). 1995. *Joint attention: its origins and role in development*. Hillsdale, NJ: Lawrence Erlbaum.
Oliver, A. and Smiley, T. J. .2004. Multigrade Predicates. *Mind* 113: 609-681.
O'Neill, J. 1994. 'The Same Thing Therefore Ought to Be and Ought Not to Be': Anselm on Conflicting Oughts. *Heythrop Journal* 35 312-314.
O'Shaughnessy, B. 1980. *The Will: a dual aspect theory*. Cambridge: CUP (two volumes).
Peacocke, C. 1979. Deviant Causal Chains. *Midwest Studies In Philosophy* 4: 123–155.
Pettit, P. and Schweikard, D. 2006. Joint Actions and Group Agents. *Philosophy of the Social Sciences* 36: 18-39.
Pink, T. 1996. *The Psychology of Freedom* Cambridge: CUP.
Roth, A. S. 2004. Shared Agency and Contralateral Commitments *Philosophical Review* 113: 359 -410.
Searle, J. R. 1990. Collective Intentions and Actions. In P. R. Cohen, J. Morgan, M. E. Pollock (eds.) *Intentions in Communication*. Cambridge, Mass.: MIT Press.
Searle, J. R. 2002. *Consciousness and Language*. Cambridge: CUP.
Smith, A. (1981) *An Inquiry Into the Nature and Causes of the Wealth of Nations, Vol. I*. Eds. R. H. Campbell and A. S. Skinner, vol. II of the Glasgow Edition of the Works and Correspondence of Adam Smith. Indianapolis: Liberty Fund. Accessed from http://oll.libertyfund.org/title/220/217458 on 2010-08-30.
Tuomela, R. 1995. *The Importance of Us: A Philosophical Study of Basic Social Notions*. Stanford: Stanford University Press.
Tuomela, R. and Miller, K. 1988. We-Intentions. *Philosophical Studies* 53: 115-137.
van Inwagen, P. 1990. *Material Beings* Ithaca, NY: Cornell University Press.
Velleman, J. D. 1997. How To Share An Intention. *Philosophy and Phenomenological Research* 57: 29-50.