



Article

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From Simple to Composite Agency: On Kirk Ludwig's *From Individual to Plural Agency*

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Abstract: According to Kirk Ludwig, only primitive actions are actions in a primary and non-derivative sense of the term ‘action’. Ludwig takes this to imply that the notion of collective action is a *façon de parler* – useful perhaps, but secondary and derivative. I argue that, on the contrary, collective actions are actions in the primary and non-derivative sense. First, this is because some primitive actions are collective actions. Secondly, individual and collective composites of primitive actions are also actions in the primary and non-derivative sense. Hence, individual action and collective action are ontologically on a par. Ludwig also exaggerates the contrast between individual and collective action by introducing a “sole agency requirement” in his account of the semantics of singular action sentences. However, sole agency is merely typically pragmatically implicated by singular action sentences, not entailed by them. If I say, “I turned on the light”, after we each flipped one of two switches that together turned on the light, then I might be misleading the audience, but what I say is true. Finally, I argue that, contra Ludwig, individuals often have “I-intentions” to bring about an event that can be satisfied even if there are co-agents who bring about the event in the same way.

Keywords: Primitive action; Composite action; Collective action; Action sentences; I-intention; Kirk Ludwig; Ontology of action.

1 Introduction

Kirk Ludwig (2016; 2017a) has provided a detailed and systematic reductive event-causal theory of human agency. It is comprehensive in scope, accounting not only for individual agency but also for collective agency, where this includes

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non-institutional collective action as well as institutional action. In this paper, I will critically discuss Ludwig's treatment of individual action and non-institutional collective action. My focus will be on Ludwig's claims about the ontology of such actions, but I will also touch on issues concerning the semantics of singular action sentences and the typical content of ordinary individual action intentions.

When it comes to ontology, Ludwig's aim is primarily to reveal the ontological commitments that are embedded in sentences about what we do individually and collectively – commitments that he by and large takes to be correct. Following Donald Davidson (1967), he does this by providing and examining regimented event-based paraphrases of action sentences. To illustrate, Ludwig's analysis of the singular action sentence "I turned on the light" would be as follows:

There is an event e and a time t before now such that at t I was a primitive agent of an event f that directly causes e and only I am an agent of e in that way and e is the turning on of the light.¹

An event that an agent is a primitive agent of is his primitive (or basic) action. It is an action that he can perform directly, without intending to do something else by which he brings it about. If my end is to turn on the light, I might (tacitly) reason about what I ought to do to achieve this end, which ultimately results in an intention-in-action to move my body in a certain way. The movement of my body is the event f that I am a primitive agent of. Without primitive actions, the agent's practical reasoning would end up in an infinite regress of reasoning about how to carry out ever smaller intentional actions as a means to his intended end.

That f "directly causes" e means that f causes e in a way that is not mediated by other agents. It would not be true that I turned on the light if the light were turned on as a result of my ordering you to flip the switch. According to Ludwig, it would also not be true that I turned on the light if two switches needed to be flipped to turn on the light and you and I each flipped a switch. This is ensured by the so-called "sole agency requirement" in his analysis – the requirement that "only I am an agent of e in that way" (Ludwig 2017a, p. 15).

Ludwig argues that, strictly speaking, the only actions that exist are primitive actions (here he again follows Davidson [see 2001a]). We can refer to my bodily movement (that is, my action) in terms of descriptions of its consequences, for example by saying that I flipped the switch or turned on the light, but the event of the switch being flipped and the event of the light turning on are not strictly speaking actions. I am an agent of these events, but they are not among my actions. Only the bodily movement is my action.

¹ Ludwig typically also formalises his analyses using predicate logic. I instead merely present them as regimented event-based natural-language paraphrases.

Why not take a more liberal view, according to which each bringing about of such a consequence is also an action of the agent? Although Ludwig thinks that this question “is more verbal than substantive” (2016, p. 84), he takes two considerations to favour his and Davidson’s restrictive view on the use of the term ‘action’ (2014, p. 124–125). First, if we ask when an agent brought about some event, then the most appropriate answer will be the time at which I performed the primitive action (2016, p. 82). Suppose that things are set up so that the light turns on an hour after the light switch is flipped. According to Ludwig, the most appropriate answer to the question of when I turned on the light would be the time at which I flipped the switch rather than the time at which the light came on. Secondly, we regularly distinguish between an agent’s action and that action’s (intended or unintended) consequences. Now, it seems that the action must be identified with either the event of which the agent is a primitive agent (f), the consequent event (e), or both events. But it is only by identifying the action with the event of which the agent is a primitive agent that we can make room for the action-consequence distinction in a systematic way. Hence, this is what we should do (2017a, p. 20).

Turn now to Ludwig’s event analysis of plural action sentences. The sentence “We built a house” can be read collectively (there was one house such that all of us built it) or distributively (for each of us, there was a house that he built).² On the collective reading, interpreted as a collective action sentence, Ludwig’s event analysis of the sentence would be the following:

There is an event e such that for each of us – and no one else – there is a time t before now and an event f such that he is a primitive agent of f at t and f directly causes e and e is the building of a house.

On this analysis, a group doing something involves a single event that is brought about by several individuals, not an event that is brought about by a group agent. Ludwig’s account is thus an individualistic *multiple agents account*, not a *group agent account*. Each member of the group that built the house performed different primitive actions that collectively brought about that the house was built. There is no primitive action that each of them is an agent of, nor one that the group as such is an agent of (as a group agent account would have it). Furthermore, Ludwig argues that there are no collective primitive actions at all. His and Davidson’s restrictive view therefore seems to imply that there strictly speaking are no collective actions. According to Ludwig, “there is nothing strictly speaking that is

² Ludwig argues that each must build a different house for the sentence to be true on the distributive reading. In Section 4, I argue that this is a mistake.

a joint action in the sense in which there are actions in the case of individuals.” (2017a, p. 11). His view is that “the notion of a collective action itself is a *façon de parler*.” (2016, p. 297) In contrast to individual actions, collective actions are actions only in a secondary or derivative sense. While the multiple agents account itself is in line with our common-sense view of collective action, this *eliminative* aspect of Ludwig’s view is not.

The analyses of “I turned on the light” and “We built a house” presented above leave open whether or not the event *e* is brought about intentionally or unintentionally. I might have moved my body and flipped the switch because I mistakenly thought it would turn on the heating rather than the light. Similarly, we might have built a house as a result of blindly following what we mistakenly thought were instructions for building a boat. However, unless otherwise noted, it can be assumed that the individual and collective action sentences that I will discuss are made true by individual and collective actions that are (jointly) intentional. It should be said that Ludwig provides an ingenious account of “shared intention” and collective intentional action, but I will not touch on it here (but see Blomberg 2018).

I am not sure that the best place to look for our ontology of action is in regimented event-based paraphrases of action sentences. But even if it is not, one can learn much from Ludwig’s ambitious and highly systematic analysis of action sentences. Hence, I will simply go along with Ludwig’s general approach, and focus on more specific issues where I believe he gets important details wrong.

First, I will argue that Ludwig’s eliminativism about collective action is unfounded. The conclusions about collective action that he draws from his and Davidson’s restrictive view are mistaken in two ways. As I argue in Section 2, *some* primitive actions are collective primitive actions. More importantly, as I argue in Section 3, when the restrictive view is applied properly, it actually implies that *composites* of primitive actions, and not only their component primitive actions, are actions in the primary core sense.³ Thus, if I am making dinner, then my actions include not only primitive actions such as, say, the drawing of the cutting knife from the knife stand and the slicing of the onion, but also the larger composite intentional action of making dinner of which the primitive actions are components. Many individual actions and most collective actions are such composites.⁴

³ As Santiago Amaya (2017) puts it, “many everyday actions are not causal offshoots of others. Yet they are complex [...]. [B]ecause human agency extends in time, agents have the opportunity to cobble together distinct actions to form larger wholes.” (p. 3) To this we should add: because human agency extends socially, agents have the opportunity to cobble together distinct actions to form larger wholes together.

⁴ Sara Chant (2010) also uses the term ‘composite action’ in this way.

Secondly, in Section 4, I argue that Ludwig exaggerates the contrast between individual and collective action by introducing the sole agency requirement in his account of the logical form of singular action sentences. Arguably, there is no such requirement. It is more plausible that sole agency is an assumption that is typically pragmatically implicated by a singular action sentence, but not entailed by it. If I say, “I turned on the light”, after we each flipped one of two switches that collectively turned on the light, then I might be misleading the audience, but I am not saying something false.

Ludwig also introduces a sole agency requirement into the content of “I-intentions” – that is, into the content of ordinary intentions to perform individual actions. My intention to make dinner tonight would thus not be satisfied if you ended up being a co-agent of the making of the dinner. In Section 5, I argue that this is frequently not the case. Agents often have intentions to bring about an event such that these intentions can be satisfied even if other agents bring about the event in the same way.

2 There are Collective Primitive Actions

In my paper “Socially extended intentions-in-action” (2011), I argue that “[t]he reach of an agent’s basic actions [i.e. primitive actions] is not necessarily limited by an agent’s body surface, nor by another agent’s co-ownership of the action’s physical movement or event.” (p. 343) Furthermore, I argue that some skilled joint actions can be primitive actions for which each participant has an intention-in-action (in John Searle’s [1980] sense). Consider, for example, a joint move involving the tightly coupled bodies of two professional figure skaters as they perform a dance on ice. The bodily movements of such a joint action are arguably normally appropriately caused and controlled by the intention-in-action of each skater. In addition, it seems plausible that neither participant is exercising control over the fine-grained details of the joint move through personal-level practical reasoning and intention formation. If anything is entitled to the label “collective primitive action”, it would arguably be such a joint move. After all, in light of the multiple agents account of collective action sentences, as well as our common-sense view of collective action, a group doing something involves an event or an outcome that is brought about by several agents. Hence, when a group does something primitively, there must be an event that has several primitive agents.

That this sort of skilled collective primitive action is both possible and actual is a natural upshot of the widely endorsed idea that an agent’s primitive actions

are relative to her skills and habits, so that an agent's repertoire of primitive actions can include quite complex activities (Ludwig 2016, p. 80–81; see also Searle 1980, p. 66).⁵ New skills and habits lead to what Ludwig calls *primitive action procedures*, which at least partly operate subpersonally, “below the level of thought” (ibid., p. 80). At most, once a primitive action procedure has been triggered, “we must monitor it for breakdowns” (ibid., p. 81). It is thus these primitive action procedures that allow personal-level practical reasoning to get a grip on the agent's bodily machinery and the wider world.

Now, some of our skills are joint skills. We acquire such skills together with others and can normally also only exercise them together with others. When it comes to a joint bodily skill, we typically lack the primitive action procedure for performing only our own part, in the absence of the normal complementary and overlapping contribution(s) of the other(s). For example, doing your own part of shaking hands with someone in the absence of the other's contribution is very difficult. If one can do it, then it involves a different primitive action procedure than that which shaking hands with someone relies on. Merely doing one's own part convincingly would require the special skill of a mime artist or an actor.

Joint skills would have to be underpinned by *joint primitive action procedures* that at least partly operate subpersonally, below the level of thought. Findings in cognitive psychology and cognitive neuroscience tell us that much coordination in joint action is subpersonal (for an overview, see Butterfill 2018). This suggests that many of us might have such joint primitive action procedures.

In light of these considerations, there is in principle nothing that excludes some primitive actions from being collective primitive actions. The joint move involving the tightly coupled bodies of the two professional figure skaters is a possible real-world example.

This is not in conflict with the core commitments of Ludwig's theory. While Ludwig does say that an agent's primitive actions are limited to her bodily movements and some mental changes (Ludwig 2016, p. 78, 97; see also Davidson 2001a, p. 49), he also submits that it “seems plausible [that] something counts as part of one's body if one can bring about changes in it primitively.” (ibid., p. 78, n. 12) Hence, we can think of each figure skater as having a socially extended body that overlaps with the body of the other (for arguments favouring this characterisation, see Blomberg 2011) – or think of them when they perform the move as having a partly shared body, as it were. Furthermore, Ludwig writes that, on his account, “it is left open what sorts of events we may bring about primitively. This

⁵ Not every activity that is skilled or habitual constitutes a primitive action, since even skilled and habitual activity can involve practical reasoning and control by intentions. Hence, some primitive actions will be “sub-habitual” (Blomberg and Brozzo 2017).

is an empirical, not a conceptual question.” (2016, p. 68, n. 1). Finally, Ludwig describes two variations of a hypothetical example, of which the latter is structurally similar to my characterisation of the figure skaters’ joint move:

Consider a hypothetical case, suggested by Paul McNamara, of Siamese twins, identical twins whose bodies are joined in utero, who share control over a shared arm. Suppose first that each has independent control over the arm. In this case, there is no reason to say that each does not perform a primitive action when each moves the arm, or, say, clenches the fist, independently of the other. [...] In a variant, we might suppose that they cannot move the arm at all without their willing it together. [...] They would each be a primitive agent of it in that case too [...]. (ibid., p. 174–175)

However, Ludwig takes this Siamese twins case to merely “narrow the gap between collective primitive actions and individual primitive actions” (ibid., p. 174). It does not close it. This is simply because Ludwig does not use the term ‘collective primitive action’ as I have used it here. He writes:

if we think of group action as what the group per se is a primitive agent of, or even an agent in any sense, then there are no group actions, because groups are not agents. [...] *In this sense, the primary sense, we will say, then, there are no collective actions at all, only individual actions [...].* (ibid., p. 173, emphasis in original)

At least when it comes to non-institutional groups, I agree with the conditional. However, since the multiple agents account suggests that we should not think of group action as what the group per se is a primitive agent of, Ludwig’s startling conclusion that there are no collective (primitive) actions does not follow. Were Ludwig faithful to his own multiple agents account and to common sense, he ought to say that there *are* collective (primitive) actions in the primary sense, or at least that such primitive actions are possible.

It is also worth noting that Ludwig repeatedly claims that it follows from his account that, when a group does something, there is no agent that has an intention-in-action that is directed at what the group does (ibid., p. 139, 181, 297).⁶

⁶ “When a group acts, it does so because its members do. Its members have intentions-in-action, all directed at *different* individual acts. [...] Even if we say the sum of the primitive actions of its members is the group’s primitive action, it is absurd to suggest that there is any intention-in-action directed at that by anything.” (Ludwig 2016, p. 139)

“[T]here is nothing that strictly parallels primitive action in the case of a group because the closest approximation, what the group does but not by doing anything else, is not something to which any agent directs a *de re* intention-in-action.” (ibid., p. 181)

“When groups act, no agent stands in the primitive agent relation to anything to which the multiple agents bear the agency relation.” (ibid., p. 297)

However, the Siamese twins case, as well as actual skilled joint actions that have multiple primitive agents, shows that this is a mistake.⁷ In such a case, several agents each have an intention-in-action that is directed at what they all do.

My conclusion that there are collective primitive actions is not in substantive conflict with Ludwig's analyses of collective action sentences. My disagreement with Ludwig is about how the term 'collective primitive action' should be used. Should it refer to an event that a group as such is a primitive agent of, as Ludwig himself and a group agent account of collective action sentences suggest, or should it refer to an event that several agents are primitive agents of, as I and a multiple agents account of collective action sentences suggest? By adopting the former use – the use of his philosophical opponents, as it were – Ludwig ends up presenting his theory in a more individualistic and eliminativist light than necessary. Thus, while nothing I have said in this section shows that Ludwig's theory is substantively mistaken, it shows that it is presented in a somewhat misleading way.

3 There are Composite Actions

While there are some collective primitive actions, many collective action sentences will be true even if no such collective primitive action is performed. For example, when we build a house or write a paper together, no collective primitive action needs to be performed. So even if there are some collective primitive actions, there is surely, one might think, an important difference between individual actions and – speaking loosely – most collective actions. Ludwig puts the point as follows:

Where in the individual case we would say that so and so did such and such by doing *A*, where that picks out a primitive action, in the collective case we would say instead that they did such and such by their severally doing various things [...]. (Ludwig 2016, p. 175)

⁷ According to Ludwig (2016, sect. 7.5), the *de re* intention-in-action that is directed at a primitive action is self-referential, so one might think that he should have claimed that the twins were primitive agents of distinct events – that is, events that included the effective execution of distinct intentions-in-action. However, this is not Ludwig's view. According to Ludwig, the event of which one is a primitive agent does not itself involve the intention-in-action. This is in contrast to Searle's (1980) view, according to which an intention-in-action is self-reflexively directed at a process that involves its own execution. (I thank Kirk Ludwig for helpful clarification on this point.)

Since many collective actions do not involve any collective primitive action, it might be tempting to follow Ludwig in thinking that most (even if not all) talk of collective action makes use of a notion of collective action that is merely a *façon de parler*. A useful notion perhaps, but secondary and derivative. As Ludwig explains:

a primitive action is defined as something done but not by doing anything else. We then get a derivative notion of group action as what the group does but not by doing anything else. The team of carpenters builds the house by way of its members doing the various things they do to contribute. [...] Thus, the mereological sum of the primitive contributions of the group's member[s] may count in an extended, or secondary, sense as the group's primitive action. (ibid., p. 173–174)

Against this, I will argue that collective actions are actions in a primary and non-derivative sense of term 'action'. That Ludwig is mistaken in taking the notion to be secondary and derivative is revealed if, instead of contrasting collective action with an individual primitive action, as Ludwig does, we contrast it with individual composite action.⁸ Once individual composite action is brought into view, we see both that collective actions are *bona fide* actions and that the difference Ludwig sees between individual and collective action is spurious.

Consider the action of building a house. This action will be a large complex whole that is composed of many smaller actions: doing the site preparation, building the foundation, constructing the outer and inner walls, fixing electricity and plumbing, etc. These smaller actions will all have been carried out by composites of ever smaller actions, until we arrive at primitive actions such as, say, pulling the switch on the drill, swinging the hammer, or extending the measuring tape. If I built the house on my own, then all the component actions of the larger whole would have been performed by me alone. If we built it together, then some component actions would have been performed by me, others by you. In the former case, the building of the house would be an individual composite intentional action; in the latter case, it would be a collective composite intentional action.

In both cases, *what is done but not by doing anything else* is not a single primitive action, but rather a mereological sum of primitive contributions: a composite action. It would be very odd to say that I built the house on my own by, say, extending the measuring tape, even if it might strictly speaking be true that this is a primitive action that, within the context of a host of other primitive actions,

⁸ As Sara Chant points out, “for the purposes of modeling an account of collective action after an account of individual action, it is important to note that there is an obvious analogy between aggregate [i.e. composite] and collective action – for both are actions that are performed only in virtue of the agent or agents having performed several distinct actions.” (2007, p. 249)

appropriately caused the house to be built. Rather, I built the house on my own by *extending the measuring tape & drawing a line with the pencil & picking up a nail & etc.* Each of these conjuncts describes a primitive action. The phrase “my building of the house”, on the other hand, typically describes the composite of all those primitive actions, not each of them individually, nor a subset of them.⁹ Now, it is not at all unusual that singular action sentences are used to describe composite actions in this way. Indeed, sentences about individual actions that are significant and valuable to us will typically pick out composites of primitive actions (see Dalton 1995).

One might think that Ludwig could accept that singular action sentences typically pick out composites of primitive actions but resist the implication that they do not then (also) pick out a distinct primitive action. At first glance, one might think that the composite of primitive actions can itself be a primitive action. That Ludwig thinks this is suggested by the following analysis of “I built a boat” (2014, p. 124):

There is an event e and a time t before now such that at t I was a primitive agent of an event f that directly causes e and only I am an agent of e in that way and e is the building of a boat.

In discussing which event in this analysis that should be identified as the action, he writes that one candidate “is the event that is expressed by the action verb “to build” [...], and the other is the event (which may be complex) of which I am a primitive agent, which results in the event of boat assembly [...]” (ibid.) According to Ludwig (2016), “complex events are merely sums of simpler events.” (p. 20) When he writes that the event f “may be complex”, I take it that he means that it may consist of several simple events that themselves are actions. Elsewhere, he mentions parenthetically that what one does which directly causes a consequent event “may cover multiple actions” (2016, p. 73). So it seems that Ludwig thinks that a composite of an agent’s primitive actions can itself be a primitive action of the agent in some cases.

However, contrary to what Ludwig’s analysis suggests, the event f may *not* be both complex in the relevant sense and an event of which the agent is a primitive agent. A token action cannot both be a composite action and a primitive action of the agent. Just as a group is not a primitive agent of the mereological sum of the group members’ primitive contributions, neither is an individual agent a primitive agent of a composite action, even if he is a primitive agent of each of its components. When the analysed sentence in question is “I built a boat” or “I built

⁹ As Will Small (2012) points out: “The relationship between an action and a proper part of it (itself an action) cannot be cast in terms of two descriptions of the very same action.” (p. 154)

a house”, the event f is clearly not a primitive action. For some relatively “small” actions that are in some sense “complex”, this might be resisted (suppose that we are talking about the assembling of simple toy models rather than real boats and houses). After all, once one has acquired the skill to perform some complex task, then one has in effect “acquired a new primitive action procedure that encompasses and knits together (and transforms at the same time in the integration) the separate action procedures” that one relied on when one could only perform each component task separately (Ludwig 2016, p. 81). However that may be, there is clearly no such primitive action procedure at work throughout t when I build a real boat or a real house. Without such a primitive action procedure, f cannot be an event of which I am a primitive agent.

Now, there is a sense in which I did the composite action ($A \& B \& C$ etc.) by doing its components ($A, B, C, etc.$).¹⁰ To do a whole on one’s own, one must do each of its parts. When I built the house on my own, I *extended the measuring tape & drew a line with a pencil & picked up a nail etc.* (in part) by *extending the measuring tape*. Ludwig thus need not give up the claim that what an individual agent does but not by doing anything else is always a primitive action. But he should not conclude from this that, strictly speaking, there are no composite actions.

Recall that it is the appropriate answer to a when-question and the possibility of making room for the action-consequence distinction that lead Ludwig to adopt the restrictive view on which events we should count as actions. When I turned on the light (e) by moving my finger (f), the restrictive view says that my bodily movement was the only action performed because, first, it was only when I moved my finger that I turned on the light (even if the light came on later) and, secondly, it is only by identifying the action with what I do primitively that we can systematically distinguish between an action and its consequences. Now, suppose you ask me *when* I extended the measuring tape & drew a line with a pencil & picked up a nail etc. The correct answer would be a specification of the time period during which I performed all these actions. If you – as is more likely – ask me *when I built the house*, then answering by specifying the time t at which I extended the measuring tape would at the very least be inappropriate and misleading, since it would pragmatically implicate that t was the *only* time at which I built the house. The appropriate answer would normally be a specification of the time period from the initiation to the completion of the composite action, or perhaps a list of all the times at which I moved my body in order to build the house. Furthermore,

¹⁰ One way in which I can be an agent of a complex event e (such as a composite action) is by performing a primitive action f , where “ f constitutes e in [...] part” (Ludwig 2016, p. 76).

consider what was my action and what were the consequences of the action. Clearly, the relevant action would normally be the composite of all the primitive actions I performed in building the house on my own, and the house being built was one of the consequences of that composite being performed. It would be arbitrary and misleading to identify any one particular component rather than the whole composite as the direct cause of the house being built. Hence, I take it that in the light of the restrictive view, the composite of the primitive actions that an agent performs is an action *in the primary and non-derivative sense*. The composite is an action in this sense for the same reasons that the movement of my finger is my action when I flip the switch and turn on the light.

It is no different with the composite of the primitive actions that are performed by the carpenters as they build a house together. For precisely the same reasons as in the individual case, this composite should also count as an action in the primary and non-derivative sense: When did the group of carpenters build the house? During the period in which the carpenters' relevant primitive actions were performed. Which event is the action that brought about the consequence that the house was built? Not an event of which any one carpenter is a primitive agent, but rather the composite event that is made up of the relevant primitive actions of all the members of the group. Note that all this is consistent with the restrictive view's kernel idea: "We never do more than move our bodies: the rest is up to nature." (Davidson 2001a, p. 59)

Some might want to resist the transposition of the argument from the individual to the collective case. For example, Stephanie Collins (2013) suggests that the platitude that "Only agents can act" should be interpreted in such a way that it not only entails that "Only an agent can do any component of an action", but also that "Only an agent can do any action as a whole." (p. 235)¹¹ If this were right, then several agents could not perform a composite action. However, the platitude would be too strong on this interpretation. Indeed, collective readings of plural action sentences show that it would not be a platitude. In addition, I think it would be false.

One might believe that only an agent can do any action as a whole if one thinks the following: when and only when a single agent performs all the primitive actions of a composite event f can there be an intention-in-action that is directed at f , and such an intention-in-action is required for tying the component primitive actions together into a composite action. Could this support Collins' strong interpretation of the platitude? The answer is that it could not, because

¹¹ In her recent book, Collins is neutral regarding whether or not an action can have several agents (2019, p. 63, 65).

many individual composite actions are not tied together by an intention-in-action in this way. At no point during t would I have an intention-in-action directed at the composite event f when I build a house, even if I would have an intention-in-action directed at some component part of f .¹² When it comes to some relatively “small” individual composite intentional actions, perhaps an intention-in-action could be sustained throughout the action’s performance (say, throughout the assembling of the simple toy model). The intention-in-action could have a temporally mixed content, representing both the proximal primitive action to be performed now, the primitive actions to be performed in the future, and perhaps also those that already have been performed (see Ludwig 2016, p. 43–44). But there is clearly no such intention-in-action when I build a real house. Indeed, at many times during t , which would span many months or even years, I would not have any intention-in-action (nor any occurrent future-directed intention) related to the building of the house at all.¹³ I would be asleep, say, or busy reading the *Journal of Social Ontology*.¹⁴

There is arguably no relevant difference between individual and collective composite action which licenses a conclusion that only the former count as action in the primary and non-derivative sense of the term. To illustrate the parity of the individual and collective case, I will introduce a technical notion of a *composite primitive agent*. An agent (in the non-technical, non-derivative and primary sense) is a composite primitive agent of an event f if f is a composite event and the agent is a primitive agent of each of f ’s components. We then get the following analysis of “I built a house”:

There is an event e and a time period t before now such that at the end of t , I was a primitive agent of, or a composite primitive agent of, an event f that directly causes e and only I am an agent of e in that way and e is the building of a house.

A group can be a composite primitive agent as well. A group G is a composite primitive agent of an event f if f is a composite event and for each of f ’s components, at least one member of G is a primitive agent of it, and each member of G is

¹² Compare with Ludwig’s claim that, when a group does something, there is no agent that has an intention-in-action that is directed at what the group does (see footnote 6).

¹³ As Ludwig points out: “A temporally extended complex event may consist of a sequence of events that are not temporally contiguous.” (2016, p. 18) The event f can be a composite action that is such a temporally extended complex event.

¹⁴ At a workshop I organized on shared and temporally extended agency in Copenhagen (April 28–29, 2017), Thomas Smith pointed out that the best individual analogue of collective intentional action is temporally discontinuous individual composite intentional action.

a primitive agent of at least one component of f .¹⁵ If G is allowed to have only one member, then the analysis of “I built the house” exemplifies a special case of a singleton group being a composite primitive agent of an event.¹⁶

We can then give the following analysis of the sentence “We built a house”:

There is an event e and a time period t before now such that at the end of t , we were each a primitive agent of, or together a composite primitive agent of, an event f that directly causes e and only we are agents of e in that way and e is the building of a house.

My point here is not that the notion of a composite primitive agent is necessary for understanding individual and collective composite action. I am not trying to argue for a kind of group agent account of sentences that describe composite actions. But the notion helps us see that the individual and the collective cases are perfectly parallel, except that it is possible for an individual agent, but not for a group as such, to be a (non-composite) primitive agent of an event f . For the ontology of action, it does not matter whether or not it is one and the same agent who is the primitive agent of all the various components of a composite action.

Arguably, what matters in the case of composite *intentional* action is that the right psychological connections are in place between different agents or between different time-slices of a single agent. In both the individual and the collective case, these connections organise, coordinate and unify the various component actions with respect to a common end (Rovane 1998, ch. 4; Bratman 2017). No doubt, there are some differences between the individual and the collective case when it comes to which connections that need to be in place. However, there is no reason to think that these make collective intentional action derivative of, or secondary to, individual composite intentional action.

Once we compare collective action with individual composite action, an alleged difference that Ludwig thinks holds between collective *unintentional* action and individual *unintentional* action also withers away. The difference, as Ludwig puts it, is “that we can do something together [even] though, in contrast to individual action, there is no description of it under which it is intentional.” (2014, p. 122; see also 2016, p. 168–169, 176–177) Consider Ludwig’s example of a

¹⁵ A group being a composite primitive agent is a special case of Ludwig’s derivative notion of “a group being an agent of an event” (2016, p. 173), where the event in question is the mereological sum of the members’ primitive action contributions.

¹⁶ According to Ludwig (2016), there are no singleton groups: “I am not a group, for example.” (p. 133) The important point though, is that both groups and individuals can be composite primitive agents.

man who intentionally scratches the back of his left hand in Beijing and another man who intentionally scratches the back of his right hand in Buenos Aires (2016, p. 176). According to Ludwig's multiple agents account, this is a case of collective action since there is a complex event of which they are both agents, namely the event of their scratching the back of their hands. However, there is no description under which this complex event is brought about intentionally. Now, consider a similar case involving just one agent (see also Chant 2007, p. 249–250). Suppose I intentionally scratch the back of my left hand in Beijing, then travel to Buenos Aires, where I, among other things, intentionally scratch the back of my right hand. In this case, there is a complex event of my scratching the backs of my hands that I am an agent of. Scratching the backs of my hands is something I did. However, there is no description under which this complex event was brought about intentionally.¹⁷ The difference that Ludwig sees between the collective and the individual case is nowhere to be found. Insofar as there can be composite collective action that is not intentional under any description, there can also be composite individual action that is not intentional under any description.

Is anything of what I have said here in conflict with the core commitments of Ludwig's theory? Ludwig never explicitly discusses whether composites of primitive actions in the individual case themselves count as actions. Furthermore, with the rare exception of "I built a boat", none of his examples of individual action seem to be composite actions. There is a similar absence of discussion of composite actions in Davidson's work. However, Davidson makes the following observation about "writing the word 'action'": "Some temporal segments of this action are themselves actions: for example, first I write the letter 'a'." (2001b, p. 88; quoted in Small 2012, p. 154, n. 49). This suggests that he takes at least some composites of primitive actions to be actions. Nevertheless, Will Small (2012) claims that Davidson's theory of action is "essentially hostile" to the possibility of individual composite action (p. 154). But I see no reason why a Davidsonian such as Ludwig should not accept that individual composite actions are actions in a primary and non-derivative sense. Nor why he should not accept that collective actions share this ontological status.

Perhaps Ludwig reaches a different conclusion because his starting point is singular action sentences that plausibly pick out just one primitive action

¹⁷ Chant (2010) points toward the possibility of such an action when she writes: "In the 'strong' form of an unintentional composite action, a person may perform several 'simpler' actions that are each intentional (under some description, perhaps), without having an intention to perform any composite action at all." (p. 33)

(“Brutus stabbed Caesar”, “I sang the national anthem”, etc.). With analyses of such sentences in view, he goes on to identify the event of which the agent is a primitive agent as the action. Finally, he generalises this result and concludes that individual primitive actions are all the actions there are. This conclusion then constrains his interpretation of action sentences that describe individual and collective composite actions. However, Ludwig should start out with analysing a wider set of exemplars of action sentences, some of which describe composite actions (“I built a boat”, “We built a house”, etc.), and then proceed to identify what actions are in light of the resulting analyses. With such a procedure, both individual composite actions and collective actions turn out to be actions, even strictly speaking.

In the next section, I turn to a different disagreement where I will make claims that Ludwig could not accept though, at least not without giving up on providing a fully general multiple agents account that applies to all collective action sentences.

4 The Sole Agency Implicatum

According to Ludwig’s sole agency requirement, a sentence stating that an action “was done by x ” entails that x was the sole agent of that action.¹⁸ It is thus part of the truth conditions of the sentence “Kirk wrote the book” that he did not write it together with Ernie. This does not mean that the sentence would be false just because other agents causally contributed to the book’s being written. For example, the sentence could be true if Kirk dictated the book to a typist who entered the text into a computer file. What is excluded is rather that there were co-agents who stood in the same agency relation to the writing of the book as Kirk.

I think that there is no entailment from singular action sentences to sole agency. Following Robert Harnish (1976), I believe that an assumption of sole agency is merely typically pragmatically implicated by such sentences. It is thus often misleading, but not strictly false, to say “Kirk wrote the book” if he wrote it together with Ernie. The clearest evidence that some implicature account must be correct is the fact that the sole agency assumption can be cancelled or defeated. Arguably, I do not contradict myself when I say, “Kirk wrote the book, but he

¹⁸ “In English, “it was done by x ” implies that x was the sole agent of it.” (Ludwig 2016, p. 25)

didn't write it on his own", nor when I say, "Kirk wrote the book. He wrote it with his co-authors". Or imagine the following conversation:¹⁹

A: Why did you not go to the morning meeting?

B: I prepared the lunch.

A: Did you do that on your own?

B: No, C and I prepared the lunch together.

If the sole agency requirement is part of the logical form of singular action sentences, then B is speaking falsely when he says that he prepared the lunch. It would then be appropriate for A to continue the conversation by criticising B for contradicting himself. However, I feel no temptation at all to say that B is not speaking the truth here, nor that B is contradicting himself. This suggests that an implicature view of the sole agency assumption, rather than a logical form view, is correct.²⁰

It is one thing to show by appeal to example that *an* implicature account is correct. It is another thing to give a general account of how – by appeal to what principles and maxims – an audience might calculate and infer the sole agency assumption in various conversational contexts. I do not have the space to discuss proposals for such accounts here, nor do I think anyone has (yet) provided a satisfactory account.²¹ Note, though, that Ludwig will need such a satisfactory account too. This is because he thinks that, when it comes to collective action sentences that are constructed with the adverbial 'with others', it is just a pragmatic implicature that the event does not have any additional co-agents beyond the ones mentioned (Ludwig 2016, p. 163, n. 24). Call this the *limited co-agency implicature*. Thus, the sentence "Kirk wrote the book with Ernie" does not entail that Marija was not also a co-author. That she was not is merely pragmatically implicated in most circumstances. As far as I can see, any problems that are raised for an account of how sole-agency implicatures are calculated will also turn out to be problems for an account of how limited co-agency implicatures are calculated.

¹⁹ Thanks to Mattias Gunnemyr for suggesting this conversational exchange.

²⁰ Note that Ludwig includes a "no one else [but us]" clause in the logical form of plural action sentences. This is a collective analogue of the sole agency requirement. The sentence "My family built a house" would be false, according to Ludwig, if it were not only my family, but also a friend of the family, who together built the house. The critical points I make in this section apply also to this collective analogue: Saying "We built a house" about oneself and one's family might thus be misleading if a friend of the family also participated in building the house, but it would not be false.

²¹ See Harnish (1976), who suggests two different accounts. For critical discussion of both, see Lasersohn (1995, p. 72–73, 79). Ludwig (2016) refers to this discussion in passing (p. 148, n. 2). See also Atlas and Levinson (1981, p. 46), who point out problems with and a possible remedy for one of Harnish's proposals.

Ludwig does not directly criticise the implicature account of the sole agency assumption. However, there is an important indirect criticism. Suppose that sole agency is merely typically pragmatically implicated by the use of singular action sentences. If a collective action sentence is made true by there being one event with several agents, then a collective action sentence entails that for any of those agents, there is an event (that one event) of which he is an agent. This means that the distributive reading of a plural action sentence would be entailed by its collective reading.²² This gives rise to three related challenges for the implicature account (the labels are mine, not Ludwig's):

- *The extreme hubris challenge*: Consider the collective reading of “We built the Great Wall of China”. Without the sole agency requirement, the sentence entails that, for each of the agents of the building of it, he or she should be able to truly say, “I built the Great Wall of China”. But according to Ludwig: “There is no sense in which someone who lays a single brick in the Great Wall of China can truly say, ‘I built the Great Wall of China.’” (2017b, p. 801)²³
- *The collective predicate challenge*: Consider the sentence “We gathered in the park” or “We pair-danced on the ice”. It makes no sense to say of each person that he or she gathered in the park or pair-danced. However, this would be entailed by these sentences without the sole agency requirement (see Ludwig 2016, p. 142, n. 18, p. 148, n. 2).
- *The institutional action challenge*: Consider the sentence “The court found the defendant guilty”, concerning a court with three judges that uses a premise-driven collective decision procedure (see List and Pettit 2011). Without the sole agency requirement, this sentence entails that each member of the court found the defendant guilty. But we know from discussions of the so-called “discursive dilemma” that there is no such entailment (Himmelreich 2017). Indeed, as in the case of “gathered in the park”, it is not even possible for a single judge to find the defendant guilty; only the institution of the court can do so (Ludwig 2017b, sect. 3).

These are serious challenges. Indeed, in light of the institutional action challenge, I think that either the implicature account of the sole agency assumption

²² This entailment is a feature of James McCawley's (1968) analysis of plural action sentences, which Ludwig draws on. Ludwig, of course, thinks that this is a bug rather than a feature.

²³ Collins (2019, p. 103–108) argues that hubris-related considerations support a sole agency requirement.

must be rejected or else the multiple agent account cannot be the right account for sentences about institutional action. With respect to sentences about institutional action, I am inclined to think that a group agent account is correct. If the sentence “The court found the defendant guilty” is about what an institutional group agent is doing, then there is no entailment that each part of that group agent is doing that same thing (to think otherwise would be to commit a fallacy of decomposition). Hence, I take it that this challenge for the implicature account can be turned on its head into a challenge for a fully general multiple agents account.

This response does not work in the case of collective predicates such as “gather” or “pair-dance”. Here there is clearly no additional (group) agent besides the individuals involved. So, a defender of an implicature account like myself must treat sentences with such collective predicates differently than sentences with distributive predicates like write, lift, build, etc. This is a somewhat unfortunate consequence, but it arguably shows that the scope of the multiple agents account is more limited than Ludwig takes it to be, not that the implicature account is mistaken.²⁴

Finally, what about the extreme hubris challenge? Contrary to what Ludwig claims, there is arguably a sense in which someone who contributed to the building of the Great Wall of China can truthfully say “I built the Great Wall of China”. For sure, it would be an extremely hubristic thing to say by someone who merely laid a brick, or even by someone who laid bricks in it all his life. It would also be an extremely misleading thing to say if the audience might be led to believe that the speaker built the whole wall himself. However, it would be just as extremely hubristic and misleading of Kirk to say “I built the Great Wall of China with Ernie,” if he and Ernie had each laid a single brick in the Great Wall of China. According to Ludwig’s treatment of the adverbial ‘with others’, it would nevertheless be true that he did this with Ernie.²⁵ Plausibly, this is also the case when someone says “I built the Great Wall of China”.

My conclusion is that an implicature account of the sole agency assumption is probably correct. The challenges that Ludwig raises for this type of account can all be turned on their heads, becoming challenges to Ludwig’s own account.

²⁴ What about my example of the figure skaters’ joint movement in Section 2? Each of them can truthfully say “I did it”, even though neither can say “I pair-danced”, except where this is elliptical for “I pair-danced with the other”.

²⁵ Ludwig’s treatment of the adverbial ‘with others’ also faces the collective predicate and institutional action challenges: “We gathered in the park” does not seem to entail “I gathered in the park with Mattias”, nor does “The court found the defendant guilty” seem to entail “Ruth found the defendant guilty with Stephen”.

5 I-Intentions and Collective Actions

Suppose that I intend to make dinner tonight. What I intend, it seems to me, would normally be compatible with my both making dinner on my own and making it together with someone else. If Kirk shows up to join me, I do not have to rescind my earlier intention to make dinner. Rather, I can just fill in and elaborate my intention to make dinner, to include Kirk as my co-agent. What I intend is a composite intentional action. In many cases, it will not be important to me whether I perform all component actions myself or leave some of them for others to perform.

Ludwig disagrees. In a discussion of a case with “two assassins each of whom administers a fatal dose of poison to their victim’s soup, though each is unaware of the other”, he writes:

Here there is a temptation to say that they were both successful, for one wants to say that nothing went wrong with their plans. Yet, though each intended that *he* poison the victim, in point of fact they poisoned the victim together, if not intentionally. Neither gets to claim that he did it, that is, is the sole agent of the event in the relevant way. It is not their individual *plans* that go awry. It is rather that whereas each intends to be *the agent* of the death by way of the victim’s consuming poisoned soup, neither is. [...] (This is not to say that it would necessarily matter to either of [them] to have had some unanticipated help were [they] to discover the facts of the matter.) (Ludwig 2016, p. 105)

In this overdetermination case, each assassin is an agent of the victim’s death.²⁶ But according to Ludwig, each nevertheless fails to do what he intended. I will argue that the temptation to say that both assassins were successful should not be resisted.

The reason why Ludwig thinks that I-intentions exclude that there are co-agents involved is presumably the following: The infinitival complement “to *X*” arguably implicitly represents the proposition that I will *X*, that is, that there will be a time in the future when it will be true that “I *X*-ed”. Now, assume the sole agency requirement. Furthermore, assume that people’s reports on what they intend to do typically make the content of their intentions more or less explicit. Given these two assumptions, intentions that people report by saying things like “I intend to *X*” or “I will *X*” will be such that they exclude the participation of other agents of their *X*-ing. At any rate, this is what Ludwig thinks, so, sadly, he thinks that my intention to make dinner tonight excludes that we do it together.

²⁶ Overdeterminers are causes (see e.g. Schaffer 2003).

If I were to have an intention that didn't exclude him as a co-participant that I reported on accurately, I would say something like: "I intend to either make dinner or make dinner together with Kirk tonight".

To see why I think Ludwig is mistaken, suppose, first, that we hold fixed an agent's intention and causal contribution to an intended outcome. We then replace the causal contributions made by other agents who intend to bring about the same outcome with similar non-agential causal contributions. Here, I think it would be odd to say that the agent failed in doing what he intended before the replacement, but that he succeeded after it. If the agent succeeded after the replacement, then he arguably did so before the replacement as well.

Imagine first a variation of Ludwig's case with the two assassins: Suppose that there is only one assassin, plus a somewhat clumsy soup chef. The assassin adds poison to the victim's chanterelle soup and, as a matter of bad luck, the chef accidentally and unknowingly adds a small piece of the death cap mushroom to the soup, thus also poisoning the victim. The assassin and the chef are each an agent of the victim's death. According to Ludwig, the assassin would still fail to do what he intended here, since he is not *the* agent of the poisoning of the victim.

Now, imagine a second variation where the assassin is the only agent involved. In this variation, an unlikely spontaneous chemical reaction instead occurs in the soup, creating another fatal dose of poison. Suppose that the reaction's occurrence is completely independent of the poison added by the assassin: the reaction would have occurred even if no such poison were added. The assassin's poison and the spontaneously generated poison are thus each a cause of the victim's death. Here, unlike in the first variation, the assassin would presumably succeed in doing what he intended according to Ludwig.

But why should there be this difference between the second variation on the one hand and the first variation and the original case on the other? Arguably, the assassin succeeds in doing what he intended in all three cases. If it mattered to the assassin that he and only he poisoned the victim, then he might of course have failed in the first two cases. But in that case, if the assassin were to state in a detailed and explicit way what he intended to do, he would say that he intended to poison the victim and do so alone, without anyone else also being an agent of the poisoning of the victim.²⁷

²⁷ If the assassin said, "I intend to poison the victim", would he conversationally implicate that he intended to be the sole agent of the poisoning of the victim? Arguably, he would normally implicate that he *believes* that he will be the sole agent of it, but not that he *intends* to be it.

6 Conclusion

Ludwig construes individual and collective action as much more different in nature and ontological status than they really are. First, he chooses to define ‘collective primitive action’ in way that only makes sense in the light of a mistaken group agent account of collective action; then draws the conclusion that there are no collective primitive actions. However, in the light of his own multiple agent account, there is a perfectly intelligible sense in which there can be collective primitive actions. Furthermore, as a matter of empirical fact, it is arguably plausible that many of us sometimes perform such collective primitive actions. Secondly, Ludwig thinks that his and Davidson’s restrictive view (on what should be identified as actions) implies that primitive actions are all the actions there are. But the restrictive view actually implies that also composites of primitive actions are actions.

I have defended a pragmatic implicature account of Ludwig’s sole agency assumption. The sentences we use to talk about collective action and individual action are arguably not mutually exclusive – sentences about individual action can be made true by an individual’s participation in a collective action. Similarly, I-intentions can be satisfied not only by actions of which the intender is the sole agent, but also by collective actions. A pragmatic implicature account of the sole agency assumption also suggests that a multiple agents account will fail for some kinds of collective action sentences, such as sentences about the actions of institutions. Ludwig may thus have underestimated the differences between our discourse about small-scale non-institutional collective action (joint or shared agency) and our discourse about large-scale institutional collective action (group agency).

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Bibliography

- Amaya, Santiago (2017): “Basic Actions Reloaded”. In: *Philosophy Compass* 12. No. 9, p. e12435–10.
- Atlas, Jay David and Stephen C. Levinson (1981): “It-Clefts, Informativeness, and Logical Form: Radical Pragmatics (Revised Standard Version)”. In: Peter Cole (Ed.): *Radical Pragmatics*. New York: Academic Press, p. 1–61.

- Blomberg, Olle (2011): "Socially Extended Intentions-in-Action". In: *Review of Philosophy and Psychology* 2. No. 2, p. 335–353.
- Blomberg, Olle (2018): "Review of Kirk Ludwig, From Individual to Plural Agency, Collective Action: Volume 1". In: *The Philosophical Quarterly* 68. No. 272, p. 626–628.
- Blomberg, Olle and Chiara Brozzo (2017): "Motor Intentions and Non-Observational Knowledge of Action: A Standard Story". In: *Thought: A Journal of Philosophy* 6. No. 3, p. 137–146.
- Bratman, Michael E. (2017): "Rational Planning Agency". In: *Royal Institute of Philosophy Supplement* 80, p. 25–48.
- Butterfill, Stephen A. (2018): "Coordinating Joint Action". In: Marija Jankovic and Kirk Ludwig (Eds.): *Routledge Handbook of Collective Intentionality*. London: Routledge, p. 68–82.
- Chant, Sara R. (2007): "Unintentional Collective Action". In: *Philosophical Explorations* 10. No. 3, p. 245–256.
- Chant, Sara R. (2010): "Two Composition Questions in Action". In: Allan Hazlett (Ed.): *New Waves in Metaphysics*. New York: Palgrave Macmillan, p. 27–53.
- Collins, Stephanie (2013): "Collectives' Duties and Collectivization Duties". In: *Australasian Journal of Philosophy* 91. No. 2, p. 231–248.
- Collins, Stephanie (2019): *Group Duties: Their Existence and Their Implications for Individuals*. Oxford: Oxford University Press.
- Dalton, Peter (1995): "Extended Action". In: *Philosophia* 24. No. 3, p. 253–270.
- Davidson, Donald (1967): "The Logical Form of Action Sentences". In: Nicholas Rescher (Ed.): *The Logic of Decision and Action*. Pittsburgh: University of Pittsburgh Press, p. 81–95.
- Davidson, Donald (2001a): "Agency". In: *Essays on Actions and Events*. New York: Clarendon Press, p. 43–61. First published 1971.
- Davidson, Donald (2001b): "Intending". In: *Essays on Actions and Events*. New York: Clarendon Press, p. 83–102. First published 1978.
- Harnish, Robert M. (1976): "Logical Form and Implicature". In: Thomas G. Bever, Jerrold J. Katz and Donald Terence Langendoen (Eds.): *An Integrated Theory of Linguistic Ability*. New York: Crowell, p. 313–391.
- Himmelreich, Johannes (2017): "The Paraphrase Argument against Collective Actions". In: *Australasian Journal of Philosophy* 95. No. 1, p. 81–95.
- Lasersohn, Peter (1995): *Plurality, Conjunction and Events*. Dordrecht: Kluwer Academic Publishers.
- List, Christian and Philip Pettit (2011): *Group Agency: The Possibility, Design, and Status of Corporate Agents*. Oxford: Oxford University Press.
- Ludwig, Kirk (2014): "The Ontology of Collective Action". In: Sara R. Chant, Frank Hindriks and Gerhard Preyer (Eds.): *From Individual to Collective Intentionality: New Essays*. Oxford: Oxford University Press, p. 112–133.
- Ludwig, Kirk (2016): *From Individual to Plural Agency – Collective Action: Volume 1*. Oxford: Oxford University Press.
- Ludwig, Kirk (2017a): *From Plural to Institutional Agency – Collective Action: Volume 2*. Oxford: Oxford University Press.
- Ludwig, Kirk (2017b): "Plural Action Sentences and Logical Form: Reply to Himmelreich". In: *Australasian Journal of Philosophy* 95. No. 4, p. 800–806.
- McCawley, James D. (1968). "The Role of Semantics in a Grammar". In Emmon Bach and Robert T. Harms (Eds.): *Universals in Linguistic Theory*. New York: Holt, Rinehart & Winston, p. 124–169.
- Rovane, Carol (1998): *The Bounds of Agency: An Essay in Revisionary Metaphysics*. Princeton: Princeton University Press.

- Schaffer, Jonathan (2003): "Overdetermining Causes". In: *Philosophical Studies* 114. No. 1–2, p. 23–45.
- Searle, John (1980): "The Intentionality of Intention and Action". In: *Cognitive Science* 4. No. 1, p. 47–70.
- Small, Will (2012): "Practical Knowledge and the Structure of Action". In: Günter Abel and James Conant (Eds.): *Rethinking Epistemology* 2. Berlin: Walter de Gruyter, p. 133–227.