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DOSSIER

Does moral responsibility require mental time travel? Considerations about guidance control

Responsabilidade moral requer viagem mental no tempo? Considerações sobre o controle guia

Beatriz Sorrentino Marques[1]

ABSTRACT

The debate about moral responsibility for one's actions often revolves around whether the agent had the ability to do otherwise. An alternative account of moral responsibility, however, focuses on the actual sequence that produces the agent's action and which criteria it must fulfil for the agent to be considered morally responsible for her action. Mental Time Travel allows the agent to simulate a possible future scenario; therefore, it is relevant for the selection of a course of action. I will argue that implicit prospection is a rudimentary form of Mental Time Travel and that the role that implicit prospection, or non-rudimentary forms of Mental Time Travel, plays in the production of intentional actions helps explain guidance control and, hence, moral responsibility.

Keywords: implicit prospection, guidance control, feeling the future, plan, intention.

RESUMO

O debate a respeito da responsabilidade moral sobre ações frequentemente gira em torno de se o agente tinha a habilidade de ter agido de outro modo. Uma explicação alternativa da responsabilidade moral, entretanto, foca na sequência que de fato emite a ação do agente e qual critério ela deve preencher para que o agente seja considerado moralmente responsável por sua ação. Viagem Mental no Tempo permite que o agente simule um possível cenário futuro; portanto, é relevante para a seleção de um curso de ação. Eu argumentarei que prospecção implícita é uma forma rudimentar de Viagem Mental no Tempo e que o papel que a prospecção implícita, ou formas não-rudimentares de Viagem Mental no Tempo, desempenham na produção de ações intencionais ajuda a explicar o controle guia e, consequentemente, responsabilidade moral.

Palavras-chave: prospecção implícita, controle guia, sensação do future, plano, intenção.

[1] Universidade Federal de Mato Grosso. Av. Fernando Corrêa da Costa, 2367, 78060-900, Cuiabá, MT, Brasil.
E-mail: bsorrentinom@gmail.com

Introduction

Recent discussions in the cognitive sciences have considered the relevance of Mental Time Travel (MTT) to moral agency (Gerrans and Kennett, 2017). Here I consider discussions on *moral agency* in an admittedly modest sense compared to other approaches; my concern is whether moral responsibility can be attributed to the agent for at least some of her intentional actions.[2] Considering that MTT is currently well accepted in the cognitive sciences (Tulving, 1985; Suddendorf *et al.*, 2009), here I will examine whether MTT is a reasonable requirement for moral responsibility for one's action. Gerrans and Kennet (2017) think so. I will argue that implicit prospection, which is not yet explicit MTT, is not in fact a criterion itself; nevertheless, it is relevant to the criterion for moral responsibility—guidance control—and helps explain it.

I start by making the distinction between implicit prospection and explicit MTT and by presenting Gerrans and Sander's (2014) argument for the possibility of implicit prospection. In the next section, I will show that well-known accounts of intentional action are compatible with the requirement that implicit prospection, and sometimes MTT, play a relevant role in the production of such actions. Then, I discuss Fischer's guidance control, its requirements for moral responsibility, and how implicit prospection helps ground moral responsibility for typical humans when they act. My aim is to show that implicit prospection contributes to further explain guidance control's requirements. Finally, in the last section, I consider a possible objection.

Implicit prospection and intentional action

It may be useful to briefly describe Gerrans and Kennett's (2017) account of MTT:

> *Mental time travel simpliciter consists in the simulation of perceptual and sensory aspects of episodes of future experience, for example by imagining the view from a mountaintop, or the taste of taro. Dynamic evaluation consists in the association of affective responses with those simulations in order to aid decision-making (Gerrans and Kennett, 2017, p. 261).*

It has been advanced by simulation theories that MTT is one capacity of the system that enables human constructive episodic imagination (past, future, couterfactuals) in general, as well as mind reading, and episodic conterfactual thought (Michaelian, 2016). According to Michaelian (2016), MTT can be directed to the past or to the future; roughly, the distinction is that, when directed to the past—episodic memory—the subject (constructively) simulates an episode from her personal past, while future directed MTT simulates (imagining) a possible future (often for herself, though this kind of simulating can be nonpersonal). De Brigard (2014) espouses a related view, which considers memory and MTT part of the *Episodic Hypothetical Thinking* system. Schacter and Addis's (2007) view emphasizes the constructive character of memory and the similarities between its neural substrates and those of imagining the future.

Episodic memory[3] allegedly assimilates one's experience of oneself into, say, a memory; i.e., one does not just remember one's childhood home, but one remembers what it was like to be in that place. Autobiographic memory has a strong affective component, the affective valence. Imagining the future is in this sense similar to episodic memory, according to Gerrans and Kennett (2017). Imagining future possibilities presents the agent with alternative courses of action (even consequences of these actions) from which she may choose; MTT is an affectively enriched episodic representation used prospectively (Gerrans and Kennett, 2017, p. 262) that guides action selection as part of action production.

The capacity to project oneself in future actions is essential to form action preferences, a plan. The capacity to *experience onself in the future* is, hence, crucial for settling on an action plan. Thus, the phenomenology of MTT is one of its relevant aspects. It accounts for the distinction between plans that have an affective component, say, there is a distinction between thinking about a friend's plan to travel to Patagonia and thinking about *my* plan. When the agent plans to travel, she imagines herself experiencing her goal, which explains the affective aspect of the plan; she sees herself in the trip.

Phenomenology contributes to explain why MTT such as planning is not motivationally neutral, because, roughly, the agent *experiences herself* in the future, and when one looks to the future instead of the past, the affective valence towards alternative courses of action inclines the agent to act (Gerrans and Kennett, 2017, p. 261); i.e., it is not motivationally neutral.

Given that MTT is said to be exclusively human, MTT's phenomenology is the main aspect that distinguishes human MTT from more rudimentay forms of episodic-like memory found in other animals. In the case of implicit prospection, the phenomenal aspect is no more than *feeling the future*.

[2] Gerrans and Kennett (2017) consider it in the more robust sense of what is required to be a moral agent. I will focus only on the requirements to attribute moral responsibility for one's action. This is justifiable considering a piecemeal approach to the issue, and it may even be reasonable to think that moral agents are the ones to whom responsibility can be attributed for their actions.

[3] Episodic memory may sometimes be used interchangeably with autobiographic memory.

Gerrans and Sander argue for conceptual space for implicit prospection. Roughly, they define what they mean by implicit prospection as follows: "there are forms of prospection that can be guided by implicit simulation of information represented in past and future experience" (2014, p. 701) which are not fully under the agent's executive control. They are particularly concerned about whether these implicit representations contribute to guide action. The method they use to provide conceptual space is showing that implicit prospection, as they conceive of it, is consistent with the available neurocognitive and behavioral evidence, and the hypothesis they defend is that implicit prospection is an early processing stage that enables explicit MTT. Thus, the neural substrates for both these processes would be the same. The advantage of this hypothesis is that it does not postulate that additional cognitive mechanisms or processes are necessary for implicit prospection since it would be an earlier, rudimentary, stage of an already well-accepted process, explicit MTT.

The argument for implicit prospection relies on an analogy to the early development of cognitive capacities that I will not discuss here and on cases of prosopagnosia. The specific kind of prosopagnosic patients Gerrans and Sander (2014) are concerned with cannot explicitly recognize faces, but they seem to be capable to react to familiar faces based on, allegedly, the affective valence (emotional significance) of an implicit representation of the face. Prosopagnosia patients, allegedly, implicitly, but not explicitly, recognize faces, which allows for affective response to plans involving familiar and unfamiliar people, as well as friends and enemies. Gerrans and Sander argue that these are cases of implicit representations guiding action. Moreover, if these patients were to choose dining companions for a future dinner taking into account only their names, Gerrans and Sander (2014) argue that they could probably do so based solely on the affective response to implicit representations, and this would be a case of implicit prospection. To defend that this is a case of implicit representation they argue that "the model of face recognition which structures research in the area depends on the idea that familiarity of faces is computed in order to produce the kind of behavioural effects we are interested in. In other words the relevant information is implicitly represented" (Gerrans and Sander, 2014, p. 706). This is relevant to their point because if the agent can simulate a situation that is not currently happening in her environment to guide which future-oriented actions she will perform, then this is enough to establish that this is a case of prospection, and in the case of prosopagnosics, that this is a case of implicit prospection.

Another evidence is derived from the Iowa Gambling Task (IGT). Gerrans and Sander (2014, p. 707) claim that implicit representation of the punishment schedule (pattern of gain and loss represented by the cards) in the IGT antecedes anticipatory skin conductance response (SCR) and explicit knowledge about the schedule. Gerrans and Sander accept that SCR depends on implicit representation; after a learning period, the subjects' choice of card reflects the punishment schedule even before they can explicitly describe the schedule. Therefore, they claim that implicit representation is the relevant representation in these cases. SCR is considered anticipatory in the sense that it guides future action; therefore, it can be considered as prospection, and they claim that this is a case of implicit prospection.

Furthermore, Gerrans and Sander propose that, in case there is still any doubt, if subjects can merely imagine themselves drawing a card form one of the decks, then this would definitely be an instance of prospection (simulation). Probably if this were done before the subject had explicit knowledge about which are the advantageous decks, then it could be considered an instance of implicit prospection. They conclude that "[...] if an organism can generate and use those implicit representations in the absence of the stimulus she is effectively remembering or imagining the represented object" (Gerrans and Sander, 2014, p. 708).

In addition to arguing that they have made conceptual space for implicit prospection, Gerrans and Sander (2014) claim that this kind of prospection is enough for the agent to *feel* the future[4] and for the cost of alternative courses of action become affectively salient. In such a scenario, processes of implicit representation would determine a rank of (affective) preferences for alternative courses of action, provided that there is a sufficient period of indecision (which may be very short). This explains the development of preferences for implicitly represented future actions and outcomes based on affective responses to these.

If this is correct, then there is conceptual space for the notion of implicit prospection, which may help explain the production of intentional actions.[5]

Intentional action

One prominent characterization of intentional actions[6] considers that they are done for reasons to act—which explain actions—; these reasons contribute to the acquisition or formation of the intention that plays a role in the production of the intentional action (Mele, 1992, p. 109-115). My focus

[4] Gerrans and Sander do not explain what they mean by *feeling the future*. It seems that this feeling may be understood as a thin phenomenal experience that is also an inclination (aversion can also be the case) toward an alternative course of action. "Importantly this affective information surfaces in awareness as a 'feeling' rather than a fully explicit verbalisable thought. It thus represents a form of awareness which is less than fully explicit but which is not absent from consciousness" (Gerrans and Sander, 2014, p. 704).

[5] Here I focus on intentional action performed by human agents.

[6] Henceforth, action should be read as intentional action.

here will be on intentions; more precisely, on action plans taken as a crucial element of intentions (Mele, 1992; Bratman, 1987). In Mele's terms, intentions are motivation-encompassing attitudes that commit the agent to the action (Mele, 2003, p. 28). Moreover, an intention commits the agent, because it is an *executive* attitude towards a plan (Mele, 1992; 2003, p. 27). I believe a connection can be drawn here to MTT and implicit prospection, because it can be said that planning is an instance of MTT or, at least, that MTT contributes to the selection of an action plan.

I wish to advance the thesis that the plan encompassed by the intention that plays a relevant role in the production of an intentional action (Mele, 2003) is an instance of MTT. This would help explain both intentions' future direction and their motivational aspect. The said motivation may be partially inherited from a current desire to do A; nonetheless, it may (partially) be encompassed by the action plan, that is, the prospection itself. The agent allegedly *feels the future* when she plans to do A; i.e., her planning involves experiencing herself in the future she will inhabit as a result of the planned action course. It can be argued that the plan has an affective valence toward the planned future episode in which the agent will find herself, if all goes as planned. In fact, the affective valence of the simulation can affect its phenomenal quality, i.e., how intensely it is felt (De Brigard and Giovanello, 2012). Experiencing herself in the planned future will stress the cost of the agent's course of action; in other words, the affective valence of the possible future will be apparent, which may be affectively positive or negative.

It is reasonable to assume that countless courses of action are open possibilities to the agent at each moment (I will not get into the discussion about whether they in fact are open or just appear to be). If one accepts that MTT contributes to the process of selection of one of these courses of action, then MTT is part of the production of most intentional actions. This is probably not the case for automatic actions, and less so for reflexes, given that these are produced by means of less flexible processes. MTT plays a role when there is at least some minimal indecision about which course of action will be selected (when there is some flexibility), even if just for a very short moment.

This proposal, nevertheless, could strike one as unrealistic, considering that typical human agents do not seem to engage in explicit planning every time they act intentionally. Considering such a scenario makes one think that we would not be able to perform even half the intentional actions agents perform in a day if the agent had to engage in explicit MTT to select each action. This is compatible with Mele's (1992) division of intentions into *proximal* and *distal*. Distal intentions are intentions to act in the future, for instance, an intention to go to the beach next weekend. A proximal intention, on the other hand, is an intention to act now.

Implicit prospection plays the relevant role of planning in the production of most intentional actions, not explicit MTT. Of course, full-blown MTT would play a role in some productions of action, such as the ones in which the agent explicitly plans what she will do; e.g., cases in which she has a distal intention. When an agent has a proximal intention to A, even if it is not salient to the agent that she has such an intention (it is a nonconscious intention),[7] she has settled on an action plan that she is committed to executing. If implicit prospection is relevant to the selection of an action plan, or if it is the action plan itself, then to say that it is part of the intention acquisition/formation is compatible with Mele's (1992) conception of proximal intentions. The question is whether implicit prospection should be seen as part of the selection of a plan or as the plan itself. It seems that projection does not contribute only to the selection of an action plan. The prospection of the course of action selected—the one on which the agent settles—becomes the agent's action plan. This is in itself an instance of either implicit prospection or MTT. Furthermore, by being committed to the plan she is motivated to act accordingly.

If one accepts the arguments above and that implicit prospection is enough to make the cost of a course of action affectively salient when one *feels the future*, then implicit prospection plays a relevant role for planning and action production. As I understand it, feeling the future does not involve any explicit representation; it is a thin experience that inclines the agent toward a course of action. The inclination is the affective preference that guides the action selection, which is a hypothesis that I consider consistent with current knowledge about action selection from intentional maps (Andersen and Bueno, 2002).[8]

Requirements for moral responsibility

In this section, I will discuss the requirement for moral responsibility for actions and the contribution of implicit prospection to this requirement. I will start by explaining the

[7] I accept that intentions can be nonconscious, as well as Mele's (1992, 2009) functional conception of intentions. In his view intentions are conceived of in terms of their functional roles of initiating, sustaining, and guiding intentional actions. This is compatible with the possibility that there may be nonconscious intentions. An ordinary example would be that of an experienced driver who stops at a red light. It does not seem necessary that the driver has to be aware of her intention to stop at all; she may even be concentrated on something else at the time, like a philosophical conversation with a passenger. I consider it uncontroversial that the aforementioned example is an intentional action; therefore, a relevant intention plays a role in the production of the action. See Mele (1992) for a discussion on intentional action.

[8] Andersen and Bueno (2002) argue that intentions are encoded in the Posterior Parietal Cortex, not as detailed information about muscle activation, but as more abstract goals, which is consistent with a cognitive representation of intentions. The intention is an encoded early plan that is later specified in more specific movement plans.

requirement of guidance control. Often the discussion about moral responsibility focuses on whether agents must be free (or whether determinism must be false) in order for agents to be morally responsible. However, this discussion has expanded to include issues such as control.

John Martin Fischer (1994, 2012) has argued that when moral responsibility is considered dependent on free will—considered as the agent's ability to have done otherwise—what is in fact being discussed is a certain kind of control that would allow the agent to have done otherwise in the exact same circumstances (in a close possible world). This kind of control, regulative control, seems to guarantee that the agent can freely choose what she does; she has different alternatives (action courses) open to her, and does otherwise in a close possible world. Fischer claims that the kind of control that guarantees the possibility of having done otherwise is not necessary for moral responsibility and, based on Frankfurt-style cases,[9] proposes that the agent may be morally responsible even if she could not have done otherwise. I accept Fischer's argument that the kind of control the agent needs for moral responsibility focuses only on whether the actual sequence that produces the action[10] is moderately responsive (flexible) to reasons and does not suffer manipulation

Fischer's proposal allows the agent to be morally responsible for her action even if determinism is the case, because it focuses on the actual sequence of events that produces the action (the production of the action), not on alternative possible sequences. According to Fischer, an agent has guidance control over her action if: (1) the actual sequence that produces the action is moderately reason-responsive (Fischer, 2012); and (2) the mechanism[11] that produces the action is the agent's own mechanism (the agent owns it). Moreover, "the agent's action in the actual sequence must be *intentional*, that is, appropriately connected to his reasons" (Fischer and Ravizza, 1998, p. 81).

Criterion (1) means that if the circumstances were moderately different (in a possible world), then the agent would have acted differently. *Moderate* here is vague, and Fischer does not offer clear explanation for what is considered moderate. What is clear is that an agent who would only modify her behavior if circumstances were extreme, say, at gunpoint, is weakly reason-responsive, while and agent who would modify her behavior in the face of slightly different circumstances (reasons to act) may be considered strongly reason-responsive. From this one can conclude that the agent does not have to be strongly reason-responsive to have guidance control, but she cannot be too weak on her reason-responsiveness in order to have this kind of control.

Reason-responsiveness is considered in the light of the mechanism (process) that produces action, which does not have to be an explicit mechanism such as practical reasoning. If the mechanism is held fixed across a range of possible scenarios (possible worlds) which provide good (sufficient) reasons for the agent to act differently, the agent recognizes these reasons (Fischer, 2012, p. 188), and if the mechanism would produce a different action *for the reasons provided*, then Fischer considers the mechanism reason-responsive. Active or conscious deliberation is not required for reason-responsiveness; the process may be implicit (Fischer and Ravizza, 1998, p. 64). It is important to note that this is a capacity of the actual sequence mechanism (not a power of the agent), and that mechanisms may vary in degrees of reason-responsiveness (Fischer, 2012, p. 187).

There are two important elements in Fischer's reason-responsiveness: reason recognition and reason reactivity. Reason recognition requires that the agent should be able to recognize the reasons there are to act. Reason reactivity requires that the agent should choose to act in accordance with the reasons she recognizes: "Reasons-reactivity is the capacity to translate reasons into choices (and then subsequent behavior)" (Fischer, 2012, p. 187). I do not take choice to be necessary; I consider it enough that the mechanism produce the action in accordance with the abovementioned reasons to act (2012, p. 187).

According to Fischer and Ravizza, reason receptivity must be strong, meaning that "the agent would recognize what reasons there are, given that the actual kind of mechanism operates" (1998, p. 69). In fact, the mechanism should not be evaluated case by case, what Fischer and Ravizza (1998, p. 71) have in mind is that the mechanism should exhibit a pattern of (actual and hypothetical) reason recognition minimally grounded in reality.

Criterion (2) has to do with cases of manipulation. It does not concede that the agent has guidance control in cases in which the mechanism that produces the action is manipulated, which may be the case in sci-fi scenarios that allow for crafty neuroscientists, alien chips, demons, and the like. The criterion, however, also emphasizes that the actual sequence

[9] I consider Frankfurt-style cases the ones in which the agent could not have done otherwise (Frankfurt, 1969). There are several examples of such cases in the literature, which may be roughly simplified as cases in which the agent has a morally relevant choice: (1) to do A, or (2) to do B. In the imaginary scenario there is an external manipulator, for instance a demon, that would block the neural mechanisms that would allow the agent to choose doing A if the agent is ever inclined to do so. Nevertheless, the agent is not inclined at all to do A, and just does B. The agent in question could not have done otherwise, but she still seems to be morally responsible for her action, because the demon never interfered in the production of her action. Several complications can be added to this kind of scenario, but I believe that enough has been said to clarify the argument that moral responsibility does not require the ability to do otherwise. For a discussion about Frankfurt cases and kinds of freedom see Fischer (2008).

[10] When referring to the actual sequence, Fischer states that it "issues in action". However, considering that I accept a causal explanation of action, I will use the expression *produces action*.

[11] By mechanism, Fischer means process (Fischer, 2012, p. 10).

that produces the action results from the agent's own mechanisms. Together, satisfying the two criteria adds up to the agent having guidance control over her action, which means she is morally responsible for her action.

The conditions for moral responsibility focus on the production of the agent's action, on the actual sequence. In other words, whether the process that produces the action suffered any worrisome form of manipulation, whether the process is responsive to reasons. Any consideration about de cognitive capacities of the agent that make these possible as a condition for moral responsibility would fit in this part of the discussion.

This is where one may wonder about MTT. If my claims about implicit prospection in the previous section are accepted, then one may conclude that the agent's ability to feel the future, a prospection that has a phenomenal component (but does not involve any explicit representation) helps explain Fischer's guidance control. In fact, it seems relevant for both criteria 1 and 2. I will discuss these in the following.

It is reasonable that the mechanisms that produce action depend on implicit prospection, such as cases in which deliberation is not explicit. When an agent settles on a course of action, she relies on implicit prospection, at least, to estimate possible courses of action, which provides her with reasons to act. This shows its contribution to criterion 1; prospection aids reason-responsiveness to different possible future contexts—which is in accordance with the weight Fischer puts on counterfactual sets of reasons. Of course, not every step of this process has to be explicit to the agent; for instance, when I see traffic on my favorite route home, I feel a little annoyed and I immediately take the longer way, which is usually free of traffic. I do not have to explicitly represent the pros and cons of each route, nor do I explicitly deliberate before I settle on changing routes. The process seems to happen much faster, based on previous times when I was stuck in traffic on that route, which were irritating and unpleasant experiences. On the other hand, I could have explicitly considered the pros and cons remembering the times that I took that route despite the traffic, and I would have recalled the experienced of being stuck in traffic, according to the MTT theory, which would probably have made me turn away from that route as fast as I could.

The mechanism does not have to be practical reasoning. In fact, Fischer and Ravizza (1998, p. 86) defend that their account applies to nonreflective mechanisms just as well as long as they are reason-responsive. In their view, the same kind of mechanism can produce different actions in the face of different sufficient reasons to act that the agent recognizes. Even a pattern of reason recognition can be compatible with nonreflective mechanisms. The recognition of reasons does not mean that the agent has to explicitly weight her reasons or ask herself what to do. Fischer and Ravizza consider that it may be the case that actions produced by nonreflective mechanisms are produced by the agent's *traits*, which are not reason-responsive; nevertheless, in the history of the action, guidance control can be found in the formation, retention, or expression of the trait. The latter is sufficient to consider the mechanism reason-responsive.

There is, however, more to implicit prospection's contribution to guidance control. This leads to criterion (2). In Fischer's account, the mechanism that produces the action is the agent's own mechanism if she has some beliefs about her agency's effects in the world. In a sense, this means that the agent takes responsibility for acting as she does (see Fischer, 2012, p. 187). According to the MTT theory, it is not enough for the agent to semantically remember the past or think about the future; if the agent cannot think of these in an autobiographical context, then it will fail to have affective significance to her (Gerrans and Kennett, 2010, p. 598). This is the case because the autobiographical context gives meaning to the agent's decisions and plans, which make it *her* plan. It is not enough that one course of action is selected among possible alternative courses of action; the agent needs to stick to it. The phenomenal relation to her decisions and plans bound her to them.

Planning, taken as this kind of projection, commits the agent to acting according to the plan when the time comes, because she has the experience of inhabiting the future she plans, therefore, she feels connected to her plan and settled on executing it; it is *her* plan (Gerrans and Kennett, 2010, p. 604). The plan is made taking herself as temporally extended into consideration (2010, p. 605), as well as the affectively positive valence of what the plan will produce for her. Boyer (2008) considers that the key element to explain MTT's adaptive value is MTT's contribution to decision-making in planning, for it allows the agent to restrain from immediate rewards to accomplish (possibly through cooperation with others) future rewards that are worth waiting for by making the affective valence of possible future situations immediately present to the agent. The affectively positive valence would motivate the agent to stick to a distal plan, but also an affectively negative valence of a future consequence from immediate reward may make the agent stick to a plan that includes refraining from the immediate reward.

The emphasis placed on the agent's connection to her plan helps account for what it means for the mechanisms that produce the action to be her own. This shows why cases of manipulation in which the manipulator (neuroscientists, demon, etc.) tampers with or renders ineffective the agent's action selection process—which can be implicit prospection, explicit decision-making, or planning—take away the agent's guidance control.[12]

Aside from the obvious fact that someone else interfering with the process that produces action would eliminate guidance control, I claim that manipulation of this kind would take away the agent's feeling of ownership of her plan,

[12] This may not be the case in Long's (2004) case.

her commitment to act according to it, and her feeling of ownership of her action. These are part of MTT's, and implicit prospection's phenomenology, so if the agent does not follow her plan, the production of the action is not accompanied by the phenomenal feeling of ownership inherited from the action plan. If the agent does not simulate her future (implicitly or explicitly) in order to select an action course, she does not own the action plan, nor feels that it is her plan, and she can only be artificially committed to acting, i.e., through manipulation. Nevertheless, in the latter case, she would not have guidance control over her action, nor can she be held morally responsible for her action, according to the view accepted here.

If all of the above is correct, then even a modest theory of moral responsibility benefits from, at least, implicit prospection, for it has been explained above that implicit prospection helps explain and contribute to Fischer's requirements for moral responsibility. It also contributes to the motivational aspect of action production. Therefore, at least implicit prospection is relevant to moral responsibility, i.e. a form of prospection is part of the agent's production of action whenever she has guidance control over her action.

Possible objections

It could be claimed that I am adding too many criteria, thus, setting the bar too high for moral responsibility. But this does not seem to be a strong objection, because I am not adding any requirements for moral responsibility. I have simply claimed that if one accepts that guidance control is the condition for moral responsibility, then one may need to accept that MTT or implicit prospection plays a relevant role in this kind of control.

Another objection may be that theories that require the agent to have alternative possibilities (the ability to do otherwise) in order to have moral responsibility would also encompass MTT or implicit prospection; therefore, there is no reason, from MTT alone, to focus on guidance control. This may be true. If the agent deliberates or chooses from alternative possibilities, it could be said that the same processes of MTT, or implicit prospection, are in some sense relevant to her choice.

The affective valence of the simulated alternatives, however, would have to be different. Consider that the agent projects herself in a future where she decides to do A instead of B, and the projection has an affectively positive valence, whereas when she projects herself in a future where she does B, it has an affectively negative valence. This explains why she does A. Now, in a possible world where the agent does B instead of A it seems that she would have to have the opposite affective responses and a different psychological constitution that would ground such difference. If this is correct, the agent would not in fact act otherwise in a close possible world, only in a far enough one to allow for so many differences from the actual world. Therefore, MTT may pose more challenges than solutions to alternative possibility theories.

Conclusion

My aim has been to show that MTT and implicit prospection help shed light on the requirements for moral responsibility in human agents, if one accepts that guidance control is the necessary and sufficient requirement for moral responsibility. I have claimed that implicit prospection and sometimes MTT in the form of planning play a relevant role in the actual sequence that produces the agent's action, therefore contributing to the agent's guidance control and moral responsibility.

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