

Mental acts

There are two different ways of applying the term "mental act", which can be distinguished as the *actualization* and *agentive* senses. In the actualization sense, *act* is contrasted with *potentiality*. In Aristotle's use of the term, potentiality refers to "a principle of change, movement, or rest" in oneself or other entities (*Metaphysics*, Θ, 1049b 7). An act, in contrast, refers to the actual expression of this potentiality. For example, a seeing is an act, while the disposition to see is the potentiality associated with it (*Metaphysics*, Θ, 1049b21). Mental acts, in this sense, are synonymous with "mental events", i.e. with "what happens in a person's mind" (Geach, 1957, 1). In the agentive sense, in contrast, a mental act is the process of intentionally activating a mental disposition in order to acquire a desired mental property. Discussion of the scope of mental acts is complicated by the fact that the distinction between active and passive events is even less clear in the case of the mind than it is in the case of the body. A mental event of a given type (such as imaginings, or rememberings), may qualify as a mental action on one occasion, and not on another. A thinker can think about John, memorize a telephone number, mentally solve a math problem; but to what extent are these mental 'doings' under her control? Are these merely mental operations that are passively (i.e. associatively) triggered in the agent by the context? If not, in what does the agentive involvement of the mind consist?

I - Mental agency as sensitivity to reasons

A common answer is that agency consists in the capacity to rationally respond to practical reasons, and allow one's behavior to be guided and justified by them. Practical reasons are typically construed as inferences based on various beliefs and desires, which the agent normally offers, when asked about her reasons for acting. An agent desires to visualize Mary's dress at the gala dinner, believes that she has the ability to do so, and, as a result, forms the intention to conjure up Mary's image at the gala dinner. The agentive aspect of mental actions, as of bodily ones, thus depends on the association between motivation, knowledge, on the one hand, and changing conditions, on the other: a behavior, or a mental process, is agentive when it is sensitive to reasons, that is, : able to flexibly adjust its means and goals to varying constraints or opportunities.

Having instrumental reasons to perform a mental action, however, should not lead one to ignore a disanalogy with bodily action. In bodily actions, the overarching norms that govern the inferences involved are the *utility* of a given outcome and the comparative

effectiveness of the alternative means-ends relations available. The fact that an agent acts on the basis of false beliefs, or on the basis of a false inference, does not constitutively impair the ability of this agent to act. Mental actions, on the other hand, also respond to constitutive norms: epistemic norms apply to the objective relations between informational states (and their propositional contents), and determine the success conditions for these actions. Directed rememberings, plannings, reasonings, for example, would not exist if there was no systematic, objective connection between various informational or cognitive facts. A usual satisfaction condition for an act of remembering is the truth or correctness of the memory retrieved, assuming that the information originally committed to the memory was correct; and the satisfaction condition for an act of planning or an attempt at reasoning is its coherence and relevance, assuming that the problem or situation has been correctly represented, etc.

Granting that epistemic norms are constitutive for mental actions, even moderate biases in recognizing epistemic norms result in systematic failures at the associated mental tasks.

This normative structure, however, seems to impose constraints on agents capable of mental action. An agent sensitive to epistemic reasons, i.e. to evidential rationality, should be able to grasp that an epistemic norm differs from a mere instrumental norm of appraisal because it is *less concerned with effects, than with how cognitive causes lead to these effects* (Sosa, 2007). In other words, a mental agent must be able not only to evaluate the outcomes of her mental actions, but also to consciously recognize that her ability to recognize epistemic norms is crucially involved in these actions; mental agency, on this reading, involves an ability to take responsibility for one's mental performances (in contrast with the case of bodily agency, where an agent can deny responsibility for failing to execute what she wants to). For example, an agent who has evaluated her memory as non-reliable cannot be confident that the proper name she now seems to have recovered is correct. The claim that epistemic norm awareness is central to mental actions does not necessarily entail that bodily actions never involve an epistemic type of normative awareness. Rational decision needs to be sensitive to the truth of the beliefs on which one's decision is based. The point is that a mistaken belief, in this case, will not affect the agentive status of the subsequent action.

To summarize: the specific way in which rational evaluation operates in mental action seems to play a defining role in mental agency: mental agency is a domain structured by constitutive epistemic norms, where agents form a decision to act based on their sensitivity to these norms, in addition to a sensitivity to instrumental reasons, which inspire the specific

goals they pursue.

Two objections, however, can be made to this view. First, how could the conclusion of a practical syllogism move an agent to act and guide her action to the goal? As many causal theorists have claimed in the case of bodily action, the proximate cause of an action needs to be distinguished from the set of inferences preceding it (Brand, 1984, Mele, 1992). Agency is essentially tied, on this alternative view, to the fact that the action is initiated, and executed, in a specific way, rather than to its inferential, rational background. Consider the case of impulsive, or emotional actions (Hursthouse, 1991): an agent may voluntarily perform actions that go against her rational preferences. This is also true in the realm of mental agency: a subject can search her memory even when she knows that she should not trust it; or allow herself to imagine and plan for a (virtual) "Second Life" while knowing that this activity violates her epistemic, moral, or instrumental norms. The sensitivity-to-reasons account seems to be ill-equipped to deal with these cases of common irrational, or akratic mental actions, where agents act against their best judgment.

The second objection has to do with the fact that a practical inference approach to mental action requires agents to have a conceptual grasp of their goals and means, and, in particular, of the fact that they entertain beliefs, desires and intentions, or that certain cognitive causes lead to certain effects. This condition seems to be arbitrarily restrictive: agents may certainly select ways of acting that worked in the past, as in the circular reactions described by developmental psychologists, without having to represent them conceptually. Certainly a child can search her memory for a name before she finds herself able to make explicit her practical reasons for doing so, by relying on a conceptual knowledge of the mental. Moreover, recent work in comparative psychology suggests that non-human primates are also able to selectively search their memory. They can correctly predict whether they can remember, after a delay, the color or shape of an earlier stimulus in order to decide what to do. (Hampton, 2001). Granting, however, that no evidence for mindreading abilities has been found in macaques, they must do so without representing the task through mental concepts, such as belief, desire, memory, etc.

In sum: granting that at least some mental actions are in the repertoire of non-humans and human children, a practical inference (or sensitivity to reasons) approach does not seem to furnish a necessary condition for mental agency. Moreover, this approach does not account for executive force, and therefore does not provide a sufficient condition either.

II - Mental agency as voluntary control

An alternative view to the practical inference approach, then, is to emphasize that mental agency, just like bodily agency, involves a trying or a willing (Locke, 1689, O'Shaughnessy, 2000, Ginet, 1990, Proust, 2001, Peacocke, 2008). In bodily and mental cases, trying may only involve a change in posture or mental set; or it may aim to attain a distal goal. A mental trying may thus constitute the action (as when trying to concentrate), or be, in addition, aiming at some distal effect (as in trying to remember a name). In this latter case, the outcome is *mediated*, i.e. *brought about* by enabling cognitive operations, on which the agent has no personal control.

The "trying" or "executive" view has several attractive features. First, it provides a unified causal account for mental and bodily agency (and bodily agency always has a mental component): trying to produce a bodily, or a mental change, represented as the goal of an action, is what constitutes, or in mediated cases, contributes to cause, the desired change to occur. Second, it applies to impulsive actions, i.e. actions that cannot result from prior rational deliberation, and to "negative actions", i.e. those that involve inhibiting a disposition to act, such as wanting to avoid thinking about John. Third, it is compatible with nonconceptual forms of action representation, for you can try to attain a goal that is nonconceptually represented. Finally, the willing or trying can account for the distinctive experience of agency that one has when one tries to remember, or tries to imagine, in contrast with passive cases (Peacocke, 2008, Proust, 2009).

The nature of trying

The view, however, has raised various doubts and objections. It has been blamed for failing to assign a real explanatory role to willing, and to make its nature clear (Brand, 1984). Research in the neurosciences of action, however, provides a response to this worry, by showing that "trying to *A*" has a cognitive role and a physiological realization. When *A* is bodily, the activation of a premotor area in the contralateral brain hemisphere suggests that "trying" corresponds to preparing the action, by setting in motion a program of sequential movements selected in the repertoire. A copy of the command, or 'efference copy', subserves the feeling of agency in voluntary action: the ability to predict subsequent perceptual and motor effects seems to explain contrasts in the phenomenology of voluntary action, in contrast with passive movement (Haggard, 2003). In the case of mental actions, one can suppose that some equivalent of the 'efference copy' allows subjects to have a sense of mental effort, allowing them to distinguish the case of a spontaneous from a directed recall (Proust, 2006, Peacocke, 2008).

Is trying an independent mental action? The infinite regress objection

Another traditional puzzle concerns the metaphysical status of 'trying' or 'willing': is it itself an independent mental action? For some of the proponents of the view (Locke, 1689, Peacocke, 2008), the answer has to be positive; the main interest of introducing the notion of a mental action is, for them, to lay bare the spring of agency, rather than define it. Mental agency explains bodily agency; nothing can in turn explain the more primitive mental action of trying or willing to *A*: "one can merely observe" that it consists in initiating within oneself a movement or a directed thinking episode. This version of the "trying view", however, seems to be open to a regress argument, which Ryle expressed in this way:

"So what of volitions themselves? Are they voluntary or involuntary acts of mind? Clearly either answer leads to absurdities. If I cannot help willing to pull the trigger, it would be absurd to describe my pulling as "voluntary". But if my volition to pull the trigger is voluntary, in the sense assumed by the theory, then it must issue from a prior volition and that from another *ad infinitum*." (Ryle, 1949, 67¹)

Regress can only be involved, however, if an action needs to be *caused* (rather than *constituted*) by a prior trying. This is Locke's argument:

"A man is not at liberty to will, or not to will, because he cannot forbear willing: Liberty consisting in a power to act, or to forbear acting, and in that only". (1689, II, §24, 246)

The structure of the will thus precludes the possibility of willing to will, or trying to try:

"The will is conversant about nothing, but our own Actions; terminates there, and reaches no farther; and Volition is nothing but that particular determination of the mind, whereby, barely by a thought, the mind endeavours to give rise, continuation, or stop to any action, which it takes to be in its power". (1689, II, §30, 250)

What is, then, the cause of a willing? A motivation or a desire to act, are obvious candidates.

Illusory trying

Another conceptual difficulty concerns how we are to pry apart failed from illusory trying. Trying to do *A*, and failing, according to this definition, is still acting. An agent may fail, on a given occasion, to reach her proximal goal (to move, to concentrate), or her distal goal (to illuminate the room, to capture the argument) in spite of her efforts. This gives rise to a puzzle: if someone mistakenly believes that she tries to do something that, in fact, is impossible for her to do, such as speeding up her heartbeat, and either fails to produce the expected change, or obtains it through deviant causes, shall we say she has nevertheless

¹ See also H.A. Pritchard, 1949, p. 102.

acted? How can we account for the agent's sense of trying while preserving the truth of the matter? McCann (1974), observing that the heartbeat rate can be sped up by the excitement produced by the false expectation, proposes strengthening the condition for trying through a voluntary control condition (VCC):

VCC: Trying to A necessarily involves an actual capacity of exerting voluntary control over a bodily or mental change.

Having voluntary control means that the agent knows how to, and is normally able to, produce a desired effect; in other terms, the type of procedural or instrumental activity that she is trying to set in motion must belong to her repertoire. Even though interfering conditions may block the desired outcome, the agent has tried to act, if and only if she started to exert voluntary control in an area in which she is able to act. An important consequence of McCann's suggestion is that the agent has no authority with respect to the actual content of what she tries to do. All she knows is that she seems to be trying to perform action *A*.

Are there mediated mental actions?

It is compatible with VCC that bodily or mental properties that seem *prima facie* uncontrollable, such as sneezing, feeling angry, or remembering the party, can be indirectly controlled by an agent, if she has found a way to cause herself to sneeze, feel angry about *S*, or remember the party. She can then bring it about that she feels angry about *S*, or that she remembers the party. Are these *bona fide* cases of mental action? The mediated kind does not seem to belong to mental action, according to Mele (2009), because "the things that agents can, strictly speaking, try to do, *include no nonactions*" (INN).

All the mental events listed above, however, seem to violate this INN condition, by including nonactions. Take Mele's task of finding seven kinds of animal whose name starts with 'g' (Mele, 2009). There are several things that the agent actively tries to do: exclude word names not beginning with 'g', make a mental note of each word beginning with 'g' that has already come to mind, keep her attention focused, etc. Her retrieving 'goat', however, does not qualify as a mental action, because 'goat' came to her mind involuntarily, i.e. was a nonaction. Bringing it about that one thinks of seven animal names is intentional and can be tried, while forming the conscious thought of seven individual animal names is not (Mele, 2009).

Is mediated epistemic agency conceptually incoherent?

Another serious conceptual problem is raised when a thinker's mediated goals are epistemic attitudes with prespecified contents (Williams, 1973, Dorsch, 2009, Mele, 2009). Let us suppose that a thinker wants to believe that her partner is faithful and is ready to resist potentially conflicting evidence, if required. Granting that mental actions respond to epistemic norms, a mental action that would include, as a subgoal, fiddling with the epistemic norms associated with its type, would no longer qualify as a mental action *of that type*. This is particularly clear with believing and judging: If one manages to bring oneself to will *P* to be true (ignoring potential conflicting evidence), then one no longer *believes* or *judges* that *P*, for believing or judging entail that one uses all the unbiased evidence available in forming one's belief or judgment (Williams, 1973). The self-manipulative case in which a subject wants to believe *P* should, rather, be analysed as a distinctive propositional attitude: an accepting, which, in contrast to believing and judging, qualifies as a mental action (Cohen, 1992, Engel, 1998).

In sum: the difficulties of the executive view are not insuperable. They point to the importance of making the notion of control more precise, and of allowing cross-fertilization of the executive and rationalizing views. A third type of account of mental agency tries to instantiate such a junction.

III - Mental agency, "Evaluative control", and metacognition

A third group of theories accepts the executive, "trying" aspect of mental actions, but emphasizes the constitutive role of self-evaluation in mental agency. Proposals in this group agree that a sense of mental agency needs to incorporate the constitutive-normative commitments and decisions taken by an agent. They diverge, however, on whether self-evaluation constitutes an alternative case of agentic control, irreducible to object-oriented actions, or is, rather, an ingredient of every mental action.

Evaluative control

A basic assumption of this view is that some attitudes, like beliefs and intentions, constitute answers to questions, or to sets of self-addressed questions (Hieronymi, 2009). While theories of mental agency focus on "managerial control", (acting on attitudes for a purpose, just as we act on objects and situations), "evaluative control" is an alternative form of agency, associated with *commitment* – seen as a product of attitude evaluation. For example, if one forms a belief that *P* after raising the associated question of whether *P*, one

is committed to a positive answer to the question of whether *P*. In this analysis, epistemic control does not mean that one aims at entertaining selected belief contents; it means, rather, that one is ready to form and revise one's judgments in the light of one's answer to one's self-directed questions. Evaluative and managerial control, on this view, normally work in tandem, although evaluative control is seen as the basis for mental agency.

Mental action monitoring

A worry with the 'evaluative control' view is that epistemic or conative evaluative control generally fails to be voluntary. The term of 'control', as usually understood (Nelson & Narens, 1994), does not apply to the evaluation of one's epistemic or conative attitudes; a more adequate term would rather be 'monitoring'. The alternative, 'metacognitive' view takes self-evaluation to be a necessary ingredient of any mental action, and to be involved in two different steps. First, a mental action cannot be rationally tried without an agent having first appreciated its feasibility: 'Self-probing' is an operation allowing a thinker to estimate whether this token of mental action can be executed, given the mental resources available to her at that moment ("Am I able to I remember this word?") Is a question that must be answered before searching one's memory). Second, "post-evaluating" allows an agent to assess retrospectively whether her mental action has been successfully completed (Is this word the one I was looking for?). Neither question need be articulated conceptually; the reflexive structure of command and monitoring, and the intervention of epistemic feelings, allow an agent to conduct mental actions on the basis of non-conceptual contents (Proust, 2009).

In contrast with the evaluative control view, it is not claimed that the evaluative interventions of an agent can be made independently of a mental action. But, in contrast with the "simple" executive view, the metacognitive view allows mediated mental actions to be included within the scope of mental agency. Mental agency surfaces in the ability to appraise the fluency and availability of the very cognitive processes on which "bringing it about that *P*" depend.

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