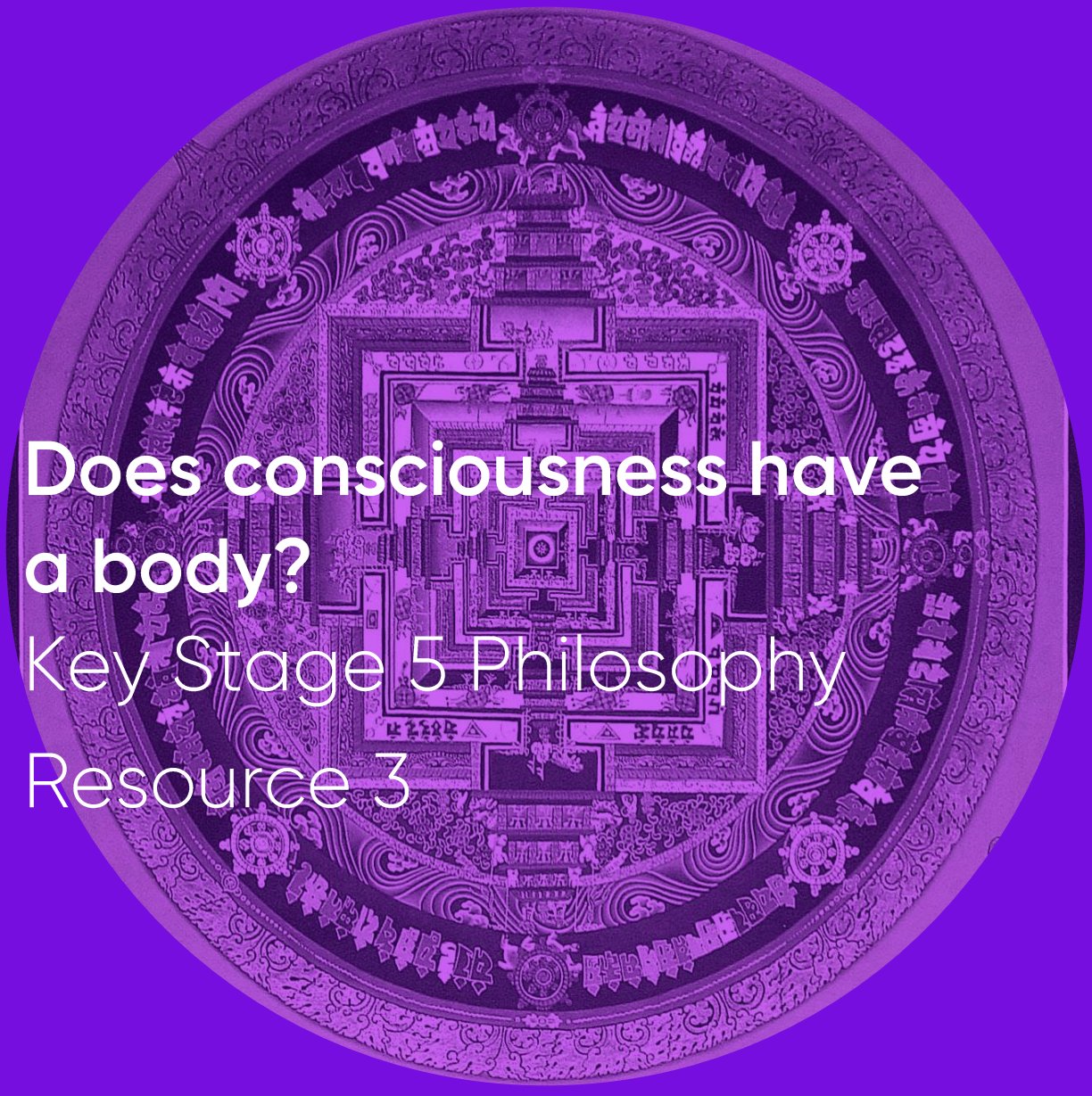
Research
Based
Curricula



Does consciousness have a body?

Key Stage 5 Philosophy

Resource 3

2019

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Resource Three Overview

Topic

What is embodied cognition?

A-Level Modules

Supra-curricular content

Objectives

After completing this resource you should be able:

- ✓ To develop an understanding of the notion of embodied cognition in real-life situations.
- ✓ To explore more complex texts and develop a better understanding of the conceptual framework that informs them.

Instructions

1. Read the data source
2. Complete the activities
3. Explore the further reading

Context

In philosophy, embodied cognition holds that an agent's cognition is strongly influenced by aspects of an agent's body beyond the brain itself. Varela et al. defines "embodied":

> "By using the term embodied we mean to highlight two points: first that cognition depends upon the kinds of experience that come from having a body with various sensorimotor capacities, and second, that these individual sensorimotor capacities are themselves embedded in a more encompassing biological , psychological and cultural context."

Franscisco J. Varela, Eva Thompson, Eleanor Rosch, *The Embodied Mind: Cognitive Science and Human Experience* (pp. 172-3)

Resource Three
Data Source

Maximum Grip: Intentionality Without Representation

in Hubert L. Dreyfus' The Current Relevance of Merleau-Ponty's Phenomenology of Embodiment, University of California – Berkeley

The first of the three major parts of Phenomenology concerns the body. Through a contrast with pathological cases such as phantom limbs, Merleau-Ponty describes the body's typical mode of existence as "being-toward-the-world"—a pre-objective orientation toward a vital situation that is explicable neither in terms of third-person causal interactions nor by explicit judgments.

This kinaesthetic awareness is made possible by a pre-conscious system of bodily movements and spatial equivalences that Merleau-Ponty terms the "body schema". In contrast with the "positional spatiality" of things, the body has a "situational spatiality" that is oriented toward actual or possible tasks (PP: 129/102). The body's existence as "being-toward-the-world", as a projection toward lived goals, is therefore expressed through its spatiality, which forms the background against which objective space is constituted (PP: 170/137)

The body's relationship with space is therefore intentional, although as an "I can" rather than an "I think"; bodily space is a multi-layered manner of relating to things, so that the body is not "in" space but lives or inhabits it. Trying to find out what Merleau-Ponty means by the "I can" leads us to a crucial feature of embodiment: motivation.

Merleau-Ponty has an original account of what leads one to act on the basis of the skills one has, and to acquire new ones. The philosophical tradition since Plato has held that what motivates animals and people to acquire skills and act on them is the desire to achieve certain goals. These goals are worth achieving because they are associated with certain satisfactions. But, as we have seen, once one has a skill one is solicited to act without needing to have in mind a goal at all. Thus, Merleau-Ponty is interested in exploring a more basic kind of motivation. According to Merleau-Ponty,

in everyday, absorbed, skillful coping, acting is experienced as a steady flow of skillful activity in response to one's sense of the situation. Part of that experience is a sense that when one's situation deviates from some optimal body-environment relationship, one's motion takes one closer to that optimum and thereby relieves the "tension" of the deviation. One does not need a goal or intention to act. One's body is simply solicited by the situation to get into equilibrium with it. "Whether a system of motor or perceptual powers, our body is not an object for and I think', it is a grouping of live-through meanings which moves towards its equilibrium" (1962: 153). When everyday coping is going well one experiences something like what athletes call flow, or playing out of their heads. One's activity is completely geared into the demands of the situation. Aron Gurwitsch offers an excellent description of this absorbed activity:

[W]hat is imposed on us to do is not determined by us as someone standing outside the situation simply looking on at it; what occurs and is imposed are rather prescribed by the situation and its own structure; and we do more and greater justice to it the more we let ourselves be guided by it, i.e., the less reserved we are in immersing ourselves in it and subordinating ourselves to it. We find ourselves in a situation and are interwoven with it, encompassed by it, indeed just "absorbed" into it. (Gurwitsch 1979: 67) To get the phenomenon in focus, consider a tennis swing. If one is a beginner or is off one's form one might find oneself making an effort to keep one's eye on the ball, keep the racket perpendicular to the court, hit the ball squarely, etc

But if one is expert at the game, things are going well, and one is absorbed in the game, what is experienced is more like one's arm going up and its being drawn to the appropriate position, the racket forming the optimal angle with the court

- an angle we need not even be aware of - all this so as to complete the gestalt made up of the court, one's running opponent, and the oncoming ball. One feels that one's comportment was caused by the perceived conditions in such a way as to reduce a sense of deviation from some satisfactory gestalt. Such skillful coping does not require a mental representation of its goal. It can be purposive without the agent entertaining a purpose. As Merleau-Ponty puts it:

A movement is learned when the body has understood it, that is, when it has incorporated it into its 'world', and to move one's body is to aim at things through it; it is to allow oneself to respond to their call, which is made upon it independently of any representation. (Merleau-Ponty 1962: 139)

An even more striking case, where the goal the skilled perceiver is being led to achieve is not available to the actor as something to aim at, will make the point clear. Instructor pilots teach beginning pilots a rule determining the order in which they are to scan their instruments. The instructor pilots teach the rule for instrument scanning that they themselves were taught and, as far as they know, still use. At one point, however, Air Force psychologists studied the eye movements of the instructors during simulated flight and found, to everyone's surprise, that the instructor pilots were not following the rule they were teaching; in fact their eye movements varied from situation to situation and did not seem to follow any rule at all. They were presumably responding to changing situational solicitations that showed up for them in the instrument panel thanks to their past experience. The instructor pilots had no idea of the way they were scanning their instruments and so could not have entertained the goal of scanning the instruments in that order.

Resource Three
Data Source

The phenomena of purposive actions without a purpose is not limited to bodily activity. It occurs in all areas of skillful coping, including intellectual coping. Many instances of apparently complex problem solving, which seem to implement a long-range strategy, as, for example, a masterful move in chess as we have seen, may be best understood as direct responses to familiar perceptual gestalts. As we have seen, after years of seeing chess games unfold, a chess grandmaster can play master level chess simply by responding to the patterns on the chess board while his deliberate, analytic mind is absorbed in something else. Such play, based as it is on previous attention to thousands of actual and book games, incorporates a tradition which determines the appropriate response to a situation, and then to the next etc., and therefore makes possible long range, strategic, purposive play, without the player needing to have in mind any plan or purpose at all. Thus, although comportments must have logical conditions of satisfaction, i.e. they can succeed or fail, there need be no mentalistic intentional content, i.e. no representations of a goal. If one can act without representing one's goal, what motivates skillful action?

Merleau-Ponty's inspiration for his notion of maximal grip comes from perception and manipulation. When we are looking at something, we tend, without thinking about it, to find the best distance for taking in both the thing as a whole and its different parts. When grasping something, we tend to grab it in such a way as to get the best grip on it. One is no doubt consciously motivated to acquire a skill like tennis, but one does not try consciously to discriminate more and more subtle tennis situations and pair them with more and more subtle responses.

Gurwitsch, Aron (1979). Human Encounters in the Social World. Duquesne University Press.
Merleau-Ponty, Maurice (1962). Phenomenology of Perception. C. Smith (translator). Routledge & Kegan Paul.

Resource Three Activities

Activities

1. Watch examples of kinaesthetic awareness at work in sports and dance:

    a) Archery Tournament

    https://www.youtube.com/watch?v=nzq_lSBmS9g

    b) Balinese dance lesson

    https://www.youtube.com/watch?v=wpewWVdvHCI

2. Listen to Hubert Dreyfus' podcat on 'Embodied Cognition'

3. Using the reading in this resource, along with the videos and podcast from activities 1 and 2, write an essay of at least 500 words in which you describe and analyse the idea of Embodied Cognition. Your essay should reference key philosophers and include evidence (e.g. quotes) from the resource.

Resource Three
Further Reading

Explore

Explore “The Embodied Mind Project”

https://www.jarmanlab.org/the-embodied-mind-project/

www.researchbasedcurricula.com

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