BENCE NANAY

Foundationalism Strikes Back? In Search of Epistemically Basic Mental States

I. Foundationalism: Two Distinctions

I will defend a version of foundationalism in this paper – a view that is not overwhelmingly popular these days.[1] Here is a characterization of foundationalism.

> A belief is justified if and only if it is either epistemically basic or is justified by an epistemically basic mental state.

The question is of course what these basic mental states are. Before addressing this question, I need to make two important distinctions within the category of foundationalism.

First, structural and substantive structuralism needs to be contrasted:[2]

> Substantive foundationalism: Epistemically basic states are epistemically basic in virtue of their content. Just on the basis of the content of a mental state one can tell whether it is epistemically basic or not.

> Structural foundationalism: Epistemically basic states are not necessarily epistemically basic in virtue of their content.

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[1] See for example Audi 1993a, 1993b, 1998, 2001, Alston 1976, 1989, Kornblith 1980, Triplett 1990, Lehrer 1990, BonJour 1985, Sosa 1980.

[2] This distinction comes from Williams 2001.

Most foundationalist theories want to endorse the former view. I will also argue for a version of substantive foundationalism. The second distinction is even more crucial:

> Beat-the-sceptic foundationalism: Epistemically basic states are not susceptible to sceptical worries: they are infallible.
>
> Never-mind-the-sceptic foundationalism: Epistemically basic states are not necessarily infallible.

The main idea here is that solving the problem of scepticism is not the only possible motivation for foundationalism. We can be foundationalist even if we have solved the problem of scepticism in some other ways (by accepting a reliabilist account of justification, for example). If one no longer worries about scepticism, then it is open to one to conceive of epistemically basic mental states as not necessarily infallible. The former version of foundationalism is sometimes called infallibilist foundationalism, whereas the latter is often referred to as fallibilist foundationalism.[3] I will defend a form of never-mind-the-sceptic foundationalism.

II. What May Epistemically Basic Mental States Be?

I will briefly examine the beat-the-sceptic version of foundationalism and consider some famous arguments that are supposed to show that it cannot work. From examining these arguments, some important constraints can be derived that every account of foundationalism should take into consideration.

According to the beat-the-sceptic version of foundationalism, epistemically basic mental states are infallible: we cannot be wrong about them. This is a premise the beat-the-sceptic foundationalist needs in order to block the sceptic worries. The main candidates for such infallible mental states are experiences. After all, we cannot be wrong about our experiences. I can be wrong about whether there is a chair in front of me, but I can't be wrong about whether I have the experience that there is a chair in front of me.

The beat-the-sceptic foundationalist encounters a very simple problem at this point. If I cannot be wrong about whether I have the experience

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[3] Audi 1993a, 1993b, 1998, 2001.

that there is a chair in front of me, then experiences cannot misrepresent. But one of the uncontroversial claims of philosophy of mind is that any theory of content must allow for the possibility of misrepresentation: I can have a mental state about a papaya even if I encounter a huge yellow pear that looks very much like a papaya. If I mistake a pear for a papaya, my mental state will still be about papayas, in spite of the fact that I am staring at a pear and there are no papayas around. In other words, any theory of mental content must be able to account for the fact that a mental state can *be about* something (a papaya) and *be triggered (or caused) by* something else (a pear). Therefore, if a type of mental state cannot be wrong, then this type of mental state does not have content. And it is difficult to see how a state without content could justify anything. Even if it does, it cannot justify anything in virtue of its content, therefore, they cannot provide the basis of a substantive foundationalist theory. It is important to note that the same argument applies not only to experiences, but to any mental states that are infallible.

Thus, epistemically basic mental states cannot be infallible, otherwise they would not be contentful mental states at all. This is the first constraint on the notion of epistemically basic mental state that every foundationalist account needs to take into consideration.

The second constraint follows from the notion of epistemically basic mental state itself. If we accept the consequences of the impossibility of beat-the-sceptic foundationalism, then epistemically basic mental states need to be construed as fallible mental states. If, however, the basic states are as fallible as the nonbasic ones, what makes them epistemically basic? There must be some epistemic difference between them and the nonbasic states, on the basis of which we can claim that some states are basic and others are not. If all our states are equally fallible, then the asymmetry inherent to any version of foundationalism (that is, the asymmetry between epistemically basic and epistemically nonbasic states) is lost.

Thus, we have seen that the difference between epistemically basic and epistemically nonbasic states cannot be constituted by the fact that basic states are infallible. On the other hand, there must be some epistemic difference between them. I will argue that this difference is that while basic mental states are incorrigible, nonbasic ones are not.

A note on the notion of incorrigibility. Incorrigibility is often confused with infallibility. In fact it is a very different, and much weaker, notion. All that is required for the incorrigibility of a mental state is that the

agent cannot correct it – the agent has no control over whether she has this mental state or not. This mental state may very well be incorrect, however.

Incorrigibility is an important epistemic feature of our mental states. If we managed to point at a set of mental states that are incorrigible and that somehow serve as foundations for other, not incorrigible, mental states, then we would satisfy both conditions I outlined above: the difference between basic and nonbasic states is not infallibility, since both basic and nonbasic mental states are fallible. However, there is an important epistemic difference between basic and nonbasic states: basic states are incorrigible, whereas nonbasic ones are not.

Unfortunately, incorrigible mental states are few and far between. Our perceptual experiences (or perceptual states), as we shall see shortly, are not normally incorrigible. There are various visual riddles that are based on this feature of our perceptual system. When we are asked to spot the differences between two seemingly very similar drawings or photographs, then even if we cannot spot some of them, when these differences are pointed out to us, we do see them. In other words, we are very much in the position to correct our perceptual states.

In this paper, I will argue that there is a special subcategory of perceptual states that are indeed incorrigible. I will call them ‘action-oriented perceptual states’. Before I define them, I will need to introduce the notion of perceptually guided action.

III. Perceptually Guided Action

Some actions are *perceptually guided*, others are not. An agent A's action of type Q is perceptually guided if and only if there is a perceptual state of type P such that the reliable successful performance of tokens of Q is not possible unless A is (or at least has been) in a veridical perceptual state of type P. To put it simply, an agent's action is perceptually guided if its reliable successful performance is not possible unless this agent is (or has been) in a perceptual state of a certain type.

First of all, a brief note about the notion of perception in the above definition. Some philosophers argued that proprioception is a form of perception. Whether it is or not, I would like to focus on the perception of dis-

tal objects. What is necessary for the successful reliable performance of a perceptually guided action is the *perception of a distal object*.[4]

Thus, the definition of perceptually guided actions can be rephrased in the following manner:

> An agent's action-type Q is perceptually guided if and only if there is an object x (or an object-type X) such that the reliable successful performance of Q is not possible unless she perceives (or has perceived) x (or a token of X).

Raising one's arm is not a perceptually guided action. I can perform this action reliably even if I do not perceive any distal object at all.[5] The reliable successful performance of this action does not presuppose having or having had any perceptual state. Blinking is not a perceptually guided action either. Playing golf, on the other hand, is a perceptually guided action: the reliable successful performance of the action of playing golf does presuppose perceiving certain objects (presumably the ball and the hole).

It is important to emphasize that the distinction between perceptually guided and non-perceptually guided actions is a distinction between action-types and not between action-tokens. A certain token action may belong to a perceptually guided action-type even if when the agent performs a token of this action-type, she does not perceive anything. An example may be useful to clarify this point.

The action-type of scoring a goal is also perceptually guided: One cannot perform this action reliably unless one perceives (or at least has recently perceived) the goal. If I am blindfolded, and hence I cannot perceive the goal, I may also happen to kick the ball in such a way that the ball ends up in the goal. In other words, I may get lucky. All the same, this token action is a token of a perceptually guided action-type, scoring a goal, the *re-*

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[4] Examples where actions are performed on one's own body (such as scratching one's elbow or touching one's nose) constitute an interesting case. The reliable successful performance of these actions does not presuppose the perception of any distal object, but it does depend on proprioception. Hence, these actions are non-perceptually guided (they may be called proprioceptically guided though).

[5] The patient Ian Waterman, described in Cole 1991, provides an interesting case. Because of a viral infection, he is thought to lack the ability of proprioception, and as a result, he can move his arm only if he is looking at it. In a dark room, he cannot move (see also Noe 2004, chapter 1). His action of raising his hand may be described as perceptually guided, but this is so only because he uses distal perception in place of proprioseption. See also the previous footnote.

liable performance of which does presuppose a perceptual state of a certain kind (perceiving the goal).[6]

The perceptual states without which the reliable performance of perceptually guided actions is not possible I call '*action-oriented perceptual states'*. In order to score a goal, one needs to perceive the goal. This perceptual state without which the successful reliable performance of the action of scoring a goal is impossible is an action-oriented perceptual state. I will argue that these perceptual states are epistemically basic. First, however, I need to say a bit more about the distinction between perceptually guided actions and actions that are not perceptually guided.

Some actions are not that easy to sort into one of these two categories. There are actions that have become so automatic that their reliable successful performance does not seem to presuppose any perceptual state. Touch-typing would be a possible example. One can touch-type reliably without even looking. All the same, the reliable successful performance of these actions is not possible without the agent's having certain perceptual states. Even if I do not need to look at my fingers when I am typing, the reason why I tend to hit the middle of the keys is that my action is guided by some tactile states.

How about the following example? Suppose that the dustbin in my office is a couple of meters behind me so that I cannot see it (nor can I touch it), but I spend so much time in the office that I can throw my teabags into my dustbin quite reliably. Does the reliable successful performance of this action presuppose that I now perceive the dustbin? No. Does the reliable successful performance of this action presuppose that I have perceived the dustbin in the past? Certainly. I would not be able to perform this action so successfully and reliably unless I have perceived the dustbin and its whereabouts in the office.

The distinction between perceptually guided actions and actions that are not perceptually guided is an interesting one in itself and probably a lot more could be written about it. The only role this distinction plays in this paper, however, is to help introducing the concept of action-oriented perceptual states.[7] This is the concept I now turn to.

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[6] For simplicity, in what follows I will focus on vision rather than perception in general. However, my argument can be generalized to all the sense modalities.

[7] The term 'action-oriented representation' was used by Andy Clark (Clark 1997, pp. 49-51) He defines action-oriented representations as "representations that simultaneously describe aspects of the world and prescribe possible actions, and are poised between pure control structures and passive representations of external reality" (Clark

IV. Action-oriented perceptual states

Action-oriented perceptual states are perceptual states without which the reliable successful performance of perceptually guided actions is impossible. Suppose that I am looking at object x (or an object of type X). My perceptual state is action-oriented if and only if I am performing an action, the reliable performance of which is not possible without perceiving x (or an X) veridically. More precisely,

> Agent A's perceptual state R at time t is action-oriented if and only if there is an object x (or object type X) and a perceptually guided action Q such that
> (1) A performs a token of Q at time t
> (2) A is looking at object x (or a token of X) at time t
> (3) A's reliable successful performance of Q is not possible unless A perceives x (or an X) veridically.

To put it more simply, agent A's perceptual state, R, is action-oriented if and only if A is looking at x, A performs a token of a perceptually guided action-type and the reliable successful performance of this action is not possible unless A sees x veridically.

Some of our perceptual states are action-oriented, some are not. If I am running to catch my bus, then I see the lamppost in my way in an action-oriented manner. If, on the other hand, I am sitting on a bench in front of the same lamppost admiring it without any particular urge to perform any action, then I am likely to see it in a non-action-oriented manner.

Why should we be interested in action-oriented perceptual states? First, because very many of our perceptual states are action-oriented: we perform perceptually guided actions all the time and most of these actions require that we are in some action-oriented perceptual state.

More importantly, action-oriented perceptual states are in some sense more basic than perceptual states that are not action-oriented. The perceptual states of animals are likely to be action-oriented. Some animals do perform perceptually guided actions. They escape from predators, approach

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1997, p. 49). This notion is not really explained, but on the basis of Clark's definition it at least does not contradict my notion of 'action-oriented perceptual state'. See also Clark 1995, Clark 2001, p. 85. Millikan may also mean something similar by her notion of 'pushmi-pullyu' representation (Millikan 1996b).

food, approach their potential mate. The reliable successful performance of these actions is not possible unless the animal is in some veridical perceptual state (presumably, unless it perceives the predator, the food or the potential mate). Hence, it seems uncontroversial that some animals can be in action-oriented perceptual states, whereas it is not at all obvious that these animals can be in perceptual states that are not action-oriented.

The same may be true for the perceptual states of small children. Small children do perform perceptually guided actions, therefore, they can be in action-oriented perceptual states. Whether they can be in perceptual states that are not action-oriented is unclear. Thus, it appears that action-oriented perceptual states are in some sense more basic than ones that are not action-oriented from both a phylogenetic and an ontogenetic point of view.

I will argue that action-oriented perceptual states are more basic even from an epistemic point of view: they are incorrigible. Before arguing for this claim, however, I need to show that the distinction between action-oriented perceptual states and the rest of our mental states is a real one: the content of action-oriented perceptual states and the content of the rest of our mental states is structurally different.

V. The Content of Action-Oriented Perceptual States

At the beginning of the paper I argued that most foundationalists want to endorse a version of substantive foundationalism: an account whereby epistemically basic states are epistemically basic in virtue of their content. I will argue in this section that there is a major difference between the content of action-oriented and non-action-oriented perceptual states: the content of action-oriented perceptual states depends counterfactually on the action one performs, whereas the content of the rest of our mental states does not necessarily do so. In other words, whereas the action I perform is part of what individuates the content of my action-oriented perceptual state, it is not necessarily part of what individuates the content of the rest of my mental states. First, what does this claim mean exactly?

Under some interpretation, this claim is obviously true. Everyone would agree that the action I perform at t_1 does influence my perception at t_2, if t_2 follows t_1. For example, the action of turning my head at t_1 does influence my perception in the next moment. There are some other fairly obvious examples of action-perception dependence that everyone would accept: when one is perceiving one's own action, of course, the content of

one's perceptual state depends on the action one performs. Also, if I am driving a car, I will see the two sides of the road passing by - something I would not see were I not driving a car.

In all of these three examples, the action the agent performs influences her sensory stimulation, thus, her perceptual state. When I am looking at my hand while reaching out to take a sip from a glass and when I am looking at my hand while ringing the doorbell, my sensory stimulation will be different in the two cases, therefore, it is not surprising that the content of my perceptual state will also be different. Also, when I am driving the car, my sensory stimulation depends on this action, therefore, the content of my perceptual state does too.

My claim is that the content of one's action-oriented perceptual state depends on the action one performs *even if the sensory stimulation is the same*. When I am looking at a glass of wine while reaching out to drink it, my perceptual content will be different from what it would be if I were looking at the same glass of wine while reaching out to pour it under the table even if my sensory stimulation is the same. If the action I perform were different, the content of my perceptual state would be different, even if my sensory stimulation were the same.

We have seen that this is not an obviously true claim, but it is not so radical either. The content of our perceptual states depends counterfactually on lots of things. For example, when I look at the duck-rabbit drawing and I see it as a duck-picture and when I look at the same drawing and I see it as a rabbit-picture, then the content of my perceptual state is different in the two situations, in spite of the fact that everything else, including my sensory stimulation, is the same. My claim is structurally similar to this: the content of one's perceptual state also depends counterfactually on the action one performs.

One could ask what the motivation for this claim is. Why would anyone be tempted to say that the content of some of one's perceptual states depends on the action one performs? The simple reason is the following. When I am climbing a tree and when I am hiding behind it, the way I see the tree is different, even if my sensory stimulation is the same: in the first case I see it as climbable or suitable for climbing (or affording climbing), whereas in the second case, I see it as suitable for hiding behind (or affording hiding behind).

In other words, when I perform action Q, I see the object on or with the help of which I am performing the action as affording action Q. When, on the other hand, I perform another action, Q*, I see the same object as

affording action Q*. When I do not perform any action, then I do not necessarily see the object I am looking at as affording an action. This may sound like an intuitively appealing way of rephrasing my claim, but it also raises some worries.

First, I can see an object as affording a certain action even if I do not perform this action, I am only tempted to do so. Thus, being in an action-oriented perceptual state is not to be identified with seeing an object as affording an action.[8] So probably describing action-oriented perceptual states with the help of the intuitively appealing notion of seeing an object as affording an action is not so helpful after all.

My answer is the following: I aim to show that the content of action-oriented perceptual states depends counterfactually on the action the agent performs. I do not aim to show that action-oriented perceptual states are the *only* mental states that are such that their content depends counterfactually on a certain action of the agent. It may be the case that if I see a cake as edible without actually eating it, the content of my perceptual state depends on the action I am inclined to perform. To put it simply, I will argue that if one is in an action-oriented perceptual state, then one sees an object as affording a certain action, but one may be able to see an object as affording a certain action even if one is not in an action-oriented perceptual state.

The second, and much more serious, problem with using the term 'seeing something as affording certain actions' is that one could deny that there is such a thing. One could argue that when we say that one perceives an object as affording a certain action, this only means that one perceives a certain object and knows that objects of this kind afford a certain action. In other words, one could argue that the action an object affords is not part of the content of our *perceptual* state, but rather of the belief our perceptual state triggers. This way of describing what it means that we see an object as affording certain actions would be compatible with the thesis that the action one performs does not have any substantial influence on one's perception. In other words, it would be compatible with the classical picture of perception and action, which I am arguing against. In the next section, I will argue that the action an object affords is part of the content of one's *perceptual* state (and not one's beliefs). In other words, the content of one's perceptual state depends counterfactually on the action one performs (other things being equal).

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[8] Even worse, we can see an object as affording a certain action to someone else without even being inclined to perform this action. See (deleted).

Now let us see my argument for this claim that when I am in an action-oriented perceptual state, *the content of my perceptual state depends counterfactually on the action I perform*.

David Milner and Melvyn Goodale describe a patient, D. F., who suffered carbon-monoxide-induced visual agnosia (Milner and Goodale 1995).[9] D. F. cannot recognize objects or shapes; if she is asked whether an elongated rectangular slot is horizontal or vertical, she cannot tell. She cannot even indicate the orientation of the slot with her hand. If, however, she needs to 'post' an envelope through this slot, she can do so quite reliably (she rotates her hand into the position that is required for the successful performance of this action). Importantly, she cannot do this if the light is turned off or if she is blindfolded.

How can we describe D. F.'s action in the conceptual framework I outlined above? The action D. F. is performing is certainly a perceptually guided action: its reliable performance is not possible unless she sees a certain object (the slot). She could perform the action of 'posting' a letter reliably only if the light was not switched off.

The perceptual state D. F. is in while attempting to perform this action is an action-oriented one, since (1) she performs the action of 'posting the envelope' through the slot, (2) she is looking at the slot and (3) the reliable performance of posting the envelope is not possible unless she sees the slot. Thus, D. F. is in an action-oriented perceptual state. Further, this action-oriented perceptual state must represent the orientation of the slot, otherwise D. F. could not perform the action of posting an envelope through this slot reliably.

Now what happens if D. F. does not perform this action? As the experiments show, in this case, she has no way of telling or even indicating with her hand what the orientation of the slot is, even if she is eyeing it keenly. In other words, her perceptual state does not represent the orientation of the slot.

Thus, the orientation of the slot is a property D. F.'s perceptual state represents if she performs the action of 'posting an envelope' through this slot (otherwise she could not perform this action reliably), but if D. F. does not perform this action, then her perceptual state does not represent this

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[9] A good number of philosophers used Milner and Goodale's experiments to support their theories. It is important to note that I do not side with any of these theories. I use D. F.'s case to show that the content of action-oriented perceptual states depends counterfactually on the action the agent performs. I want to remain neutral about what else these experiments show.

property. The content of her perceptual state is different if the action she performs is different, even if her sensory stimulation is the same.

To put it differently, the content of her action-oriented perceptual state depends counterfactually on what action she performs. This is exactly what we wanted to show.

VI. The Incorrigibility of Action-Oriented Perceptual States.

Thus, we singled out an interesting subset of mental states: action-oriented perceptual states. We have seen that the content of action-oriented perceptual states depend counterfactually on the action one performs. Now I only need to show that these mental states are incorrigible.

First, what does it mean that an agent's mental state is incorrigible? We have seen that an agent's mental state is incorrigible if she has no control over whether to be in this mental state or not. Beliefs are no incorrigible: if I believe that Arsenal is the best soccer team in the world, and I have enough evidence against this belief, then I can give up this belief of mine.

It is important that incorrigibility implies that the agent has no control whatsoever over whether to be in a certain mental state. In the case of some of our mental states, we do have at least some partial control over whether to be in a certain mental state, but this does mean that these states are incorrigible. Perceptual states are possible examples.

Our perceptual experiences (or perceptual states) are not normally incorrigible. There are various visual riddles that are based on this feature of our perceptual system. When we are asked to spot the differences between two seemingly very similar drawings or photographs, then even if we cannot spot some of them, when these differences are pointed out to us, we do see them. In other words, we are very much in the position to correct our perceptual states. Also, if I do not see the duck in the famous duck-rabbit representation, someone can point out to me where to look for the beak of the duck is and where to look for its eye, and as a result, I may be able to see the duck in the duck-rabbit picture. Therefore, I was in the position to correct and modify my perceptual state. Thus, perceptual states in general are not incorrigible.

The main aim of this paper is that a certain subset of perceptual states, namely, action-oriented perceptual states, are indeed incorrigible. Even if we know that an object does not afford action Q, we still cannot help seeing it as affording Q. This seems easy: if I see the depths under my feet as threatening (affording falling down), then even if I know that there

is no way I could fall because there is a railing between me and the depths, I still see the depths as threatening (and affording falling down).

Similarly, if I see a ball being thrown towards me with great speed, I see it as affording ducking: even if I know it very well that there is a plexiglass between the ball and me, and therefore the ball can never actually hit me, I do see the ball as affording a certain action to me.[10]

What these examples suggest is that no matter how hard we try, we just cannot alter our action-oriented perceptual states. They are incorrigible.

VII. Conclusion

If the argument I presented in the previous sections is correct, then we have found a set of epistemically basic mental states. These mental states are not infallible – hence, we avoid the problems beat-the-sceptic foundationalists face. They are incorrigible though – constituting a major epistemic difference between basic and nonbasic mental states. Also, their content is structurally different from the content of nonbasic mental states – they are epistemically basic in virtue of their content.

In other words, if we accept that action-oriented perceptual states are epistemically basic, then we end up with a version of substantive never-mind-the-scpetic foundationalism.

REFERENCES

Alston, William P. 1976: "Two types of Foundationalism" *Journal of Philosophy*, 73: 165-85.

Alston, William P. 1989: *Epistemic Justification. Essays in the Theory of Knowledge*. Ithaca: Cornell University Press.

Audi, Robert 1993a: "Contemporary Foundationalism", in: Louis Pojman (ed.): *The Theory of Knowledge: Classic and Contemporary Readings*. Belmont: Wadsworth. pp. 206-213

Audi, Robert 1993b: *The Structure of Justification*. New York: Cambridge University Press.

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[10] Interestingly, we experience the same phenomenon even if we see a ball flying towards the camera on film (in a point of view shot). See (deleted)

Audi, Robert 1998 *Epistemology*, London: Routledge.
Audi, Robert 2001 *The Architecture of Reason.* New York: Oxford University Press.
BonJour, Laurence 1985: *The Structure of Empirical Knowledge*. Cambridge: Harvard University Press.
Campbell, John (1993): The Role of Physical Objects in Spatial Thinking. In: Naomi Eilan, Rosaleed McCarthy and Bill Brewer (eds.): Spatial Representation. Oxford: Oxford University Press. pp. 65-95.
Campbell, John (1994): *Past, Space, and Self*. Cambridge, MA: The MIT Press.
Campbell, John 2002 *Reference and Consciousness*, Oxford: Oxford University Press.
Clark, Andy 1995 Moving Minds: Re-thinking Representation in the heat of situated action. In J. Tomberlin (ed.) *Philosophical Perspectives 9: AI, Connectionism and Philosophical Psychology*. Atascadero, CA: Ridgeview.
Clark, Andy 1997 *Being There: Putting Brain, Body and World Together Again*. Cambridge, MA: The MIT Press.
Clark Andy 2001 *Mindware*. Oxford: Oxford University Press.
Edelman, G. M. (1987): *Neural Darwinism: The Theory of Neuronal Group Selection.* New York: Basic Books.
Evans, Gareth 1982 *The Varieties of Reference,* Oxford: Clarendon Press.
Fodor, Jerry A. – Pylyshyn, Zenon (1981): How Direct is Visual Perception? Some Reflections on Gibson's "Ecological Approach". *Cognition 9* pp. 139–196.
Gibson, James J. (1966): *The Senses Considered as Perceptul Systems.* Boston: Houghton Mifflin.
Gibson, James J. (1979): *An Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.
Hommel, Bernhard, Müsseler, Jochen, Aschersleben, Gisa, and Prinz, Wolfgang 2001 "The Theory of Event Coding: A Framework for Perception and Action Planning," *Behavioral and Brain Sciences 24,* 849-931.
Hurley, S. L. (1998): *Consciousness in Action*. Cambridge, MA: Harvard University Press.
Jeannerod, M. 1997: *The Cognitive Neuroscience of Action.* Oxford: Blackwell.
Kornblith, H. 1980 'Beyond Foundationalism and the Coherence Theory', *Journal of Philosophy*, 77: 597-612.
Lehrer, Keith 1990 *Theory of Knowledge* Boulder: Westview Press.
Leibniz, G. W. (1704/1981): *New Essays on Human Understanding*. Cambridge: Cambridge University Press.
Lewis, C. I. 1929 *Mind and the World-Order: Outline of a Theory of Knowledge.* New York: Charles Scribner's Sons.
Lewis, C.I. 1946 *An Analysis of Knowledge and Valuation.* La Salle, IL: Open Court.
Merleau-Ponty, Maurice (1945): *La phénoménologie de la perception.* Paris: Gallimard.
Millikan, Ruth G. 1996 Pushmi-Pullyu Representations. In L. May, M. Friedman and A. Clark (eds.) *Minds and Morals*. Cambridge, MA: The MIT Press, pp. 145-162.
Milner, A. D., and M. A. Goodale. (1995): *The Visual Brain in Action.* Oxford: Oxford University Press.

Noë, Alva (2002). Causation and Perception: The Puzzle Unravelled. *Analysis* 63: 93-100.

Noë, Alva (2002). On What We See. *Pacific Philosophical Quarterly* 83: 57-80.

Noë, Alva (2004). *Action in Perception*. Cambridge, MA: The MIT Press.

Peacocke, Christopher (1986b): Analogue Content. Proceedings of the Aristotelian Society Supplementary Volume 60: 1-17.

Peacocke, Christopher (1989): Perceptual Content. In: Themes from Kaplan, edited by J. Almong, J. Perry and H. Wettstein. Oxford: Oxford University Press. pp. 297-329.

Peacocke, Christopher (1992a): *A Study of Concepts*. Cambridge, MA: The MIT Press.

Peacocke, Christopher (1992b): Scenarios, Concepts and Perception. In: Tim Crane (ed.): *The Contents of Experience*. Cambridge: Cambridge University Press. pp. 105-135.

Sosa, Ernest 1980 "The Raft and the Pyramid: Coherence Versus Foundations in the Theory of Knowledge", in: French, Peter A. (ed.): *Midwest Studies in Philosophy, Vol. 5: Studies in Epistemology*. Minneapolis: University of Minnesota. pp. 3-25.

Triplett, T. 1990 'Recent Work on Foundationalism', *American Philosophical Quarterly*, 27: 93-116.

Ullman, S. (1980): *Against Direct Perception*. New York: MacMillan.

Williams, Michael 2001 *The Problem of Knowledge*. Oxford: Oxford University Press.