

# DOWNLOAD PDF ARMSTRONG THE THERMOMETER MODEL OF KNOWLEDGE

## Chapter 1 : Model | Armstrong International

*Unformatted text preview: Armstrong\_The Thermometer Model of Noninferential Knowledge Three views on non- $\hat{a}$ inferential knowledge (basic) Pessimistic View a. Non- $\hat{a}$ inferential knowledge is confined to the believer's own sensory states.*

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### Chapter 2 : Internalism and Externalism in Epistemology | Internet Encyclopedia of Philosophy

*discussion about the thermometer model for knowledge by D.M. Armstrong.*

Phil at the University of Oxford and a Ph. D at the University of Melbourne. He taught at Birkbeck College in 1955, then at the University of Melbourne from 1957. In 1961, he became Challis Professor of Philosophy at the University of Sydney, where he stayed until his retirement in 1981. During his career, he was a visiting lecturer at a number of institutions including Yale, Stanford, the University of Notre Dame, the University of Texas at Austin and Franklin and Marshall College. He previously married Madeleine Annette Haydon in 1963. In *Sketch for a Systematic Metaphysics*, Armstrong states that his philosophical system rests upon "the assumption that all that exists is the space time world, the physical world as we say". He justifies this by saying that the physical world "seems obviously to exist" while other things "seem much more hypothetical". From this fundamental assumption flows a rejection of abstract objects including Platonic forms. Martin on a collection of critical essays on John Locke and George Berkeley. Those universals match up with the fundamental particles that science tells us about. The ultimate ontology of universals would only be realised with the completion of physical science. Mass would thus be a universal subject to mass not being discarded by future physicists. Armstrong then suggests that a supervenience relation exists between these second order properties and the ontologically authentic universals given to us by physics. According to Armstrong, complex relations which seem to challenge the principle are not ontologically real but are second-order properties that can be reduced to more basic properties that subscribe to the Principle of Instantial Invariance. Coextension is a problem they face: He provides an analogy to the argument in Euthyphro: They are part of the class of electrons because they are electrons. Blobbiness also threatens Platonic universals: He also says that "Plato in his later works, Aristotle and the Scholastic Realists were ahead of contemporary philosophy in this matter, although handicapped by the relative backwardness of the science and the scientific methodology of their day". If some particular *a* has a non-symmetric relation *R* to another particular *b*, then *R a, b* differs from *R b, a*. It may be the case that *R a, b* obtains in the world but *R b, a* does not. Without states of affairs instantiating the particulars and universals including relations, we cannot account for the truth of the one case and the falsity of the other. Armstrong identifies the laws as holding between universals rather than particulars as an account of laws involving just particulars rather than universals would not adequately explain how laws of nature operate in the case of counterfactuals. Under the theory of Armstrong, Tooley and Dretske, there is a relation of necessity between the universals ravenhood and blackness, rather than there being a relationship with every single raven. This allows the explanation of laws of nature that have not been instantiated. Mumford cites the frequently-used example of the moa bird: Rather, it died mainly because of some virus that just happened to sweep through the population. One bird could have escaped the virus only to be eaten by a predator on the day before its fiftieth birthday. Dispositions[ edit ] Armstrong rejects dispositionalism, the idea that dispositional properties or powers as they are sometimes referred to are ontologically significant and have an important role in explaining laws of nature. Armstrong simply states that the disposition is simply in the nature of the instantiated properties of the thing which is supposed to have the disposition. The wall being painted green is a truth for the proposition that it is not painted white and the proposition that it is not painted red and so on. Presentists, Armstrong argues, must either deny that truthmakers are needed for statements about the past, or account for them "by postulating rather strange truthmakers". Armstrong did not accept behaviourism and instead defended a theory he referred to as the "central-state theory" which identifies mental states with the state of the central nervous system. In *A Materialist Theory of Mind*, he accepted that mental states such as consciousness exist, but stated that they can be explained as physical phenomena. Armstrong uses the analogy of a thermometer: The connection between knowledge and the external world, for Armstrong, is a nomological relationship that is, a law of nature relationship. He gives the example of a woman who has learned her husband is dead but cannot bring herself to believe her husband is dead. She both believes and

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disbelieves her husband is dead: A student is asked when Queen Elizabeth I died, and he hesitatingly answers "" and exhibits no confidence in his answer. He has forgotten that at some point previously, he studied English history. Radford presents this as an example of knowledge without belief. But Armstrong differs on this: Armstrong rejects the KK Principle "that to know some thing p, one must know that one knows p.

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## Chapter 3 : The Infinite Regress

*Armstrong in his book Belief, Truth and Knowledge attempted to explain non-inferential knowledge, such as perceptual knowledge, using the model of a thermometer. A good thermometer is one which gives accurate readings in a range of temperatures.*

A handheld infrared thermometer is a great solution for non-contact surface temperature measurements. However, handheld infrared thermometers can be expensive. Unfortunately, my budget for this particular project was limited. I set out to determine if an economical accurate infrared thermometer existed on the market. The answer was YES! How Do Infrared Thermometers Work A handheld infrared thermometer focuses the infrared light emitted from the surface of an object onto a thermopile a detector via an optical lens. The thermopile converts the infrared radiation into heat which is translated into a digital signal. Handheld infrared thermometers provide a convenient means of measuring surface temperature without contact. Higher end infrared thermometers actually provide thermal images thermal maps of the measurement surface. The average infrared thermometer provides a numerical digital temperature reading. Plumbers use them to verify water temperatures do not exceed commercial code limits when installing hot water heaters. Homeowners use infrared thermometers to determine areas of heat loss in their homes i. The Search for an Infrared Thermometer I conducted an extensive investigation into the handheld infrared thermometers commercially available on the market. I examined infrared thermometers sold by the following companies: Accuracy is very important to me. I found in during my investigation that some of the brand name infrared thermometers i. Worse, other manufacturers do not provide specifications on measurement accuracy. To my surprise and relief, I discovered that the best performing infrared thermometer backed by online customer reviews was also on of the most economical. This handy tool provides some of the features of more expensive models with better accuracy. The Commercial Electric infrared thermometer served me well during my engineering project. For example, I measured the temperature of ice and received measurements between Commercial Electric IR Thermometer.

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*David Malet Armstrong Personal 'The thermometer-model of knowledge'. Extracted from the above in Knowledge: Readings in Contemporary Epistemology. Ed. Sven.*

Reliabilist later Goldman The basic division is between mainstream externalist accounts of knowledge which reject justification altogether and an account by Goldman who interprets justification itself externally. Within the basic division, some accounts take the crucial element for a belief in making the truth connection to be the history of the way in which the belief is formed. Other accounts are more formal, in that they are concerned only with the way in which the belief itself is related to the truth. Knowledge-Externalism Most externalist theories reject a justification condition of knowledge and replace it with some sort of external condition. We will refer to non-justification theories of knowledge as k-externalist theories. They typically provide a revised three-part analysis of knowledge: Belief-Formation and the Truth Connection One way of understanding the proper relation between a belief and the world is to focus on how the belief came about in the first place. We might think of knowledge as requiring an appropriate response to the conditions in our environment. We make this response by forming beliefs about that environment. And we have knowledge when we form those belief in a way that reflects the way the environment really is. Note that although the analysis is in the form of a single condition, the requirements that S believe that P and that P be true are built into it, just as for Lehrer knowledge is reducible to true acceptance that is undefeated pp. The causal theory is appealing especially as an account of perceptual knowledge because in perception we enter into a causal relation with the object perceived. Since this causal connection is what provides the information about perceived objects, it would seem that our knowledge of the objects is a product of that causal connection. Moreover, the causal theory can handle standard Gettier cases. In fact, this is what moved Goldman to propose the analysis in the first place. Take the sheep example of Chisholm given in Chapter 1. S does not know that S sees a sheep because the belief that he sees a sheep is caused by the presence of the dog in the foreground, not the sheep in the background. Lehrer points out well-known problems with the causal analysis. The most compelling one is that it seems to be limited to knowledge of objects to which we can stand in a straightforward causal relation. These are the ordinary objects of perception. But much of the knowledge we appear to have is not so restricted. Abstract objects such as numbers seem not to cause us to have the beliefs about them that we do though some rationalists would question this claim. General truths and truths about the future are subject to the same problem. If theoretical objects, such as sub-atomic particles, do stand in causal relations to us, those relations are tenuous and not of the kind that would be easily adapted to the analysis. For these reasons and others, the causal theory has few if any adherents at present. The second type of belief-formation theory we shall discuss is reliabilism. Reliabilist theories may also be j-externalist , as will be described below. Ramsey proposed this analysis of knowledge: Most reliabilist theories do not require absolute reliability, though they might. This would make it more congenial for Lehrer than externalist theories requiring an infallible truth connection. Given that it stops short of infallibility, reliabilism leaves us saddled with the problem of specifying the degree of reliability required for knowledge. Another problem faced by reliabilist theories is known as the "generality objection. Ramsey mentioned memory, for example. But not all our memory is reliable to the same degree. Some people have excellent short-term memory but poor long-term memory. Others can remember certain kinds of subjects well but are very poor at recalling others. It is essential for the reliabilist to be able to specify precisely the process which yields knowledge. But here is where the problem arises. If the specification is too general e. Pollock points out the human visual perception is not reliable in the universe at large, since it only works correctly in the light of a yellow sun, and yellow suns are relatively uncommon. Contemporary Theories of Knowledge, second edition, p. But if we try to overcome this problem by specifying that reliability need hold only in a certain domain as with visual peception in standard lighting conditions , we run the risk of giving an ad hoc account of the circumstances. That is, we end up stating the

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circumstances in which a process is reliable as being just those in which we think a person has knowledge. Then we would not come to any greater understanding of what knowledge is because the concept of reliability would be entirely dependent on our intuitions about when we know. The Truth Connection by Design Alvin Plantinga has recently promoted a different kind of appeal to belief-forming processes. Going beyond the mere reliability of causal processes that produce a belief, he points to the "proper functioning" of the cognitive faculty that produces the belief. The difference here is that Plantinga has a "teleological" conception of the operations of our cognitive faculties. What matters is how reliably they produce true beliefs. For Plantinga, on the other hand, what is important is that these faculties have roles which they may or may not carry out properly. So the process "must be non-pathological; we might say that the process in question must be one that can be found in cognizers whose cognitive equipment is working properly; it must be the sort of process that can occur in someone whose faculties are functioning aright" Warrant: The Current Debate, p. The type of cases he appeals to are ones involving defects such as brain lesions which happen to cause a person to have reliably true beliefs. In such cases, there is an element of accident in the truth of the beliefs, despite their reliability. The teleological aspect of "proper functioning" comes into full view when Plantinga tells us that it is the "design-plan" of the faculty that determines its function. He argues that evolution could not have produced the required plan and concludes that our faculties are designed by God.

**Formal Externalist Accounts of Knowledge** Some externalist accounts of knowledge do not make reference to the way in which a belief is formed. Instead, they emphasize the relation of the belief to some general condition that connects the belief to the truth. The condition may be a law of nature or it may be a condition that tracks what would be believed in various circumstances.

**The Nomological Account of Knowledge** The nomological theory is closely related to the causal theory. Armstrong in his book *Belief, Truth and Knowledge* attempted to explain non-inferential knowledge, such as perceptual knowledge, using the model of a thermometer. A good thermometer is one which gives accurate readings in a range of temperatures. It is no accident that the thermometer is successful; rather, there are natural laws which connect the reading with the temperature itself. Just as thermometer readings can be a successful indicator of the temperature, our non-inferential beliefs can be successful indications of facts about the world, so long as their occurrence is lawfully connected with the facts themselves. It may well be that a reliable causal process is the basis of the connection, but it need not be. Moreover, a law-like connection is a very strong relation. Reliabilism seems more appealing because it is based on a high frequency of true belief rather than a lawful relation between truth and belief. An even more general version of k-externalism is the counterfactual theory. This theory was originally proposed by Dretske in his book *Seeing and Knowing*. Robert Nozick came upon the same notion some time later and developed it in some detail in his *Philosophical Explanations*. Suppose she has an identical twin whom Lehrer cannot distinguish from the secretary herself. We could say that given that Lehrer had never seen the twin, he would believe that the twin was his secretary were he to see her. So his belief that his secretary is in the office does not track the truth through situations in which her twin is present. The tracking theory has come under heavy criticism, particularly by Saul Kripke in an unpublished manuscript from the mids. This objection is discussed in Chapter 9 , but it is appropriate to look at it here. There is an intuition appealed to by Goldman that if someone is unable to discriminate perceptually between an object of belief and very similar objects, that person lacks knowledge. Suppose Henry is driving in the Wisconsin "Dairy Capital of America" countryside and points out a barn to his son. Ordinarily we would say Henry knows it is a barn because he can tell the difference between barns and other things. Suppose further that there are many fake barns in the area, mere shells which to the ordinary observer look very much like the real thing. Since Henry cannot tell the difference, he does not know that he sees the barn he really sees. If he were to see a fake barn, he would believe that he sees a barn, so his belief does not track the truth. Kripke notes that there might be unusual conditions there such that no fake barn could be red. In that case, there is no possibility of confusing red barns with nearby fake red barns. In that case, Henry knows that he sees a red barn, but he does not know that he sees a barn. But what makes it true that he sees a red barn, the condition that precludes fake red barns, is not

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something about which he has any evidence. This problem seems decisive against the tracking theory as proposed by Nozick, and the theory itself lay dormant until Keith DeRose recently incorporated some elements of it into a "contextualist" theory of knowledge see Chapter 9.

## Chapter 5 : STEAMIX® – Standard

*The 'Thermometer' View of Knowledge. David M. Armstrong. and Branding RÅ©aumur's Thermometer During the Enlightenment.*

Perception and Belief a. Seeing That, Seeing As and Simple Seeing Perception is the process by which we acquire information about the world around us using our five senses. Consider the nature of this information. Looking out of your window, you see that it is raining. Your perception represents the world as being like that. To perceive the world in this way, therefore, it is required that you possess concepts, that is, ways of representing and thinking about the world. In this case, you require the concept RAIN. Such perception is termed "perceiving that," and is factive; that is, it is presupposed that you perceive the world correctly. To perceive that it is raining, it must be true that it is raining. You can also, though, perceive the world to be a certain way and yet be mistaken. This we can call, "perceiving as," or in the usual case, "seeing as". A stick partly submerged in water may not be bent but, nevertheless, you see it as bent. Your perception represents the stick as being a certain way, although it turns out that you are wrong. Much of your perception, then, is representational: It also seems that there is a form of perception that does not require the possession of concepts although this claim has been questioned. It is plausible to claim that cognitively unsophisticated creatures, those that are not seen as engaging in conceptually structured thought, can perceive the world, and that at times we can perceptually engage with the world in a non-conceptual way. You can tell that the wasp senses or perceives your presence because of its irascible behavior. When you are walking along the High Street daydreaming, you see bus stops, waste bins, and your fellow pedestrians. You must see them because you do not bump into them, but you do not see that the bus stop is blue or that a certain pedestrian is wearing Wrangler jeans. You can, of course, come to see the street in this way if you focus on the scene in front of you, but the claim here is that there is a coherent form of perception that does not involve such conceptual structuring. Let us call such baseline perceptual engagement with the world, "simple seeing". This perception involves the acquisition of perceptual information about the world, information that enables us to visually discriminate objects and to successfully engage with them, but also information that does not amount to one having a conceptually structured representation of the world. You can, then, simply see the bus stop, or you can see that the bus stop is blue, or you can, mistakenly, see the bus stop as made of sapphire. These are all forms of perceptual experience, ways you have of causally engaging with the world using your sensory apparatus and ways that have a distinctive conscious or "phenomenological" dimension. Seeing in its various forms strikes your consciousness in a certain way, a way that you are now experiencing as you look at your computer screen. This article investigates the causal and epistemic roles of this perceptual experience. A little more terminology: Consider how these various kinds of perceptual experience are related to our perceptual beliefs. Perceptual beliefs are those concerning the perceptible features of our environment, and they are beliefs that are grounded in our perceptual experience of the world. The content of such beliefs can be acquired in other ways: You could be told that the bus stop is blue, or you could remember that it is blue. Right now, though, waiting for the bus, you acquire this belief by looking straight at it, and, thus, you have a perceptual belief concerning this particular fact. Just how your perceptual beliefs are grounded in your perceptual experience is a contentious issue. There is certainly a causal relation between the two, but some philosophers also claim that it is perceptual experience that provides justification for our perceptual beliefs. This foundationalist claim is denied by the coherentist see sections 3 and 4 below. Perceptual Beliefs First, one does not necessarily come to acquire perceptual beliefs in virtue of simply seeing the world. Simple seeing is something that cognitively unsophisticated creatures can do, creatures such as wasps that do not have more sophisticated beliefs, propositional beliefs. It is plausible, though, that if one sees a certain object as a bus stop, then one would also come to believe that there is a bus stop being seen. In many cases, this is, of course, true, but it is not in all. A famous example is the Muller-Lyer illusion: The two horizontal lines above look as

though they are of different lengths, the upper line being longer than the lower. If we have seen the illusion before, then we do not believe our eyes. Instead, we believe that the lines are the same length which they are. Here is another case: His perception, however, amounts to more than simply seeing; he sees the moon as being made of cheese and his cup of tea as grinning up at him. Yet, because of the doubt fostered by his frequent hallucinations, he does not move from seeing the world as being a certain way to believing that it is. In most cases, though, if one sees the world as being a certain way, then one also believes that it is that way. Last, let us return to the notion of "perceiving that. If one is described as perceiving that the world is a certain way, it is implied that one also believes that the world is so. Thus, we have seen that we can be perceptually engaged with the world in various ways. Such engagement can amount to the mere acquisition of perceptual information, the experience of seeing the world as being a certain way, or the possession of the cognitive states of perceiving and believing that it is so. If all goes well, such perceptual beliefs may constitute perceptual knowledge of the world. According to the traditional account, this is when those beliefs are true and when they are justified. Perceptual knowledge consists in knowledge of the perceptible features of the world around us, and it is that which is grounded in our perceptual experience. Again, the nature of this grounding is controversial. Perceptual experience is certainly causally related to perceptual knowledge; foundationalists, however, make the further claim that such experience provides the justification that is constitutive of such knowledge see section 3. Others, though, including Armstrong section 2a and the coherentists section 4 , do not believe perceptual experience plays this justificatory role with respect to perceptual knowledge. The next section considers this key issue of justification. But consider the issue of skepticism. The skeptical arguments of Descartes have had an enormous influence on both the history and practice of epistemology. He suggests certain scenarios that threaten to undermine all of our empirical knowledge of the world. It could be that right now you are dreaming. If you were, everything might appear to you just as it currently does; dreams are sometimes very real. It is also possible that a powerful demon might be deliberately deceiving you; there may not be an external world at all, and all your perceptual experience and perceptual beliefs may be simply planted in your mind by this evil entity. Given such scenarios, it is not clear how our perceptual beliefs can be justified and thus, how we can have perceptual knowledge. Any reasons you have for thinking that such beliefs correctly represent the world are undermined by the fact that you could have such beliefs even if the external world did not exist. Since the seventeenth century, epistemology has been trying to find a solution to this Cartesian scepticism. This article simply assumes that we can have justification for our perceptual beliefs and that perceptual knowledge is possible. Given this assumption, the focus is on how we should conceive of such justification. Perception, Justification and Causation Perceptual experience provides both causal and justificatory grounding for our perceptual beliefs and for our knowledge of the passing show. In this section, we shall start to look at the causal and justificatory relations between perception, belief and knowledge. As was discussed above, our perceptual experience can be conceptually structured: Thus, such experience could be seen as providing justification for our perceptual knowledge in that you could be justified in taking things to have the properties you see them as having. The fact that perceptual experience is conceptual, however, is not sufficient to ensure that your perceptual beliefs are justified. Dave, a friend of yours, sees every tackle made against a player of West Ham United Football Club as a foul. He is not, however, justified in taking this to be true. Often these clashes are simply not fouls; Dave is wrong, and even when he is correct, when he really sees that a foul has been committed, it would seem that his prejudiced observation of the game entails that in these cases he only gets it right through luck, and thus, he is not justified in his belief. The fact, then, that our experience is conceptual does not entail that we have justified perceptual beliefs or knowledge. Section 3 considers what else needs to be said, and investigates an account of how perceptual experience is seen to provide epistemic justification. First, though, consider an account of perceptual knowledge that does not make use of the notion of justification. Armstrong calls his account a "thermometer model" of knowledge. We can come to have knowledge of the world just as a thermometer can come to represent its own temperature. In both systems, there is simply a lawlike relation between a property of the world and a property

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of a representative device the level of mercury in a thermometer or the state of certain internal cognitive mechanisms of a thinker. Highlighting the role of perceptual experience, Armstrong claims that: Conscious sensation, then, is not essential to perception. I could be correctly said to see the road ahead as I drive late at night on the motorway, even though I have "switched off," and appear to be driving on "autopilot. Similarly, cases of blindsight are also bonafide cases of perception. Blindsight patients claim to have a complete lack of visual experience on, for example, their left side, yet they can make reliable reports about shapes and objects that are presented to this side of their perceptual field they themselves, however, claim that they are merely guessing. They do, then, seem to be acquiring correct beliefs about their environment via a causal engagement between the world and their senses, and thus, they perceive the world even though in such cases the contingent connections with sensation are lost. When one does have conscious perceptual experiences, these do not play a justificatory role; they are simply causally related to perceptual belief and knowledge. It is claimed that a more satisfying theory of perception should include an account of why perceptual experience justifies our perceptual beliefs and that we should not be content with simply an account of why we are caused to acquire them. The following theory of perception attempts to include just such an account of justification. Perception and Foundationalism Foundationalists claim that the superstructure of our belief system inherits its justification from a certain subset of perceptual beliefs upon which the rest sits. These beliefs are termed "basic beliefs. Later, in section 4, we shall see that coherentists take our belief system to be more akin to an ecosystem, with our beliefs mutually supporting each other, rather than relying for their justification on certain crucial foundation stones. There are various versions of this foundationalist approach, two of which are discussed in the next two sections. Traditional Foundationalism Traditionally the foundations of knowledge have been seen as infallible they cannot be wrong , incorrigible they cannot be refuted , and indubitable they cannot be doubted. For empiricists, these foundations consist in your beliefs about your own experience. Your beliefs are basic and non-basic.

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### Chapter 6 : Works by David M. Armstrong - PhilPapers

*Armstrong calls his account a "thermometer model" of knowledge. We can come to have knowledge of the world just as a thermometer can come to represent its own temperature. In both systems, there is simply a lawlike relation between a property of the world and a property of a representative device (the level of mercury in a thermometer or the*

Since all theories accept this knowledge-truth connection, reliabilism as a distinctive approach to knowledge is restricted to theories that involve truth-promoting factors above and beyond the truth of the target proposition. What this additional truth-link consists in, however, varies widely. Perhaps the first formulation of a reliability account of knowing appeared in a brief discussion by F. Ramsey, who said that a belief is knowledge if it is true, certain and obtained by a reliable process. This attracted no attention at the time and apparently did not influence reliability theories of the 60s, 70s, or 80s. He drew an analogy between a thermometer that reliably indicates the temperature and a belief that reliably indicates the truth. According to this account, a non-inferential belief qualifies as knowledge if the belief has properties that are nomically sufficient for its truth, i. This can be considered a reliable-indicator theory of knowing. Alvin Goldman offered his first formulation of a reliable process theory of knowing as a refinement of the causal theory of knowing in a short paper on innate knowledge Goldman. In the 60s and 70s several subjunctive or counterfactual theories of knowing were offered with reliabilist contours. Gail Stine explored this approach with respect to knowledge, skepticism, and deductive closure i. A number of counterexamples have been produced to this condition see especially DeRose. Williamson classifies the safety approach as a species of reliability theory. Reliability theories are partly motivated by the threat of skepticism. Does it mean that your evidence must logically preclude the possibility of error? If so, very few propositions would be known. Such an account is not so seriously threatened by skepticism. Reliability theories of knowledge continue to appeal to epistemologists, and permutations abound. The reliability theories presented above focus on modal reliability, on getting truth and avoiding error in possible worlds with specified relations to the actual one. They also focus on local reliability, that is, truth-acquisition in scenarios linked to the specific scenario in question as opposed to truth-getting by a process or method over a wide range of cases. Other reliabilisms focus on global reliability: Process Reliabilism for Justification The first reliabilist approach to justification, and the one most widely discussed, is process reliabilism. Goldman begins by proposing some constraints or desiderata for any account of justification. First, theories of justification should specify conditions for justified belief that do not invoke the justification concept itself, or any other epistemically normative concepts such as reasonability or rationality. This requirement has bite to it. What kinds of terms or properties are appropriate, then, for constructing an account of justification? Permissible concepts or properties would include doxastic ones, such as belief, disbelief and suspension of judgment; and any other purely psychological concepts, such as ones that refer to perceptual experience or memory. Given the assumption that truth and falsity are non-epistemic notions, they would also be perfectly legitimate for use in analyzing justifiedness. Another admissible element in an account of justifiedness, it was proposed, is the causal relation. Proceeding under these constraints, Goldman was led to the reliable process theory as follows. The main theory is addressed to doxastic justifiedness i. It will be the sole topic of our discussion. First, examples were used to show that whether or not a particular belief is justified depends on how that belief is caused, or causally sustained. Suppose that Sharon believes justifiedly a conjunction of propositions, Q and R, from which P logically follows. And suppose that, soon after forming this conjunction of beliefs, Sharon also forms a belief in P. First, although Sharon believes Q and R, those propositions may play no causal role in her coming to believe P. She may form her belief purely by wishful thinking. She hopes that P is going to be true, and therefore somehow comes to believe it. It is quite confused reasoning but serendipitously leads to P. In neither case is her resulting belief in P justified. This shows that a necessary condition on a belief to be justified is that it be produced or generated in a suitable way. What kinds of belief-forming processes are suitable or proper, and what kinds

are defective or unsuitable? One feature that wishful thinking and confused reasoning have in common is unreliability. By contrast, which types of belief-forming processes confer justification? They include standard perceptual processes, remembering, good reasoning, and introspection. What do these processes share? This formulation is slightly refined later. Reliability might be understood in a frequency sense pertaining to what occurs in the actual world or a propensity sense pertaining both to actual-world and possible-world outcomes. Justification is conferred on a belief by the truth-ratio reliability of the process that generates it. Just how high a truth-ratio a process must have to confer justification is left vague, just as the justification concept itself is vague. The truth-ratio need not be 1. A number of consequences were inferred from these main points, and refinements were added. A reliable inferential process, for example, confers justification on an output belief only if the input beliefs premises are themselves justified. How could their justifiedness have arisen? Presumably, by having been caused by earlier applications of reliable processes. This chain must ultimately terminate in reliable processes that themselves have no doxastic inputs. Perceptual inputs are a good candidate for such processes. Thus, on this approach, justifiedness is often a matter of a history of personal cognitive processes. The initial one was 1: This principle may fit cases of perceptually caused beliefs and other beliefs that make no use of prior doxastic states as inputs, but inferential beliefs seem to require a different principle. When a belief results from inference, its justificational status depends not only on the properties of the inferential process but also on whether the premise beliefs of the inference are themselves justified. To accommodate this, a slightly more complex principle was introduced: By philosophical standards, these are not terribly complex principles; and, perhaps they invoke only a smallish set of core ideas. Thus, process reliabilism is a comparatively simple and straightforward theory. Such simplicity has usually been viewed as a virtue of the approach. After all, theories in this territory are trying to capture the intuitive conception of justification of ordinary folk. How complex can their conception be? *Ceteris paribus*, then, simple theories are preferable to more complex ones. Of course, matters are more complicated than the foregoing principles convey. But we shall not explore this further complication to appreciate its significance, however, see Beddor. The attractiveness of reliabilism can be illustrated by seeing how it handles a challenging type of example. How might it handle directly justified beliefs, for instance? Richard Feldman presents the following case. Two bird-watchers, a novice and an expert, are together in the woods when a pink-spotted flycatcher alights on a branch. Process reliabilism has adequate resources to handle this case Goldman. The crucial difference between expert and novice lies in the difference between their respective belief-forming processes. The expert presumably connects selected features of his current visual experience to things stored in memory about pink-spotted flycatchers, securing an appropriate match between features in the experience and features in the memory store. The novice does no such thing; he just guesses. Because of the influence—though hardly uncontested influence—of this work on process reliabilism, as well as the reliabilist work surveyed in section 1, many commentators see epistemology as having undergone a major shift in recent decades. Since the nineteen sixties, Anglophone epistemology has undergone a paradigm shift: Williams forthcoming Williams himself seeks to resist this revolution, but does not dispute its occurrence. To pinpoint the core changes, it helps to distinguish two types of approaches to justification: Externalism is the new game in town, of which reliabilism is a salient example. What are the main features of internalism and externalism respectively? There are two ways to fix what properties or states of affairs qualify as justifiers, or J-factors, according to internalism. On one option, a property or state of affairs F is a justifier for agent S at t only if F is directly accessible to S at t. On the second option, a property or state of affairs F is a justifier for S at t only if F is a mental state of S at t. What is direct accessibility? Roughly, it means knowability by some introspective or reflective method. Externalism is, generally speaking, the denial of internalism. For present purposes, it is a denial of both of the indicated forms of internalism. Given these definitions, it is pretty obvious that reliabilism must be a variety of externalism, because it holds that being caused by a reliable process is a *prima facie* justifier of a belief. But being reliably caused is neither a pure mental state nor something directly accessible in the intended sense. Being reliably caused is a matter of truth-conduciveness, and truth

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conduciveness is not introspectively or reflectively accessible. Similarly, reliabilism holds that processes used in the past may be justificationaly relevant to a currently held belief because of the historicity of justifiedness. But processes used in the past are not mental states concurrent with the target belief, and are not, in general if at all, directly accessible to an agent now. First, reliability theories avoid the stringent conditions of some internalist theories, conditions that are arguably too demanding to account for the extent of justified belief. Second, examination of cases strongly supports process reliability as central to justification. Thus, although tweaking may be needed, reliabilists see externalism as a good path for epistemology to follow.

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## Chapter 7 : David Malet Armstrong - Wikipedia

*Contents* 12 ix *Non-Inferential Knowledge (i) I What are the paradigms of non-inferential knowledge? II in iv v vi* 13 *The 'Thermometer' view of non-inferential knowledge Deutscher's objection A parallel account of manifestations of skill Further objections Self-fulfilling beliefs Non-Inferential Knowledge (2) I.*

References and Further Reading 1. The Logic of the I-E Debate The simple conception of the I-E debate as a dispute over whether the facts that determine justification are all internal to a person is complicated by several factors. First, some epistemologists understand externalism as a view that knowledge does not require justification while others think it should be understood as an externalist view of justification. This distinction matters to the nature of the internalist thesis and consequently the I-E debate itself. Third, there are two different and prominent ways of understanding what is internal to a person. This bears on the nature of the internalist thesis and externalist arguments against internalism. This section explores these complications.

Knowledge and Justification The traditional analysis of knowledge is that knowledge is justified true belief. As Socrates avers in the *Meno*, knowledge is more than true belief. Superstitious beliefs that just turn out to be true are not instances of knowledge. In the *Theatetus* Socrates proposes that knowledge is true belief tied down by an account. A true belief tied down by an account can be understood as a true belief for which one has adequate reasons. On the JTB account having adequate reasons turns a true belief into knowledge. As explained in the introduction Gettier cases demonstrate that knowledge is more than justified true belief. Suppose that Smith possesses a good deal of evidence for the belief that someone in his office owns a Ford. It turns out, however, that unbeknownst to Smith Jones is deceiving his coworkers into believing he owns a Ford. The Gettier problem led epistemologists to rethink the connection between knowledge and true belief. It is unclear from this move alone whether externalism should be understood as the view knowledge does not require justification or that justification should be understood externally. Other externalists hold that knowledge does require justification but that the nature of the justification is amenable to an externalist analysis see Bergmann On this conception of justification an externalist analysis of the nature of justification is implausible. Externalists have defended both views. Many internalists, by contrast, claim that justification is necessary for knowledge and that the notion of justification may be partially explicated by the concepts of consistency, implication, and coherence. Mike Ditka may have excellent reasons for believing the Bears will win; they have a superior defense and an excellent running back. Nevertheless Ditka may believe that the Bears will win based on wishful thinking. This marks the distinction between propositional and doxastic justification. This leads to a second area of complication in the I-E debate. Accordingly, internalism should be understood as a view about propositional justification. Nevertheless it is important to get the nature of the internalist thesis straight and only then determine the nature of the externalist objections. The two most common ways of understanding internalism has been to take internal states as either reflectively accessible states or mental states. The former view is known as accessibilism and it has been championed by Roderick Chisholm and Laurence Bonjour see also Matthias Steup The latter view is known as mentalism and it has been defended by Richard Feldman and Earl Conee. Since contradictory beliefs cannot both be justified one can ascertain by reflection alone whether pairs of beliefs lack this devastating epistemic property. On the Cartesian view causal relations that hold between beliefs and experiences and beliefs are reflectively accessible. Many scholars, however, believe this view is false. There are varieties of accessibilist views depending on how one unpacks what states count as reflectively accessible. Are these states that one is able to reflectively access now or states that one may access given some time? Bonjour , chapter 2 , for instance, is commonly cited as defending this strong kind of accessibilism. This strong version of accessibilism is often taken to be the purest form of internalism since internalism is not uncommonly associated with a commitment to higher-order principles such as one knows that p only if one knows that one knows that p. Robert Nozick , p. The other prominent view of internal states is that they are mental states. Mentalism, like accessibilism, is a

view about propositional justification, not doxastic justification. Mentalism is connected to accessibilism since according to the Cartesian tradition one can determine which mental states one is in by reflection alone. A defender of a mentalist view needs to explain which mental states determine justificatory status. Do all mental states—“hopes, fears, longings”—determine propositional justification or just some mental states, such as beliefs and experiences? Moreover, a defender of mentalism needs to clarify whether both current and non-current mental states can determine justificatory status. A non-current mental state is a mental state that you do not currently host. For instance, you believed a moment ago that is greater than 86 but currently you are not thinking about this. Many understand the notion of access to be a thinly disguised epistemic term see, for instance, Fumerton p. To have access to some fact is just to know whether or not that fact obtains. This is problematic for an accessibilist because he analyzes justification in terms of access and then use the notion of justification to partially explicate knowledge. The mentalist escapes this problem. However, mentalism does face the objection that since it eschews the notion of access it is not a genuine form of internalism see Bergmann for a further examination of this issue. Taking Stock Before we press on to other issues in the I-E debate let us take stock of what has been considered. Internalism is the view that all the factors that determine propositional justification are either reflectively accessible states that is, accessibilism or mental states that is, mentalism. Internalists also hold that doxastic justification, which is propositional justification and a basing requirement, is necessary for knowledge. We can think of internalism as the view that all the factors that determine justification apart from a basing requirement are internal. Let us call these justification determining factors, minus the basing requirement, the J-factors. Externalists about justification deny that the J-factors are all internal. If, however, we view externalism merely as a negative thesis then we lose sight of its distinctly philosophical motivation. Reasons for Internalism This section examines prominent reasons for internalism. I will discuss three motivations for internalism: These three motivations are conspicuous in arguments for internalism. After giving each reason I shall consider externalist responses. Also I cannot appeal to the causal origins of that belief or to the reliability of the specific belief process. Those sorts of facts are beyond my ken. Whatever I can appeal to will be something I am aware of. I need a good reason for thinking that Karen is good indicator about these sorts of things. So rationality requires good reasons that indicate a belief is true. To draw out this commitment let us expand on the above example. But not every belief of mine is supported by other beliefs I have. These kinds of beliefs are called basic beliefs, beliefs that are not supported by other beliefs. What reason do you have for this belief? It might be difficult to say. Externalists think that that is just too tall of an order. In fact one of the early motivations for externalism was to handle the justification of basic beliefs see Armstrong In general, externalists think that basic beliefs can be justified merely by the belief meeting some external condition. One complication with this, though, is that some externalists think a basic belief require reasons but that reasons should be understood in an externalist fashion see Alston So, to the extent that one is moved by the internalist intuition, one will think that externalism falls. It allows for justification without good reasons. A related argument used to support internalism appeals to the inadequacy of externalism to answer philosophical curiosity see Fumerton If we take up the Socratic project, then we are interested in determining whether our most basic beliefs about reality are likely to be true. This suggests that to the extent that we are interested in whether our beliefs are epistemically justified internalism is the only game in town. Externalist Response One early externalist response was to note that internalists focus on conditions they use to determine justificatory status but that this is conceptually distinct from conditions that actually do determine justificatory status. An adequate definition of albinos may be entirely useless for finding actual albinos see Armstrong , p. What this shows is that internalists need an additional argument from the fact that we can appeal to only internal factors to determine justification to the conclusion that only internal facts determine justification. Another early response to this internalist tactic is to argue that internalism fails to meet its own demands. Alvin Goldman presents an argument of this kind, claiming that there is no definite and acceptable set of internalistic conditions that determine what cognitive attitude a subject should have given her evidence. Goldman argues for this conclusion by supposing that there is some set of internalistic conditions

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and then contenting that there no acceptable way to accommodate this set of conditions within the constraints laid down by internalists. For instance, Goldman reasons that one internalistic constraint is that the correctness of these conditions be reflectively accessible. Goldman then argues that other accounts of the correctness of this procedure likewise fail. So it is not possible for internalism to meet its own severe restrictions. For a similar argument see Richard Foley There is a two-fold implication to this. Second, if one maintains proper doxastic attitudes one will have by and large true beliefs. Locke, like Descartes, connects justification with duty fulfillment. The argument from the deontological character of justification to internalism proceeds as follows. Smith was intellectually virtuous in his believing and drew the appropriate conclusion given the evidence he possessed. Jones should have believed otherwise. Smith appropriately believes this and Jones does not.

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*Armstrong uses the analogy of a thermometer: as a thermometer changes to reflect the temperature of the environment it is in, so must one's beliefs if they are reliably formed. The connection between knowledge and the external world, for Armstrong, is a nomological relationship (that is, a law of nature relationship). [48].*

Questions posed can delve into many areas of philosophy, but key amongst them, is epistemology: One such approach to epistemology is the Classical Analysis of knowledge. But there are many who would disagree with its simplistic, unmitigated approach. The Classical Analysis of Knowledge declares that an agent "A," knows a proposition, "P," if and only if: Suppose that A knows that P. Thus, P is justified. Since P is justified, there is sufficient evidence to establish the truth of P. Call this evidence, the proposition that it is, Q. It seems, then, that A must know Q. Thus, Q is justified. Since Q is justified, there is sufficient evidence to establish the truth of Q. Call this evidence R and as one can see, each proposition is forced to satisfy evidence conditions in order to be considered valid, but the conditions are endlessly supported by other propositions, requiring further justification by more evidence. Armstrong thinks that in order to stop the Regress, virtuous or vicious as it may be, one needs a plausible account of non-inferential knowledge. That is, knowledge that is not justified by another proposition which would, of course, require further justification. Armstrong posits that non-inferential knowledge not to be confused with "self-evident truth," which does not exist according to Armstrong can exist by the following process. A knows that P if and only if: In this manner, the Infinite Regress is halted. Thanks to an external approach to the problem of knowledge, thereby completely avoiding the complicated matter of perception, Armstrong aptly argues what he calls "Externalism. The example used by Armstrong suits my depiction well. In one case, a thermometer malfunctions and shows the temperature to be 12 degrees Celsius when, in fact, it is 24 degrees C. In the human example, it would be like me seeing the Space Shuttle Enterprise fly over me when, in fact, the Enterprise rests in a museum. They are non-inferential false beliefs because although they do not require further propositional support, they are not predicated upon truth. Now suppose the Enterprise flew over me and I did see it! Then, non-inferential true beliefs come into play. These branch into two categories: In other words, the thermometer got lucky. In other words, non-inferential true belief that falls short of knowledge. When the thermometer has been properly constructed and calibrated, and it proceeds to display the correct temperature it is measuring- just as when I am not hallucinating, but look up and see the Shuttle Enterprise streak by me at subsonic speeds- knowledge exists. Though the thermometer model illustrates the point, I refer back to the explanation of non-inferential knowledge and its agent, evidence, and proposition. If the thermometer agent A is good and consistent property R, and the thermometer is reading the temperature that it really is S being the true, outside temperature, then non-inferential knowledge is acquired. In this manner, one may know something "reliably. Reliabilist Externalism shows that introspective analysis, and hence proposition built upon proposition, can never lead to true knowledge. Law-like relationships between properties of a person and evidence of the belief must concur in order for true knowledge to be ascertained. With non-inferential knowledge acquired, one can be sure to know that David Armstrong would approve. His essay on this epistemological topic reflects careful study, disproving all the options, until Reliabilist Externalism rears in as the champion of knowledge. It is practical and suits the human condition Armstrong swiftly dismissed the inherently pessimistic skepticism, did he not?

### Chapter 9 : Armstrong Flooring Residential

*Belief, truth, and knowledge syllabus â€¢ 3 (optional) Armstrong, "The thermometer model of knowledge" (B&D ch. 7) Nozick, "Knowledge and skepticism" (B&D ch. 25).*