

# TIME FOR PRAGMATISM

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Physics, Time and Agency

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## WHAT IS NEO-PRAGMATISM?

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- In both cases we are offered ‘psychological analysis’ (Ramsey’s term), not metaphysics – a story about how causal thinking arises in creatures like us, not about what causation is.
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## EXPLAINING THE ‘MANIFEST IMAGE’

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- Neo-pragmatism is always seeking to explain some aspect of **how the world looks to us** (Wilfrid Sellars’ **‘manifest image’**) in terms of **some feature of us**.
- In Ramsey’s case, e.g., explaining the causal character of the manifest image in terms of the epistemic viewpoint of a deliberating agent.
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## LOCAL OR GLOBAL NEO-PRAGMATISM?

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- How far do we go?
- Is neo-pragmatism a local view, applicable to some concepts but not to others?
- Or is it global? Is there a pragmatic ingredient in all our concepts, as William James thought: ‘The trail of the human serpent is thus over everything’
- My argument: Thinking about temporal aspects of language and thought supports James’ global conclusion.

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## ~~FIVE~~ SIX STEPS TO GLOBAL PRAGMATISM

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1. Temporal indexicals
2. What makes time special?
3. The temporal modalities – causation and probability
4. Dispositions
5. Language points to the future
6. Predictive processing

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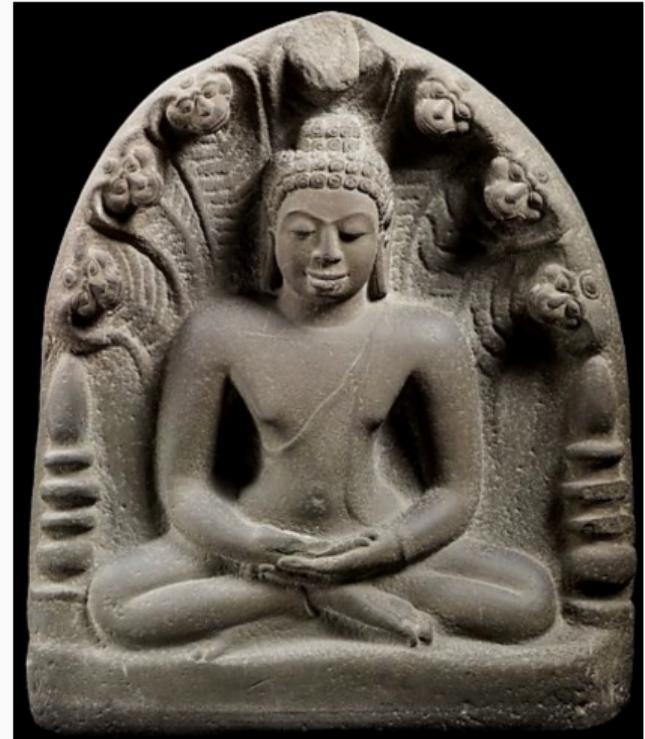
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## 1. TEMPORAL INDEXICALS

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- Consider ‘now’ (and its synonyms), terms such as ‘yesterday’, ‘today’, and ‘tomorrow’, and tensed expressions in general.
- These ‘indexical’ expressions indicate the temporal location of something in relation to our own temporal location at the time of speaking.
- Other kinds of indexicals do a similar thing with respect to space ('here', 'there'), or personal identity ('I', 'our', 'you').

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## THE ADVANTAGES OF PRAGMATISM

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- For spatial and personal indexicals ('here' and 'I') almost everybody is a neo-pragmatist. Almost nobody thinks that in using these terms we are talking about some distinctive aspects of the world – an objective **Here** or **Me**.
- But many philosophers (and some physicists) think the temporal case is different – that there is an objective **Now** in a sense in which there isn't an objective **Here**.
- By treating **Now** like **Here**, pragmatism explains the use of tensed language without requiring a distinctive subject matter.

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## 2. WHAT MAKES TIME SPECIAL?

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Four ways in which time seems to differ from space

- The reality of the Now.
- The sense that time ‘passes’, or ‘flows’.
- The difference between the ‘fixed’ past and the ‘open’ future.
- The sense that time has a preferred direction.

I recommend pragmatism on all points.



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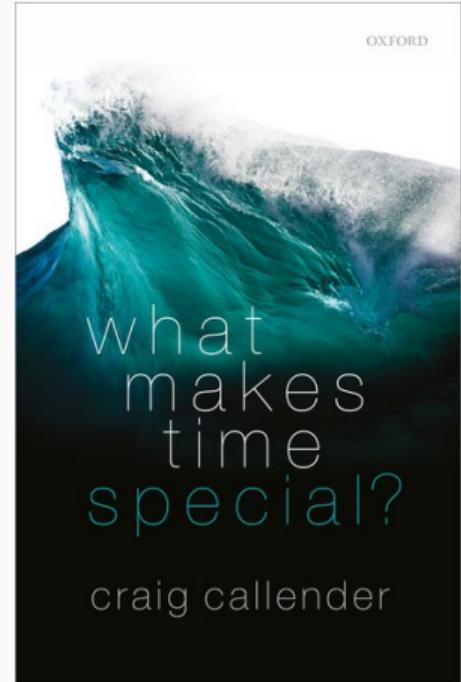


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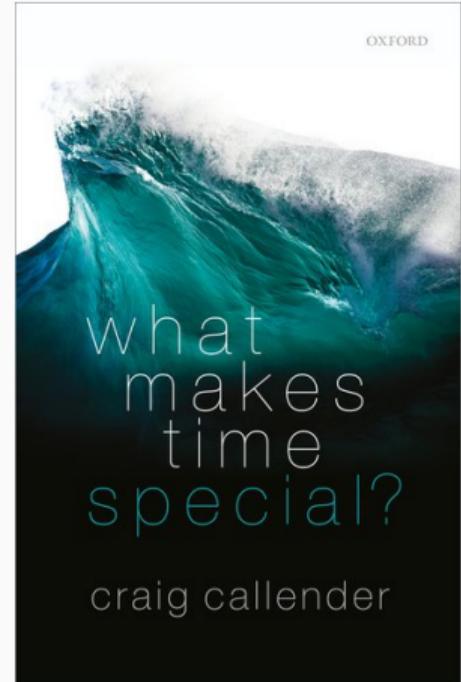


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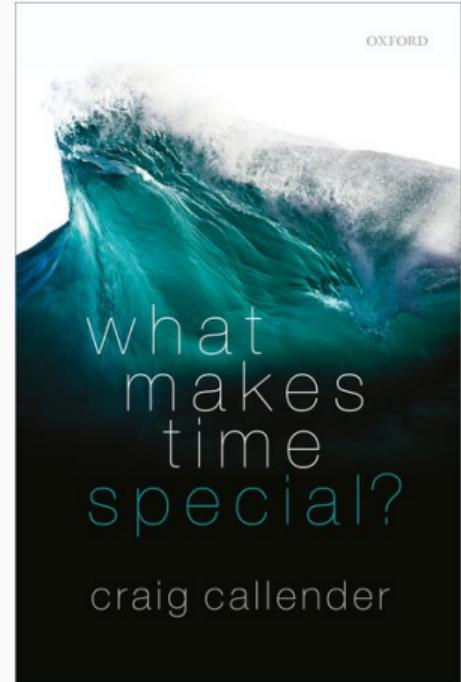


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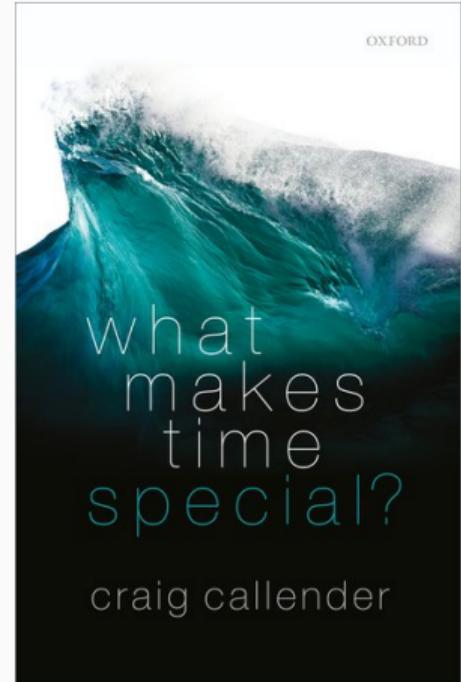


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## RUSSELL & RAMSEY ON THE DIFFERENCE BETWEEN PAST AND FUTURE

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*We all regard the past as determined simply by the fact that it has happened; but for the accident that memory works backward and not forward, we should regard the future as equally determined by the fact that it will happen. (Russell 1913)*

*It is, it seems, a fundamental fact that the future is due to the present ... but the past is not. What does this mean? It is not clear and, if we try to make it clear, it turns into nonsense or a definition. ... What then do we believe about the future that we do not believe about the past? ... This seems to me the root of the matter; that I cannot affect the past, is a way of saying something quite clearly true about my degrees of belief. (Ramsey 1929, emphasis added – answering a question he seems to have found in Eddington (1928))*

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## BOLTZMANN ON THE DIRECTION OF TIME

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*For the universe, the two directions of time are indistinguishable, just as in space there is no up and down.* (Boltzmann 1895)

- It is hard to make sense of what it would be for time to have an intrinsic direction, at least if we want to connect that fact to our ordinary dealings with time, in physics and in ordinary life.
- But it is easy to explain why temporally-oriented creatures such as us – all sharing the same orientation – should think of this as an objective feature of our environment, as our ancestors did with up and down.
- Recognition of the perspectival element has its usual Copernican advantages: avoiding a need for structure in the world by explaining the appearance of structure as an artifact of our viewpoint.

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### 3. THE TEMPORAL MODALITIES – CAUSATION AND PROBABILITY

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In both cases, there are two big things to explain:

- The connection to rational decision – the ‘Practical Relevance Constraint’
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For probability, the Practical Relevance issue is well-known:

- Ramsey objects to Keynes' objective probability relations that such relations 'would stand in such strange correspondence with degrees of belief'.
- 'Knowledge of probability relations is important chiefly for its bearing on action' (Kneale 1949)
- 'It must follow from our account [of chance] that the greater the known chance of an event the more reasonable it is to act as if it will occur.' (Mellor 1971)
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- It is hard to find the equivalent point in mainstream metaphysics of causation – many think we need objective causal relations to **explain** rational action.
- But there is also a neo-pragmatism tradition, again dating from Ramsey. This explicates causal concepts in terms of the agent's perspective. As Ramsey puts it, 'from the situation when we are deliberating seems to me to arise the general difference of cause and effect.' (Ramsey 1929)
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## 4. DISPOSITIONS

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## STEP 4. A WORLD OF DISPOSITIONS

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*Dispositions are ... those properties picked out by predicates like 'is fragile' or 'is soluble', or alternatively by sentences of the form 'x is disposed to break when struck' ... Dispositions so understood have figured centrally in the metaphysics and philosophy of science of the last century (Carnap 1936 & 1937, Goodman 1954), and also in influential accounts of the mind (Ryle 1949). (Maier, SEP, 2020)*

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- In ascribing a dispositional property, we commit ourselves to an **expectation** about how the object would behave in certain circumstances.
- Expectation is a psychological notion. Where should we look for an account of the psychological relevance of dispositional properties? (The Practical Relevance issue again.)

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Again, we can distinguish two approaches:

- The metaphysical approach takes on board the task of explaining the psychological relevance in terms of the nature of dispositions.
- The neo-pragmatist approach begins at the other end, saying that we develop these descriptions because they are what we need, as epistemically-limited creatures concerned about our future welfare. (The 'expectational' character of the manifest image is grounded in our own psychology and temporal character.)

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## DISPOSITIONS – NEO-PRAGMATIST LANDMARKS

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In this case, neo-pragmatism has a long history. Some landmarks:

- Hume on causal necessity, as a ‘projection’ of expectations acquired as a result of observed regularities.
- Wittgenstein (1930): ‘When I say “There is a chair over there”, this sentence refers to a series of expectations. I believe I could go there, perceive the chair and sit on it, I believe it is made of wood and I expect it to have a certain hardness, inflammability etc.’

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- Ryle (1949), described by Bird (2012): '[T]he sentence "this lump of sugar would dissolve if placed in water" does not assert some factual truth, such as the attribution of a property to a thing. Rather, along with law-statements, such assertions must be understood as inference-tickets: one is entitled to infer from "this lump of sugar is in water" to "this lump of sugar is dissolving."
- Brandom's inferentialist picture puts the dynamical character of dispositional concepts at the core of all empirical concepts whatsoever. Inspired by Kant, via Sellars, it replaces the Humean habitual conception of the psychology involved with a normative one. Concepts understood in terms of their role in the dynamic behaviour of norm-governed inference-engines.

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## DISPOSITIONS – NEO-PRAGMATIST CONCLUSIONS

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- A major part (at least) of the properties we ascribe to the world reflect the temporal character of human thought – in particular, our striving to prepare for an uncertain future.
- In this way **our own temporal character** is reflected in our image of the world we inhabit, both in science and in everyday life.
- Again, these are pragmatist lessons. They require that we reflect on our own natures, as physical entities of a particular kind – processes embodied in time, in which each stage has an interest in later stages.
- But is this necessarily **global** neo-pragmatism? Couldn't there be an immediate, non-dispositional core to our picture of the world, untouched by these points?

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- He goes on: ‘The representation loses all its value if the hypothetical element is dropped, because then the proposition does not point to the future any more’.
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- He goes on: ‘The representation loses all its value if the hypothetical element is dropped, because then the proposition does not **point to the future** any more’.
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- When we use a sign, it is a gift to the future in some way – something we put in place for later use (by someone else, or by our later selves).
- This depends on the fact that we are all disposed to produce and interpret signs in pretty regular ways – not much variation between us, or individually over time.
- The famous rule-following considerations (Wittgenstein, Kripke) turn on the observation that no finite amount of training can guarantee that two speakers won't diverge at some later point.
- This reveals a sense in which all of language depends on contingent facts about us, so it provides an argument for global pragmatism (Price 1988, Pettit 1991, Wright 1992).

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## 6. PREDICTIVE PROCESSING

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## THE PREDICTIVE PROCESSING FRAMEWORK

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*A new theory is taking hold in neuroscience. ... It is the theory that the brain is a sophisticated hypothesis-testing mechanism, which is constantly involved in minimizing the error of its predictions of the sensory input it receives from the world. This mechanism is meant to explain perception and action and everything mental in between. ... It has enormous unifying power and yet it can explain in detail too.* (Hohwy, 2013)

# THE PREDICTIVE PROCESSING FRAMEWORK

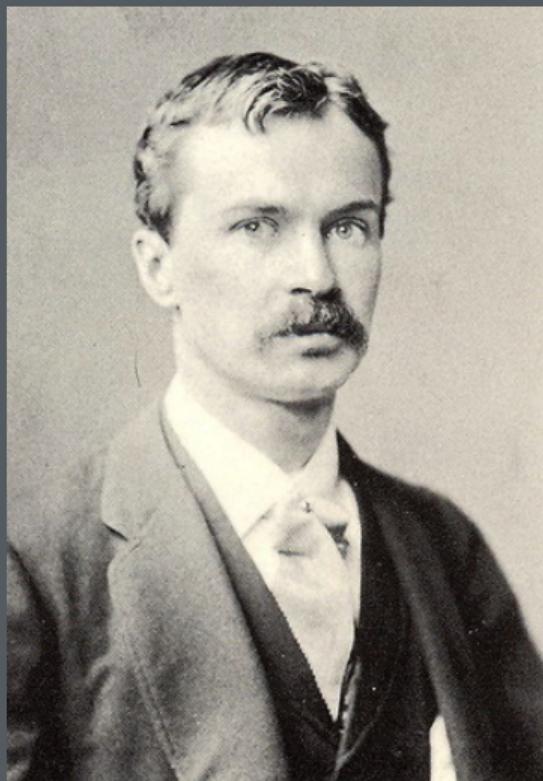
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*Creatures deploying this kind of strategy learn to become knowledgeable consumers of their own sensory stimulations. They come to know about their world, and about the kinds of entity and event that populate it. Creatures deploying this strategy, when they see the grass twitch in just that certain way, are **already expecting** to see the tasty prey emerge, and **already expecting** to feel the sensations of their own muscles tensing to pounce. An animal ... that has that kind of grip on its world is already deep into the business of understanding that world.* (Clark 2016)

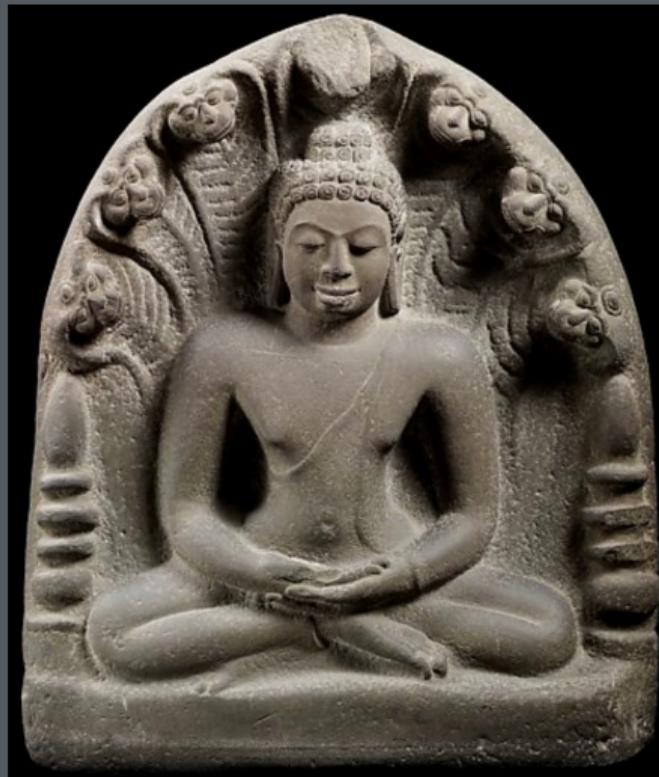
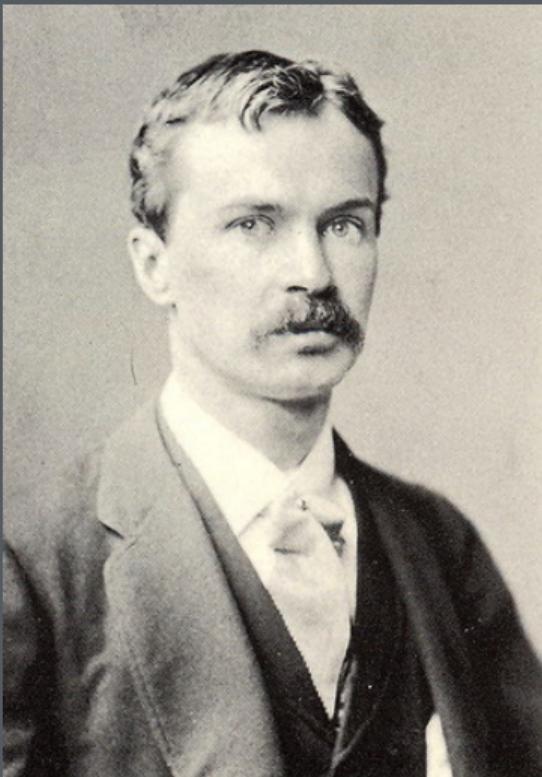
## IMPLICATIONS FOR PRAGMATISM?

*[T]he initial appearance of a deep conflict between pragmatism and predictive processing is illusory. Far from an image of minds as passive spectators on the world ... predictive processing advances a fundamentally pragmatic brain, striving to maintain the viability of the organism under hostile conditions and in so doing actively generating an affective niche—an experienced world structured by the idiosyncratic practical interests of the organism. What emerges is something much closer to Price's (2011) metaphor of a "holographic data projector" ... than a passive reflection of an independently identifiable world. As Clark (2015, 4) puts it, it is a vision of experience that is "maximally distant from a passive ("mirrors of nature") story." (Williams 2018)*

THE END



THE END



## BONUS: DENNETT LINKS PPF TO HUMEAN PROJECTIVISM

*One of the things in our world is causation, and we think we see causation because the causation in the world directly causes us to see it – the same way ... tigers in moonlight cause us to see tigers. When we see the thrown ball causing the window to break, the causation itself is somehow perceptible “out there.” Not so, says Hume. This is a special case of the mind’s “great propensity to spread itself on external objects” ...*

## BONUS: DENNETT LINKS PPF TO HUMEAN PROJECTIVISM

*In fact, [Hume] insisted, what we do is misinterpret an inner “feeling,” an anticipation, as an external property. The “customary transition” in our minds is the source of our sense of causation, a quality of “perceptions, not of objects,” but we mis-attribute it to the objects, a sort of benign user-illusion, to speak anachronistically. ...*

## BONUS: DENNETT LINKS PPF TO HUMEAN PROJECTIVISM

*If we use the shorthand term “projection” to try to talk, metaphorically, about the mismatch between manifest and scientific image here, what is the true long story? What is literally going on in the scientific image? A large part of the answer emerges, I propose, from the predictive coding perspective.*

## BONUS: DENNETT LINKS PPF TO HUMEAN PROJECTIVISM

Think of the cuteness of babies. It is not, of course, an “intrinsic” property of babies, though it seems to be. What you “project” out onto the baby is in fact your manifold of “felt” dispositions to cuddle, protect, nurture, kiss, coo over, ... that little cutie-pie. It’s not just that when your cuteness detector (based on facial proportions, etc.) fires, you have urges to nurture and protect; you **expect** to have those very urges, and that manifold of expectations just is the “projection” onto the baby of the property of cuteness. When we expect to see a baby in the crib, we also expect to “find it cute” – that is, we **expect** to **expect** to feel the urge to cuddle it and so forth.

## BONUS: DENNETT LINKS PPF TO HUMEAN PROJECTIVISM

*When our expectations are fulfilled, the absence of prediction error signals is interpreted as confirmation that, indeed, the thing in the world we are interacting with has the properties we expected it to have. Cuteness as a property passes the Bayesian test for being an objective structural part of the world we live in, and that is all that needs to happen. Any further “projection” process would be redundant.*

## BONUS: DENNETT LINKS PPF TO HUMEAN PROJECTIVISM

*What is special about properties like sweetness and cuteness is that their perception depends on particularities of the nervous systems that have evolved to make much of them. The same is of course also true of colors. This is what is left of Locke's (and Boyle's) distinction between primary and secondary qualities.*  
(Dennett 2013)