**Do Semantics Properties Involve the Future？**

**Abstract**

Temporal Externalism posits the counterintuitive claim that the semantic properties of terms are influenced not only by present and past linguistic practices but also by future linguistic practices. In this paper, I primarily introduce a new challenge to Temporal Externalism, arguing that it presupposes a meta-belief about future linguistic practices but fails to explain how this belief relates to future properties. I then briefly highlight that Jussi Haukioja’s recent defense of Temporal Externalism still does not address the challenges posed by this meta-belief. Therefore, I conclude that Temporal Externalism is untenable.

**Keywords:** Temporal externalism, future events/practices, meta-belief; disposition

**1. Introduction**

Over the past few decades, Saul Kripke (1980), Tyler Burge (1979), and Hillary Putnam (1975), through thought experiments like Twin Earth, have convincingly shown that two individuals or communities can use a term identically at a given time, yet the meaning of the term can differ. This claim is known as semantic externalism and poses a serious challenge to traditional semantic internalism. Recently, semantic externalism has been extended and gained support from a handful of philosophers（Jackman 1999, Tanesini 2014, Rouse 2014, Haukioja 2020）. This extended claim is called Temporal Externalism.

(Semantic Externalism): At time T, a speaker’s beliefs do not (always) determine the extension of the terms they use at that moment. Events/practices from the past or present can be part of the factors determining the extension.

(Temporal Externalism) (TE):At time T, a speaker’s beliefs do not (always) determine the extension of the terms they use at that moment. Not only can past or present events/practices be part of the factors determining the extension, but future events/practices can also be part of these determining factors.

The key point of TE is that *future events/practices* can be among the set of factors that do play a role in determining extensions. If TE were correct, it would further the development of semantic externalism. However, TE is considered counterintuitive: why should the extension of a term depend on its use over decades or centuries（Wilson 1982, Ebbs 2000, Brown 2000, Stoneham 2003, Reinikainen 2019）? TE supporters argue their case with various thought experiments, among which the Druid case is a classic.

In the Druid case, the agent’s beliefs of a term develop differently due to different events/practices encountered in various scenarios. However, the agent naturally believes their understanding of the term remains unchanged across these scenarios. This paper identifies the root of the intuition violation in the Druid case. In §2, I introduce the Druid case to show how TE is defended. In §3, which is the most crucial part, I point out that TE supporters implicitly presuppose a meta-belief that includes future events/practices but fail to explain how this belief connects with these future events/practices, thus creating a challenge. In §4, I briefly argue that Jussi Haukioja’s recent defense of TE cannot avoid the challenge brought by meta-beliefs. Therefore, I conclude that TE is untenable.

**2. Druid Case and TE**

Henry Jackman’s (1999: 158-160) classic cases used to discuss TE include Grant’s Zebra case and the Druid case, both of which are adapted from cases originally proposed by Mark Wilson (1982: 550 & 572) in his earlier work. This paper will focus on the Druid case.

Imagine an isolated island completely cut off from the outside world, inhabited by a tribe called the Druids. The Druids only know the vocabulary within their tribe and have no access to any external information. For example, in 2024, they have only seen various birds on the island and have never encountered rockets, aircrafts, or other flying objects. Therefore, they use the term “Ave” to describe these birds. Suppose that before time T1, the Druids’ beliefs about “Aves” (i.e., Ave-Beliefs) were “only Aves can fly” and “all Aves are living beings.” Then, future events/practices of the Druids diverge into two different scenarios (Scenario 1 and Scenario 2).

**Scenario 1:** A military aircraft unexpectedly flew over this isolated island during a mission. Druid Edwin saw the aircraft flying in the sky and, before it landed, he might have chosen to describe it using the term “Ave.” For Edwin, the aircraft could fly, and due to its distance, he likely thought it was a living being. However, at time T1, when the aircraft landed in front of him, Edwin, upon close inspection of this massive object, realized it was not a living being. Intuitively, we would think that Edwin would abandon using “Ave” to describe the aircraft, or he might not know what term to use for it. The reason is simple: Edwin discovered that the aircraft was not a living being, which was inconsistent with his previous Ave-Beliefs— “only Aves can fly” and “all Aves are living beings.”

However, TE supporters further hypothesize that Edwin, at time T1, did not stop using “Ave” to describe the aircraft; instead, Edwin continued to do so. Edwin’s approach was to recognize that his past Ave-Beliefs were incorrect and to modify his Ave-Beliefs from “only Aves can fly” and “all Aves are living beings” to “only Aves can fly.” As a typical TE supporter, Henry Jackman (1999: 158), states: “Edwin understands himself as having always meant flying thing by ‘ave,’ and recognizes that a number of those earlier beliefs that he had about aves (such as that they were all living things) were false”.

More importantly, although Edwin claims that his Ave-Beliefs before time T1 were incorrect, he believes that his understanding of “Ave” has *not changed* before and after T1. Perhaps, before T1, because all the flying things Edwin had seen (the island’s birds) were living beings, he was unable to correctly express his Ave-Beliefs in the past. But since Edwin’s practical information expanded at time T1—seeing the aircraft—he realized that flying things are not necessarily living beings. Thus, he recognized that his past Ave-Beliefs (limited by practical information) were incorrect, and he modified his Ave-Beliefs at T1. Despite the modification of his Ave-Beliefs, Edwin would still naturally think that his understanding of “Ave” has not changed before and after T1, and that the objects he always intended to describe with “Ave” include the aircraft.

**Scenario 2:** For some reason, the aircraft had already crashed on the island before Edwin discovered it. When Edwin saw the crashed aircraft at time T1, would his Ave-Beliefs be modified? The answer is no. At time T1, Edwin would neither think that the aircraft could fly nor that it was a living being. He simply wouldn’t choose “Ave” to describe the aircraft. Therefore, unlike in Scenario 1, in Scenario 2, Edwin’s Ave-Beliefs at time T1 remain unchanged, still being “only Aves can fly” and “all Aves are living beings.”

Of course, TE supporters would readily acknowledge that although Edwin’s Ave-Beliefs did not change at time T1 in Scenario 2, his beliefs about other terms might have. For instance, initially, because the crashed aircraft was far away, Edwin thought it was a newly built house. Suppose that before time T1, Edwin’s beliefs about the term “House” (i.e., House-Beliefs) included “only houses can accommodate people,” “all houses have hard shells,” and “all houses are made of wood.” However, at time T1, upon close inspection of the aircraft, Edwin might realize that it was not made of wood. He would then recognize that his previous House-Beliefs were incorrect and modify them to “only houses can accommodate people” and “all houses have hard shells.”

Despite the modification of his House-Beliefs, Edwin would still naturally think that his understanding of “House” has not changed before and after time T1, and that the objects he always intended to describe with “House” include the crashed aircraft.

Comparing Scenario 1 and 2, the claims of TE become increasingly clear. Future events/practices in the world play a role in determining the meaning of terms. For Edwin, the meaning of the term “Ave” is influenced by events/practices after time T1. In both Scenario 1 and Scenario 2, because of the different events/practices Edwin experiences at time T1—encountering a slowly descending aircraft in Scenario 1 and encountering a crashed aircraft in Scenario 2—Edwin’s Ave-Beliefs start to diverge at time T1. Moreover, at time T1 in both scenarios, despite the different developments of his Ave-Beliefs, Edwin naturally believes that his understanding of “Ave” has *not changed*.

The counterintuitive phenomenon begins to emerge. Since Edwin believes that his understanding of “Ave” at time T1 in both scenarios has not changed from before time T1, why do his Ave-Beliefs develop differently at time T1 in the two scenarios—changing in Scenario 1 but remaining the same in Scenario 2? I locate the root of this counterintuitive phenomenon in the TE supporters’ handling of the ambiguous boundary between the supposedly unchanged understanding and the changing Ave-Beliefs. In the next section, I will clarify these two aspects and point out the resulting contradictions faced by TE.

**3. Temporally Stable Meta-Beliefs**

What is Ave-Beliefs? In the druid case, Edwin’s Ave-Beliefs before time T1 are “only Aves can fly” and “all Aves are living beings.” At time T1 in Scenario 1, Edwin’s Ave-Beliefs are modified to “only Aves can fly,” while in Scenario 2, Edwin’s Ave-Beliefs remain unchanged. We can see that Edwin modifies or does not modify his Ave-Beliefs based on the events/practices he encounters in the future. This can be further understood as Edwin always modifying his Ave-Beliefs at some future time point based on the *known* events/practices at that time point.

The term “*known****”*** is crucial here. At time T1 in Scenario 1, because Edwin encounters an aircraft flying overhead and slowly landing in front of him, he, based on the known information about the aircraft, chooses to modify his Ave-Beliefs from “only Aves can fly” and “all Aves are living beings” to “only Aves can fly.” At time T1 in Scenario 2, because Edwin encounters a crashed aircraft and, based on the known information about the aircraft, chooses to describe it with the term “House,” he does not modify his Ave-Beliefs.

Despite the potential modification of Ave-Beliefs at time T1, TE supporters claim that Edwin’s understanding of “Ave” at time T1, whether in Scenario 1 or Scenario 2, remains naturally consistent with his understanding before time T1. As Jackman (1999: 159) states: “In spite of the initial unclarity in his usage, Edwin would have understood himself as having always meant bird by ave, and recognized that a number of those earlier beliefs that he had about aves (such as that only aves could fly) were false.”

Although TE supporters do not explicitly discuss what “*understand*” means, expression like “having always meant” clearly indicate that they endorse the idea that Edwin’s understanding of the term “Ave” exhibits *temporal stability*. For Edwin, his understanding of “Ave” remains stable and unchanged before and after time T1, regardless of the different events/practices he encounters at time T1. This differs from Ave-Beliefs, which need to be modified based on “known” information at any given moment. See Figure 1.

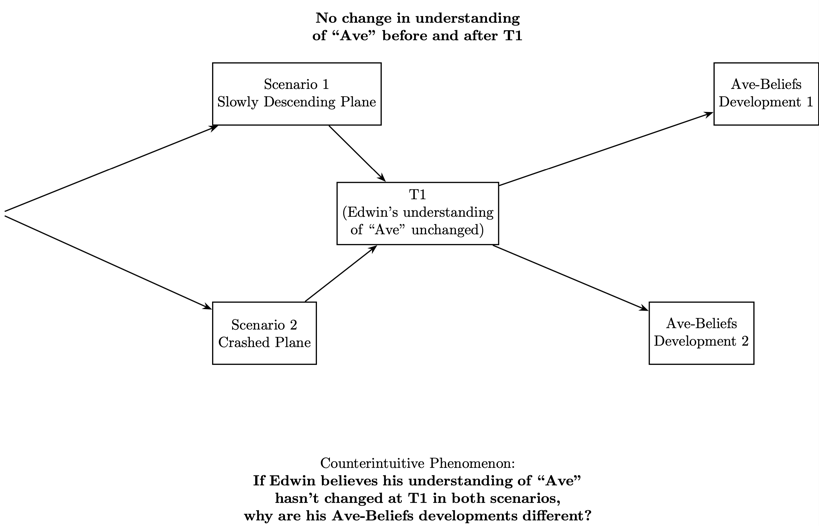


Figure 1

So, despite this understanding being temporally stable and unchanging, what is its essence? Claiming to have a certain understanding of a term implies having a belief about that term, something TE supporters would not easily refute. Otherwise, such an understanding would sound even more absurd—if not a belief, what could it be? Therefore, the essence of this understanding can be viewed as originating from a temporally stable and unchanging belief Edwin holds about “Ave,” which I term *Meta-Ave-Beliefs*. This belief remains stable regardless of the events/practices Edwin encounters in the future. Unlike Meta-Ave-Beliefs, Ave-Beliefs are subject to modification based on the events/practices Edwin encounters in the future.

If TE supporters do not acknowledge this distinction, they must provide a detailed explanation of why Edwin, at time T1 in both Scenario 1 and Scenario 2, would naturally believe that his understanding of the term “Ave” has not changed, even though the development of his Ave-Beliefs has diverged.

At this point, it becomes clear that TE supporters implicitly presuppose the existence of two distinct types of beliefs for Edwin: AVE-BELIEFS and META-AVE-BELIEFS.

In the Druid case, before time T1, Edwin already holds the temporally stable Meta-Ave-Beliefs. However, he can only consciously use the limited Ave-Beliefs he holds at the present moment: “only Aves can fly” and “all Aves are living beings.” Once Edwin’s experience with future events/practices expands at time T1, he will realize that his previous Ave-Beliefs were incorrect and promptly revise them. At the same time, because he has the temporally stable Meta-Ave-Beliefs, he will believe that his understanding of “Ave” has always remained the same.

For example, before time T1 in situation 1, Edwin did not know about aircrafts that can fly but are not living beings. As a result, his Ave-Beliefs — “only Aves can fly” and “all Aves are living beings”—*did not consciously* reflect his commitment to the world when using “Ave.” At time T1, Edwin’s experience with aircrafts increased, leading him to realize that his previous Ave-Beliefs were incorrect and revise them to “only Aves can fly.” Edwin would think that, even though he *was unaware of* it before, he has always understood “Ave” to mean flying things, as his Meta-Ave-Beliefs remained unchanged. We can distinguish three important differences between these two beliefs.

First, Ave-Beliefs are unstable at any given moment, constantly changing with future events/practices, whereas Meta-Ave-Beliefs exhibit strong temporal stability. Second, Ave-Beliefs are *occurrence* beliefs, which can always be fully realized by Edwin at any moment, while Meta-Ave-Beliefs are *dispositional* beliefs that Edwin holds unconsciously. For TE supporters, even though Edwin is unaware of his Meta-Ave-Beliefs, these beliefs play a crucial role when Edwin encounters future events/practices. What role do they play? As Edwin encounters various future events/practices, his dispositional Meta-Ave-Beliefs are continuously instantiated as present occurrence Ave-Beliefs. This is why Edwin realizes at time T1 that his past Ave-Beliefs were incorrect: every time Edwin’s Meta-Ave-Beliefs are instantiated in the future, he has the potential to realize that there is a false. And despite recognizing these falsities each time, Edwin still believes that his understanding of “Ave” has always been the same, due to the existence of dispositional Meta-Ave-Beliefs.

This leads to the third distinction between the two types of beliefs—the capacity distinction. Due to their inherent instability, the limited content of Ave-Beliefs is always modified with the different events/practices Edwin encounters. This modification corresponds to the instantiation process of the richer content of Meta-Ave-Beliefs. TE Supporters might argue that this modification is based on the “known” events/practices at the time and does not involve the instantiation process of Meta-Ave-Beliefs. However, it should be emphasized again that every time Edwin modifies his Ave-Beliefs, he believes his understanding of “Ave” *has always been* the same. As I have explained earlier, this so-called consistent understanding stems from the existence of Edwin’s Meta-Ave-Beliefs, so TE supporters cannot easily refute this instantiation process.

We have seen that such an instantiation-like process is necessary for TE. Otherwise, TE supporters cannot explain why Edwin can successfully modify his Ave-Beliefs whenever he encounters new events/practices, while still maintaining that his understanding of “Ave” has not changed. The reasonable explanation is that Edwin unconsciously holds a dispositional Meta-Ave-Belief about “Ave.” Although Edwin cannot be aware of this belief, it guides his current Ave-Beliefs when new events/practices arise. However, can such an instantiation process truly function properly? Acknowledging the proper functioning of the instantiation process implies that the rich and stable content of dispositional Meta-Ave-Beliefs ALREADY INCLUDESthe properties of FUTURE events/practices. Claiming that Edwin holds beliefs about events/practices that include future properties is strange, even absurd.

TE supporters should understand such meta-beliefs as containing a placeholder for future events/practices. This means that the meta-beliefs for TE not only include current and past practices but also leave room for future ones. This is just a specific instance of a more general hypothesis. According the more general hypothesis, all forms of externalism presuppose such meta-beliefs, including familiar views like natural kind externalism: Oscar and Twin Oscar share a meta-belief that “water is whatever substance actually located present in lakes and rivers, or something in that direction”. For natural kind externalism, the placeholder belief is an abstract understanding of a natural kind, it is based on known events/practices. Even if the specific chemical composition (whether H2O or XYZ) is unknown, this meta-belief is not challenged.

In contrast, for TE, however, meta-beliefs must also account for unknown future possible events/practices (e.g., encountering a slowly descending aircraft in Scenario 1 and encountering a crashed aircraft in Scenario 2). These meta-beliefs need placeholders for future events/practices, meaning future events will fill the gaps in current meta-beliefs. However, it is impossible to preset them. Compared to natural kind externalism, the meta-beliefs in TE are particularly problematic.

**4. Against Jussi Haukioja’s View**

The recent attempts by TE supporters Jussi Haukioja might be seen as echoing the existence of Meta-Ave-Beliefs. However, his view fundamentally fails to address the challenge of explaining how Meta-Ave-Beliefs connect to or include the properties of future events/practices.

Haukioja’s core viewpoint is as follows:

*Temporal externalism would be true if, for some speaker S and term w, S is disposed to re-evaluate her use of w, in response to information about future use of w in his/ her speech community. Roughly, this means that S is disposed to accept and go along with a range of different interpretations of w, and retract or not retract accordingly. Of course, in most cases speakers do not in fact receive the relevant kind of information about future use. What matters is the presence of such dispositions, not that they in fact be manifested. (Haukioja 2020: 925)*

Haukioja believes that Edwin’s past use of the term “Ave” exhibited a dispositional pattern. This pattern includes not only past tendencies in the application and interpretation of the term but also the speaker’s intention to reassess, retract, and revise its use based on experiential information. According to his view, a theory of meaning is essentially a theory about these patterns of dispositions.

However, if Edwin receives information from the future at a given moment, what allows him to confirm that his beliefs at that moment include or exclude properties related to such event/practice information? Haukioja’s perspective suggests that Edwin has an already existing second-order dispositional judgment about whether to retract or reassess his use of a term at that moment. What Haukioja fails to point out is that supporting the existence of such a second-order judgment necessitates the presence of a belief *content* that underlies this judgment. This belief aligns with Meta-Ave-Beliefs.

We can argue that without Meta-Ave-Beliefs, Edwin’s second-order judgment would be inoperative when future event/practice information is conveyed to him at a given moment. Therefore, to support the idea that Edwin inherently has such a second-order judgment, Haukioja must accept the existence of Meta-Ave-Beliefs; otherwise, he must acknowledge that Edwin *originally* lacked such a second-order judgment. If Edwin creates a *new* second-order judgment based on the known information from the future when the future event/practice information is conveyed to him, then Haukioja cannot use this to support TE but can only show openness to traditional forms of externalism, such as Putnam-style externalism.

Thus, if Haukioja believes that Edwin inherently has a second-order disposition when future event/practice information is conveyed to him at a certain moment, he must acknowledge the existence of Meta-Ave-Beliefs. If, at a given moment, future event/practice information—such as seeing an aircraft land at T1 in a particular situation—can be conveyed back to Edwin, it is reasonable to believe that Edwin would more clearly express his Ave-Beliefs (through second-order judgment) by re-instantiating his originally pre-existing Meta-Ave-Beliefs. This re-instantiation process is what Haukioja describes as the second-order judgment process. Haukioja and other TE supporters must take on the responsibility of explaining how these beliefs relate to the properties of future events/practices. However, as we mentioned before, this is a big challenge.

**5. Conclusion**

This article poses a new challenge to TE. The main point is that TE implicitly presupposes a type of meta-belief, which I refer to as Meta-Ave-Beliefs. These meta-beliefs have to include properties of future events/practices and are crucial for TE. However, there are significant challenges in explaining how these meta-beliefs incorporate properties of future events/practices. Jussi Haukioja’s recent defense of TE still fails to address the challenges posed by the meta-beliefs. Since TE heavily depends on meta-beliefs, TE is untenable. At the very least, the defense of TE through the Druid-like Case is ineffective.

**Reference**

Burge, T. 1979. Individualism and the Mental. In *Midwest Studies in Philosophy IV: Studies in Metaphysics*, edited by French, Uehling and Wettstein, 73–121. Minneapolis: University of Minnesota Press.

Brown, J. 2000. Against Temporal Externalism. *Analysis*, 60(2): 178–188.

Ebbs, G. 2000. The Very Idea of Sameness of Extension Across Time. *American Philosophical Quarterly,* *37* (3): 245–268.

Haukioja, J. 2020. Semantic Burden-shifting and Temporal Externalism. *Inquiry*, *63* (9–10): 919–929.

Jackman, H. 1999. We Live Forwards but Understand Backwards: Linguistic Practices and Future Behaviour. *Pacific Philosophical Quarterly*, 80: 157–177.

Jackman, H. 2020. Temporal Externalism, Conceptual Continuity, Meaning, and Use. *Inquiry*, *63* (9–10): 959–973.

Kripke, S. 1980. *Naming and Necessity*. Cambridge: Harvard University Press.

Putnam, H. 1975. “The Meaning of ‘Meaning’.” In *Mind, Language and Reality: Philosophical Papers*, Volume 2: 215–271. Cambridge: Cambridge University Press.

Reinikainen, J. 2022. Meaning in Time: On Temporal Externalism and Kripkenstein’s Skeptical Challenge. *Synthese*, 200(4): 288.

Stoneham, T. 2003. Temporal Externalism. *Philosophical Papers*, 32(1): 97–107.

Wilson, M. 1982. Predicate Meets Property. *Philosophical Review*, 91(4): 549–589.