

Martin Heidegger's Concept of *Understanding* (*Verstehen*): An Inquiry into Artificial Intelligence

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Abstract

My primary goal in this paper is to demonstrate the inadequacy of Hubert Dreyfus' use of *understanding* (*Verstehen*) for Artificial Intelligence (AI). My complementary goal is to provide a principled account of Martin Heidegger's concept of *understanding* (*Verstehen*). Dreyfus and other verificationists argue that *understanding* (*Verstehen*) is socially purposive action and skillful embodied coping. *Understanding* (*Verstehen*), conceived of in this way, purportedly challenges cognitive models of Artificial Intelligence (AI) that rely on formal rules, 'rational' decision-making, and the explicit representation of knowledge. This account is unsatisfactory for two reasons. First, it maintains an extrinsic, goal-oriented intentionality that is susceptible to the success of Artificial Intelligence (AI). Second, it ignores the systematic and constitutive analysis of self-understanding (*Seinsverständnis*) that is fundamental to Heidegger's ontology. Recent exegetical work replicates these inadequacies and fails to improve discussions on Heidegger's relationship to Artificial Intelligence (AI). To resolve this oversight, I bridge the gap between Heidegger's concept of *understanding* and *disclosedness* (*Erschlossenheit*) (SZ §44 / 256-278). I argue that *understanding* characterizes the pre-theoretical grasp of entities and the pre-ontological structure that initiates the question of self-understanding (*Seinsverständnis*). This result supports Heidegger's phenomenological breakthrough towards a sense of Being (*Sein*) as the ground of intelligibility.

Keywords: Martin Heidegger, Hubert Dreyfus, understanding, know-how, disclosedness, phenomenology

Introduction

The verificationists argue that Heidegger transforms Edmund Husserl's transcendental phenomenology into hermeneutic facticity.¹ Theoretical knowledge housed in representational, conceptual, or propositional terms are symptomatic pervasions of Cartesianism dominating Western philosophy. Husserl's phenomenology shares the same theoretical distortions as Descartes and is criticized for its similar inattention to the being of consciousness.² Heidegger seeks to renounce the tradition of theoretical knowledge whereby self-awareness and the primacy of consciousness are privileged over concrete and historically embedded understanding.³ Heidegger's project, then, advances an a-theoretical, non-objectifying, and non-reflective form of practical *understanding*.⁴ In this context, *understanding* is 'knowing how' to be skillful in a social *milieu*.⁵ Dreyfus uses Heidegger's critique of theoretical subjectivity to differentiate skillful acting (knowledge-how) from theoretical or conceptual thinking (knowledge-that). As such, *understanding* and *know-how* are synonymously conceived to critique 'rational' assumptions in AI research.⁶

¹ This group of commenters is typically referred to as the Anglo-American Pragmatists. I use the term "verificationists" to broaden the scope of my critique to include commentators who maintain an outcome-based or goal-oriented criterion for knowledge. To name a few, see, Charles Guignon, *Heidegger and the Problem of Knowledge* (Indiana: Hackett, 1983). Carl Friedrich Gethmann, "Zu Heideggers Wahrheitsbegriff," *Kant-Studien* 65, no. 2 (1974): 186-200. Friedrich-Wilhelm Von Herrmann, *Hermeneutics and Reflection: Heidegger and Husserl on the Concept of Phenomenology*, trans. Kenneth Maly (Toronto: University of Toronto Press, 2013). Graham Harman, *Tool-Being: Heidegger and the Metaphysics of Objects* (Illinois: Open Court, 2011). Hans-Georg Gadamer, *Truth and Method*, trans. Joel Weinsheimer, Donald G. Marshall (London: Continuum, 2004). Hubert L Dreyfus, *Being-in-the-world: A Commentary on Heidegger's Being and Time, Division I* (California: MIT Press, 1990). Hubert L. Dreyfus, *Skillful Coping: Essays on the Phenomenology of Everyday Perception and Action*, ed. Mark Wrathall (New York: Oxford University Press, 2014). Mark A. Wrathall, *Heidegger and Unconcealment: Truth, Language, and History* (New York: Cambridge University Press, 2010). Mark Okrent, *Heidegger's Pragmatism: Understanding, Being, and the Critique of Metaphysics* (New York: Cornell University Press, 2019). Richard Rorty, *Essays on Heidegger and Others: Philosophical Papers Vol. 2* (New York: Cambridge University Press, 1991).

² Theodore Kisiel, *The Genesis of Heidegger's Being and Time* (California: University of California Press, 1995), 280. See, GA 17: 254.

³ Sean McGrath, "The Early Heidegger's Critique of Husserl," in *From Between Description and Interpretation: The Hermeneutic Turn in Phenomenology*, ed. Andrzej Wiercinski (Toronto: The Hermeneutic Press, 2005), 269.

⁴ Kisiel, *The Genesis of Heidegger's Being and Time*, 47, 376.

⁵ Gadamer, *Truth and Method*, 20.

⁶ These include biological, psychological, epistemological, and ontological assumptions. Each are given a respective chapter in Hubert Dreyfus, *What Computers Still Can't Do: A Critique of Artificial Reason* (California: MIT press, 1992).

There are *prima facie* similarities between Heidegger's ontology and pragmatism. Hermeneutic or practical understanding, however, is not the final level of Heidegger's analysis. Heidegger cautions against fore-closing phenomenology as theoretical or practical (GA 21: 11).⁷ Heidegger states that the objective determinations of life, motivated by practical understanding, cannot achieve existential meaning, or what he calls "care" (*Sorge*) (SZ: 191f, 249f, 284, 316, 328, 350; GA 21: 11). These claims are first announced in the *Frühe Freiburger Vorlesungen*, 1919–1923, where Heidegger, following Heinrich Rickert, critiques *Lebensphilosophie* (GA 61: 119, 121). Heidegger claims that an a-theoretical "preconception toward grasping" life never leads to the proper sense of "caring and its categorial determinations" (GA 61: 100).⁸ To interpret the world in a way that "goes along with" a predetermined ordering of things is insufficiently radical, and those who do so are "too ready to accept traditional determinations" (GA 60: 134).⁹

In the first section of this paper, I introduce the verificationist account of *understanding*. In the second section, I present a two-pronged critique of Dreyfus' account of *understanding*. First, I argue that Dreyfus' account is unsatisfactory given

⁷ *Logic: The Question of Truth*, trans. Thomas Sheehan (Bloomington: Indiana University Press, 2010), 11. Let me at once introduce the other works of Martin Heidegger to which reference will be made in the present article. Martin Heidegger, *Being and Time*, trans. John Macquarrie, Edward Robinson (New York: Harper & Row, 1962); *Sein und Zeit* in *Gesamtausgabe*, vol. 2, ed. F. W. von Hermann (Frankfurt am Main: Klostermann, 1977). References to this text will be made using the abbreviation "SZ" followed by the paragraph number. On occasion, references are made to the section number, indicated by a pilcrow (§). The *Gesamtausgabe* is cited hereafter as GA followed by the volume number; all volumes of the GA are published by Klostermann in Frankfurt am Main. Page references are from the English translations. (GA 17): *Introduction to Phenomenological Research*, trans. Daniel O. Dahlstrom (Bloomington, Indiana University Press, 2005). (GA 19): *Plato's Sophist*, trans. Richard Rojcewicz, André Schuwer (Bloomington: Indiana University Press, 1997). (GA 29/30): *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, trans. William McNeill, Nicholas Walker (Bloomington: Indiana University Press, 1995). (GA 56/57): *Towards the Definition of Philosophy*, trans. Ted Sadler (London: Bloomsbury Athlon, 2000). (GA 58): *Basic Problems of Phenomenology: Winter Semester 1919/20*, trans. Scott M. Campbell (London: Bloomsbury, 2013). (GA 59): *Phenomenology of Intuition and Expression*, trans. Tracy Colony (London: Bloomsbury Continuum, 2010). (GA 60): *Phenomenology of Religious Life*, trans. Matthias Fritsch, Jennifer Anna Gosetti-Ferencei (Bloomington: Indiana University Press, 2004). (GA 61): *Phenomenological Interpretations of Aristotle: Initiation into Phenomenological Research*, trans. Richard Rojcewicz (Bloomington: Indiana University Press, 2001).

⁸ In *The Heidegger Dictionary*, Dahlstrom notes that existentials are categories of Dasein's Being that make up its existentiality. See, SZ: 12f, 42f, 53, 183ff, 201, 212, 232f, 260, 298, 302f, 304. *Disposedness*, *Understanding*, *Discourse*, *Fallenness* are Dasein's "most general structures" (SZ: 270, also, see SZ, 134, 143, 148, 150, 160, 336). *Existence*, *Facticity* and *Fallenness* are existential determinations that make up the fundamental ontological character of care (SZ: 191f, 249f, 284, 316, 328, 350). *Fallenness* is an existential mode of being-in-the-world (SZ: 176). *Truth* is a fundamental existential (SZ: 297). Heidegger states that from categorial interpretation we will acquire an exposition of the basic sense from which all *existentialia* take proper and referential sense.

⁹ Daniel O. Dahlstrom, *Heidegger's Concept of Truth* (New York: Cambridge University Press, 2001), 199.

recent and foreseeable developments in AI.¹⁰ I support this critique by asserting that Dreyfus' account maintains a goal-oriented intentionality that is vulnerable to the success of AI. Second, I argue that Dreyfus' account, along with other verificationist approaches, is deflationary and fails to capture the fundamental insight of Heidegger's ontology.¹¹ In my concluding remarks, I briefly suggest the conditions that AI must satisfy to replicate a Heideggerian account of human existence.

Heidegger's Verificationism

Heidegger argues that pre-theoretical 'lived experience' is an unavoidable moment in the emergence of meaning, and "life experience is more than, [*pace* Husserl], the mere experience which takes 'cognizance of'" (GA 60: 8). Experience designates the "active and passive pose of the human being toward the world" (GA 60: 8). As such, pre-theoretical life stems from the surrounding 'environing' world and brings the pre-theoretical familiarity that grants access points to meaning. Even the most trivial experiences in our everyday lives provide the pre-theoretical context of meaning. To illustrate this point, Heidegger describes what happens when we encounter the lectern standing in the classroom. In one stroke, the lectern is given to the professor, the students, and any observers (familiar or unfamiliar with lecterns) right away 'as something.' Accompanying the lectern is a complex relation of associated objects and

¹⁰ Mark Wrathall argues that Dreyfus tends to attribute his insights to other philosophers (esp. Heidegger and Maurice Merleau-Ponty). In the first part of section two, my critique of Dreyfus stands irrespective of whether his account is attributed to Heidegger.

¹¹ It is worth noting that the verificationism latent in the pragmatist reading is also an attempt to reconcile Ernst Tugendhat's long-standing critique of Heidegger's concept of truth. In §44 of *Being and Time*, Heidegger characterizes the phenomena of *disclosedness*, *uncovering* (*Entdeckenheit*), or *ἀλθθεια* as the preconditions for propositional truth. Tugendhat argues that these preconditions lack bivalence, and therefore cannot be deemed truth. The pragmatists forgo the core of the existential analysis of truth as disclosedness in exchange for 'background social practices.' The success or failure of background coping (e.g., equipment uses, appropriate normative behavior, and so on) is publicly verifiable and satisfies Tugendhat's conditions of bivalence. Dahlstrom notes that if the pragmatic interpretation succeeds, and if the interpretation is valid, then one would have a reason to reject Tugendhat's objections. A more detailed consideration of this debate lies beyond the present study. See, Ernst Tugendhat, *Über den Wahrheitsbegriff bei Husserl und Heidegger* (Berlin: Veröffentlicht von de Gruyter; Reprint 2012 ed. edition, 1967), 259f. Ernst Tugendhat, "Heidegger's Idea of Truth (1964)" in *The Heidegger Controversy: A Critical Reader*, ed. Richard Wolin (Cambridge: The MIT Press, 1993), 245-263. William H. Smith, "Why Tugendhat's Critique of Heidegger's Concept of Truth Remains a Critical Problem," *Inquiry* 50, no. 2 (2007): 156-179. For a critical response, see, Carl F. Gethmann, "Zu Heideggers Wahrheitsbegriff," *Kant-Studien* 65, no. 2 (1974): 186-200. Jens Greve, "Heideggers Wahrheitskonzeption in Sein und Zeit, Die Interpretationen von Ernst Tugendhat und Carl Friedrich Gethmann," *Zeitschrift für philosophische Forschung*, H. 2 (2000): 256-273.

ideas understood and preserved through individuated lived experiences.¹² Heidegger states that “everything that is experienced in factual life experience, as well as all of its content, bears the character of significance” (GA 60: 9). Immediate significance indicates that the lived experience does not entail universality or absoluteness concerning objects. The worldly character of life guides a ‘primordial anticipation’ and ‘mobility of life’ that precludes ‘freeze-framing’ states of affairs. Through the contextualized lived experience of both selfhood and objects, human beings develop an understanding of both entities, which, in turn, serves as the basis for constructing phenomenological concepts and linguistic content about them.

Influenced by Heidegger’s critical analysis of Husserl’s theoretical subjectivity, the verificationists argue that human beings are not individual, agential, and rational.¹³ On the contrary, human beings are embedded, embodied, and absorbed in their environment. The verificationists rely predominantly on the hermeneutical “*as*-structure” in *Being and Time* to substantiate their interpretation (SZ: 140-160).¹⁴ The “*as*-structure” is the pre-theoretical understanding of objects that give shape and context to our interpretation of the world. When we see an object, we already understand it *as* something it is because of its context and use (GA 21: 144). Heidegger states that when we “‘know our way around’ [*Umgang*] the world, every act of having something before our eyes . . . is in and of itself a matter of ‘having’ something *as* something” (GA 21: 144). Accordingly, the three-fold structure of the hermeneutical *as*-structure consists of the following distinctions. First, our pre-linguistic practical understanding of objects (e.g., understanding the chalkboard *as* something for writing on or a hammer *as* a tool for driving nails). Second, the use of interpretative assertions to express difficulty or the inability to cope with equipment (e.g., “this hammer is not the right tool for the job”) (SZ: 155; GA21: 157). Third, the use of theoretical assertions to express a particular determination of an object *as* something occurrent (e.g., “the hammer is heavy”) (SZ: 155). Contrary to the empiricist perspective, seeing something transcends mere observation of its physical qualities. Objects are revealed

¹² Jonathan O’Rourke furthers the epistemological claim that that “the objects [in] my environment are disclosed according to the sorts of normative roles I take part in, as a student, as a brother, as a friend, etc. Even those objects of which I am unfamiliar, precisely through their instrumental strangeness, are given to me in the relief of this same meaning context.” Jonathan O’Rourke, “Heidegger on Expression: Formal Indication and Destruction in the Early Freiburg Lectures,” *Journal of the British Society for Phenomenology*, (2018): 49: 2, 11 <https://doi.org/10.1080/00071773.2018.1431133>.

¹³ See, Edmund Husserl, *Ideas for a Pure Phenomenology and Phenomenological Philosophy: First Book: General Introduction to Pure Phenomenology*, trans. Daniel Dahlstrom (Indianapolis: Hackett, 2014), §46f, 103f, 141f. For a critical response, which some say Heidegger appropriates, see, Paul Natorp, *Allgemeine Psychologie* (Tübingen: J.C.B. Mohr, 1912), 8, 28-9, 3.

¹⁴ Several exegetical accounts can be found on Heidegger’s “*as*-structure.” Relevant for the present study, see, C.F. Gethmann, *Verstehen und Auslegung: das Methodenproblem in der Philosophie Martin Heidegger* (Bonn: Bouvier Verlag, 1974). Mark A. Wrathall, ed. *The Cambridge Heidegger Lexicon* (New York: Cambridge University Press, 2021), 64f. Dreyfus, *Being-in-the-world*, 60f, 184f. Dahlstrom, *Heidegger’s Concept of Truth*, 181, 305.

within a network of relations through their serviceability, signifying what they are intended for. For the verificationists, perceptual experience is ingrained in pragmatic and social contexts, imbuing worldly objects with practical significance that compels us to act upon them in pre-predicative ways.

The hermeneutic “*as*-structure” underscores the way we encounter the world. Lucilla Guidi suggests that “the *as*-structure is a constitutive feature of every experience of entities in the world—namely, the way they always present themselves in terms of a ‘for something.’”¹⁵ Therefore, the basis of conceptual judgment relies on skillful practices as the ‘pre-theoretical’ and ‘original’ ways of interacting with objects. In other words, conceptual understanding and propositional content are derivative of ‘know-how.’¹⁶ Martin Weichold quotes *Being and Time* to substantiate this interpretation: “Understanding . . . is not a knowledge derived from cognition, but a primordially existential kind of being which first makes knowledge and cognition possible” (SZ: 123f). Weichold interprets Heidegger as suggesting that this respective understanding is an ability (SZ: 143).¹⁷ Just as a neuroscientist “reads” the pictures of a brain scan and provides a diagnosis, human beings “read” the world to deal with their environment.¹⁸ For the verificationists, Heidegger’s fundamental insight is that knowledge is practical understanding derived from absorbed intentionality prior to

¹⁵ Lucilla Guidi, “As-Structure (*Als-Struktur*),” in *The Cambridge Heidegger Lexicon*, ed. Mark A. Wrathall (Cambridge: Cambridge University Press, 2021), 64.

¹⁶ See, Hubert Dreyfus, “Overcoming the Myth of the Mental: How Philosophers can Profit from the Phenomenology of Everyday Expertise,” in *Proceedings and Addresses of the American Philosophical Association* 79, no. 2 (2005): 47-65. Hubert Dreyfus and Stuart Dreyfus, *Mind over Machine*. (New York: Simon and Schuster, 2000). Both readings draw predominantly on Heidegger’s concepts of *understanding* (*Verstehen*), *interpretation* (*Auslegung*), and *circumspection* (*Umsicht*).

¹⁷ The full quote reveals that Heidegger is not making claims about ontic knowledge but disclosedness and the problem of other minds. Quoted in full, Heidegger states: “The disclosedness of the Dasein-with of Others means that because Dasein’s Being is Being-with, its understanding of Being already implies the understanding of Others. This understanding, like any understanding, is not an acquaintance derived from knowledge about them, but a primordially existential kind of Being, which, more than anything else, makes such knowledge and acquaintance possible” (SZ: 123). Of greater importance, Heidegger states: “When we are talking ontically we sometimes use the expression ‘understanding something’ with the signification of ‘being able to manage something,’ ‘being a match for it,’ ‘being competent to do something’” (SZ 143). This quote showcases Heidegger’s method of formal indication. Long overlooked as a tangential method in *Being and Time*, formal indication utilizes conventional and commonplace meanings of words to introduce figurative interpretations that ultimately reveal existential implications. As provisional indicators, Heidegger uses these terms to establish genuine connections that ordinary words merely signify. In the process, the inadequacy of the initial use of a term is exposed, and the underlying existential content that it implicitly presupposes is brought to light. By failing to see that the term *Understanding* is formally indicative, Weichold’s analysis is misleading and remains at the level of conventional use.

¹⁸ Dreyfus and Dreyfus, *Mind over Machine*, 16f, 101f.

representational intentionality.¹⁹ Consequentially, intelligent behaviour cannot be measured by deliberately thinking about 'facts' and 'properties' of consciousness.²⁰ Intelligent behavior is characterized by a pre-conceptual practical understanding that non-deliberatively and non-consciously provides information about the world. As such, the world of objects is not constituted by our subjective consciousness. Dreyfus states that "when actions involve any experience at all, it is not an experience of oneself as *causing* one's activity, but rather of a direct responsiveness to the environment whereby one's activity is completely geared into the demands of the situation."²¹ Dreyfus claims that "mindedness" is "the enemy of coping" because "we are not minds at all, but one with the world."²²

The verificationists see the hermeneutical "*as*-structure" or "background practices" as the ontological significance of language. Heidegger's analysis of lived experience is the pre-linguistic or non-conceptual practical basis for our linguistic activity.²³ Heidegger is credited with avoiding the problematic conditions of correspondence theories of truth by dissolving theoretical constitutive subjectivity.²⁴ Following this line of thought, Carl F. Gethmann argues that Heidegger replaces the traditional correspondence model of truth with an "operational model."²⁵ Accordingly, the "success" and "serviceability" of the action fulfill the conditions of truth "even if it is not asserted at all."²⁶ Gethmann argues that the "representation of an action, in a sentence, is the meaning of agreement in a propositional model of truth . . . An underlying operational truth relates to a proposition like a key to a lock."²⁷

¹⁹ See, Hubert Dreyfus, "The Socratic and Platonic Basis of Cognitivism," *AI and Society* 2, no. 2 (1988): 99-112. Hubert Dreyfus, *What Computers Still Can't Do: A Critique of Artificial Reason* (Cambridge: Cambridge University Press, 1992).

²⁰ Dreyfus, *Being-in-the-World*, 62, 81-2, 84.

²¹ Dreyfus attributes these views to Heidegger, suggesting that "Heidegger, indeed, claims that skillful coping is basic, but he is also clear that, all coping takes place on the background coping he calls "being-in-the world" which doesn't involve any form of representation at all." Hubert Dreyfus, "Why Heideggerian AI failed and how fixing it would require making it more Heideggerian," *Philosophical psychology* 20, no. 2 (2007): 254.

²² Dreyfus, "The Return of the Myth of the Mental," *Inquiry* 50, no. 4 (2007): 353.

²³ See page 59, Paul Livingston, "The Ontology of Sense and "Transcendental" Truth: Heidegger and Davidson" in *The Logic of Being: Realism, Truth, and Time* (Illinois: Northwestern University Press, 2017), 59-95. The meta-grammatically truth structure is often referred to as "circumspective unconcealment." Extensive treatment is given throughout the following: Graham Harman, *Tool-Being: Heidegger and the Metaphysics of Objects* (Illinois: Open Court, 2011). Lee Braver, *Groundless Grounds: A Study of Wittgenstein and Heidegger* (Cambridge: MIT Press, 2012). Like Dreyfus, these readings draw predominantly on Heidegger's *Understanding (Verstehen)*, *Interpretation (Auslegung)*, and *Circumspection (Umsicht)*.

²⁴ Wrathall, *Heidegger and Unconcealment*, 47.

²⁵ Gethmann, "Zu Heideggers Wahrheitsbegriff," 198. Translation mine

²⁶ Gethmann, "Zu Heideggers Wahrheitsbegriff," 198. Translation mine

²⁷ Gethmann, "Zu Heideggers Wahrheitsbegriff," 198. Translation mine

Gethmann contends that the meaning of agreement in a propositional model of truth (i.e., truth as correspondence) is rooted in the representation of an action within a sentence. Accordingly, an underlying operational truth functions like a key, unlocking the meaning of a proposition. For Gethmann, “whether the key ‘agrees’ with the lock, shows itself in locking or unlocking the door, hence in its use, and not in talking about it.”²⁸ As such, Heidegger’s operational model challenges traditional conceptions that fulfil their truth criteria by relying on acts of consciousness and propositional content.

Mark Okrent, like Gethmann, argues that Heidegger’s operational conception of truth modifies Husserl’s conception of truth (i.e., a modification of *adequatio intellectus et rei*).²⁹ In the Husserlian sense, truth is an intentional act that ‘adequately’ reflects the intuited object given to consciousness. In Heidegger’s modification, the intended meaning or proposition ‘adequately’ verifies an operational truth, and intuition takes the form of a reactive ability in a purposive action.³⁰ Put simply, truth as an intention is filled by an intuitive action. Okrent maintains that for Heidegger, “the fundamental notion of evidence [is] tied to how purposeful practical activity [is] recognizable as successful or unsuccessful if the activity is to count as purposeful at all.”³¹ The “communally purposive situation of language use” determines the conditions for truth and *understanding*.³²

True assertions and propositional knowledge depend on practical activity to achieve a practical goal. Consequentially, Dasein, Being-in-the-world, Being-with, and Being-in are complex meta-grammatical structures shown or evidenced in the complicated interrelationships of practice, worldly engagement, and comportment. From the analysis of these structures, the meta-grammatical logic of propositions not only plays the role of inference or theoretical deduction but, as Donald Davidson emphasizes, is also essential and indispensable in characterizing the “meaning” of objects and their involvement in intersubjective practices.³³ In the verificationist account, propositional truth relies on something perceivable, and the fulfilment of

²⁸ Gethmann, “Zu Heideggers Wahrheitsbegriff,” 198. Translation mine

²⁹ Edmund Husserl, “The Ideal of Adequation. Self-Evidence and Truth,” in *Logical Investigations Vol. II*, trans. Dermot Moran (New York: Routledge, 2001), 259-267.

³⁰ Richard Rorty endorses Mark Okrent’s view. See, Rorty, *Essays on Heidegger and Others*, 32f.

³¹ Okrent, *Heidegger’s Pragmatism*, 128.

³² Okrent, *Heidegger’s Pragmatism*, 128.

³³ Livingston, *The Logic of Being*, 60f. For this reason, recent literature makes a comparative effort to show the similarities between Heidegger and Donald Davidson. Part of the standard interpretation of the conceptual relationship between these two thinkers involves the similarities between the non-propositional Heideggerian *understanding* and the ‘primitive triangulation’ advanced by Davidson. Davidson’s primitive interpretation involves purposive activity governed by social normativity; this is said to be analogous to the social normativity purported in Heidegger’s *understanding*. Both thinkers are said to maintain a notion of non-linguistic understanding that is a fundamental and pre-conceptual form of meaning shaped by social interactions.

intuition is only possible if the referent is on hand.³⁴ This reading, however, as I argue in section three, flattens the disclosive facticity (*Faktizität*) of existence to a social matter-of-factness (*Tatsächlichkeit*), an occurrence within the static and social world (SZ: 55f).³⁵ The verificationists foreclose the pursuit of meaning to anything other than the success of a socially predicated action. I elaborate on this claim later.

Understanding and AI

From a verificationist reading of Heidegger, Dreyfus advances three central arguments to differentiate human intelligence from artificial intelligence.³⁶ First, human beings respond to relevant features in their environment without relying on a mental representation of facts.³⁷ Second, skilled action is not a psychologically mediated causal chain of input-to-output responses.³⁸ Third, human intelligence consists of direct and self-forgetful responsiveness through embodied capacities.³⁹ Correspondingly, Dreyfus argues that AI research neglects two interrelated problems. First, AI cannot organize the 'worldly situation' so that objects are accessible and relevant outside of a predetermined set of facts.⁴⁰ In turn, AI neglects the 'worldly situation' in providing a background for embodied coping.⁴¹ Second, AI cannot account for the non-psychological way in which human intelligence experiences the world.⁴²

³⁴ Heidegger renounces this, arguing that by prioritizing objects and properties of objects, the Neo-Kantians and Marburg school mistreat the relation to how objects are "originally given." Heidegger stresses that the inquiry into "sensible entities" does not characterize Being (*Sein*) but only determines the way of apprehending being (GA59: 53). Heidegger identifies the tendency to view everything as either itself an object or a property of an object. By focusing on ontic issues and overlooking the ontological issue, philosophy inherits a conception of being as "to be" "occurrent" (*vorhanden*).

³⁵ See, Dahlstrom, *Heidegger's Concept of Truth*, 227. The temporal consequences are beyond the scope of the present study.

³⁶ I will not provide an exhaustive exegetical account of each of these claims. Instead, my focus will be on how his views culminate in what Dreyfus claims is the rationalist assumption.

³⁷ Hubert Dreyfus, Stuart E. Dreyfus, "What artificial Experts Can and Cannot Do," *AI & society* 6 (1992): 18.

³⁸ Dreyfus, *What Computers Still Can't Do*, 163-188.

³⁹ Dreyfus also advances that embodied coping has motor-intentional content and that it makes the intentional arc possible. For a more detailed description, see, once again, Hubert Dreyfus, "Why Heideggerian AI failed and how fixing it would require making it more Heideggerian," *Philosophical psychology* 20, no. 2 (2007): 247-268.

⁴⁰ Dreyfus, *What Computers Still Can't Do*, 246f.

⁴¹ The ontological assumption. Dreyfus, *What computers Still Can't Do*, 287f.

⁴² Dreyfus notes that when learning to drive, dance, or pronounce a foreign language, we must slowly, awkwardly, and consciously follow the rules. But then there comes a moment when we can finally perform automatically. At this point, we do not seem to be simply dropping these same rigid rules into unconsciousness; rather, we seem to have picked up the muscular *gestalt*, which gives our behavior new flexibility and smoothness. The same holds for acquiring the skill of perception. *What*

The mainstay of Dreyfus' argument is that AI research programs falsify their enterprise by basing intelligence on a 'rationalist' assumption. Dreyfus claims:

A machine can, at best, make a specific set of hypotheses and then find out if they have been confirmed or refuted by the data. [Human beings] constantly modify [our] expectations in terms of a more flexible criterion: as embodied, we need not check for specific characteristics or a specific range of characteristics, but simply for whether, on the basis of our expectations, we are coping with the object. Coping need not be defined by any specific set of traits but rather by an ongoing mastery . . . [a] maximum grasp. What counts as maximum grasp varies with the goal and the resources of the situation. Thus, it cannot be expressed in situation-free, purpose free terms.⁴³

AI and the human mind are understood by AI researchers as physical symbol systems using streams of neuron pulses as symbols representing the external world. Consequentially, human intelligence is considered rational (psychological/mentalistic) and factually deduced. The rationalist assumption reinforces the idea that in an orderly domain, there are sets of context-free elements and abstract relations among those elements, that underlie human intelligence.⁴⁴ The assumption, therefore, is that knowledge consists in forming and using appropriate symbolic representations.⁴⁵ The human mind, however, does not function exclusively on the psychological capacity to form representations, theories, or propositions about states of affairs. Objects are only understood de-contextually when we stop acting skillfully and approach the world conceptually. Therefore, AI cannot account for the dynamic, context-bound engagement with the world. To illustrate this point, Dreyfus argues that humans recognize patterns even when they are incomplete or distorted. Unlike AI, humans simultaneously acknowledge that a pattern is present while perceiving a discontinuity in the expected pattern. Human pattern recognition, so Dreyfus claims, is influenced by contextual information or background knowledge that fills in missing elements to make inferences. AI pattern recognition operates within strict adherence to predetermined algorithms or models; therefore, it lacks the adaptability to accommodate incompleteness or distortion. Additionally, AI pattern recognition necessitates testing and subsequent exclusion when confronted with background noise while humans effortlessly disregard irrelevant details in states of affairs. In short, AI successfully performs in a completely defined system like chess, where a finite number

Computer's Still Can't Do, 249. Also, see, "The Biological Assumption," in *What Computers Still Can't Do*, 159-162.

⁴³ Hubert Dreyfus, "Why Computers Must Have Bodies in Order to Be Intelligent," *The Review of Metaphysics* 21, no. 1 (1967): 20-1.

⁴⁴ Hubert Dreyfus, and Stuart E. Dreyfus, "Making a Mind versus Modeling the Brain: Artificial Intelligence Back at a Branchpoint," *Daedalus* 117, no. 1 (1988): 25.

⁴⁵ Dreyfus, *What Computers Still Can't Do*, XI.

of concepts determines totally and unequivocally the set of all combinations in the domain.⁴⁶

Non-psychological know-how grounds our everyday ability to navigate the world and engage with objects. Know-how is non-axiomatic, and even experts have difficulty identifying what they are doing when performing a task at an elite level. For Dreyfus, the brain processes information “from trial-and-error . . . triggered by involvement in real situations . . . [and] cannot be described at any domain-theory level of abstraction.”⁴⁷ Experts, or professional athletes, so Dreyfus claims, will not deliberate with “detached problem solving, even when time permits.”⁴⁸ Experts are more likely to “deliberate about the relevance of their prior experience . . . or overlooked alternative perspectives” rather than “the rules and principles underlying their skill” in general.⁴⁹ In doing so, experts “embody a richly articulated way of dealing with objects in the world without the use of predicate language.”⁵⁰ For example, playing basketball or riding a bicycle encompasses proficiency and aptitude that skilful copers cannot easily formalize in propositions. Linguistic utterances express the successful performance of a task, but they do not disclose the underlying cognitive processes or mental mechanisms involved during its execution. The competence of an elite basketball player has a form of knowledge that is distinct from, and perhaps irreducible to, formalized propositional knowledge. Dreyfus deems this species of know-how as “tacit knowledge.”⁵¹ As Timothy Nulty puts it, tacit knowledge is “non-mentalistic; it is a primitive or basic form of intentionality that grounds the possibility of linguistic meaning.”⁵² AI systems primarily operate based on explicit rules in the form of programmable language; they lack the ability to effectively utilize tacit knowledge. AI programmers cannot replicate the non-mentalistic way humans act.

In short, I outlined two aspects of the rationalist assumption. First, AI programmers assume that intelligence cognizes a determinate set of data to make inferences. AI cannot account for the “real world,” where the list of relevant facts, or even classes of possibly relevant facts are indefinitely large.⁵³ Second, AI programmers make the assumption that all non-arbitrary behavior is formalizable according to rules, and these rules can then be used by a computer to reproduce human behavior.

⁴⁶ Dreyfus, *What Computers Still Can't Do*, 177.

⁴⁷ Dreyfus and Dreyfus, “What Artificial Experts Can and Cannot Do,” 22.

⁴⁸ Dreyfus and Dreyfus, “What Artificial Experts Can and Cannot Do,” 22.

⁴⁹ Dreyfus and Dreyfus, “What Artificial Experts Can and Cannot Do,” 22.

⁵⁰ Mark Wrathall, “The conditions of truth in Heidegger and Davidson.” *The Monist* 82, no. 2 (1999): 304-323.

⁵¹ Dreyfus, “Overcoming the Myth of the Mental,” 52f. Also see, Jerry Fodor, “The Appeal to Tacit Knowledge in Psychological Explanation,” *The Journal of Philosophy* 65, no. 20 (1968): 627-640.

⁵² Timothy J. Nulty, “Davidsonian triangulation and Heideggerian comportment.” *International journal of philosophical studies* 14, no. 3 (2006): 443-453. Also see, John Haugeland, *Artificial intelligence: The Very Idea*. (Cambridge: MIT press, 1989).

⁵³ Dreyfus, “Overcoming the Myth of the Mental,” 65.

Critical Evaluation of the Verificationist Reading

While the verificationists point out one aspect of *understanding*, it is difficult to see how this reading is sustained without doing serious violence to Heidegger's project. In their critical oversight, Heidegger's phenomenological breakthrough towards a sense of self-understanding (*Seinsverständnis*) in a principled account of Being (*Sein*) is absent.⁵⁴ In other words, the verificationists remain on the level of everyday *understanding* and disregard the existential implications of self-understanding.

In this section, I present a two-pronged critique of Dreyfus' account. First, I argue that Dreyfus' account is inadequate given recent developments in AI. AI has surpassed Dreyfus' expectations, rendering many of his examples outdated. However, the primary error lies in his verificationist or outcome-based criteria for knowledge. The underlying presupposition in Dreyfus' account is that knowledge relies on the *success* of our practical engagements. While some of Dreyfus' examples withstand the test of time, the developments of AI will surpass these exceptions because AI developers, like Dreyfus, rely on an outcome-based criterion as their measure of success. Second, I argue that Dreyfus' account is an incomplete reading of Heidegger's concept of *understanding*. By drawing on a complete and principled account of *understanding*, I attempt to circumvent the outcome-based criteria.

The Limits of Dreyfus' Argument for Recent AI Development

Dreyfus' central claim is that human intelligence relies on embodied and contextually sensitive know-how. For Dreyfus, AI systems cannot incorporate and understand subtle contextual elements in their environment.⁵⁵ Without the background knowledge accumulated through experience, AI systems have a limited capacity to comprehend and respond appropriately to dynamic situations.⁵⁶ However, consider DeepMind's AlphaGo. AlphaGo is an AI program developed to play the board game Go, which is known for its complexity and strategic depth.⁵⁷ In 2016, AlphaGo defeated the world champion Go player and "introduced innovative and valuable strategies to the Go community."⁵⁸ With the ability to master the complexity of Go, "AlphaGo fulfils the

⁵⁴ Dahlstrom, *Heidegger's Concept of Truth*, XIX.

⁵⁵ For Dreyfus, the environment is not exclusive to a physical environment. He extends the term to include domains of relevance.

⁵⁶ Dreyfus, "Overcoming the Myth of the Mental," 65.

⁵⁷ Go is far more complex than Chess. For example, in chess there are 20 possible moves. In Go, the first player has 361 possible moves.

⁵⁸ Marta Halina, "Insightful artificial intelligence," *Mind and Language* 36, no. 2 (2021): 316.

criteria for creativity . . . producing novel, and surprising valuable solutions to problems [in the game].”⁵⁹ AlphaGo succeeds using deep neural networks and Monte Carlo tree search algorithms. It uses deep neural networks to evaluate board positions and make strategic decisions, while the Monte Carlo tree search enables the program to explore possible moves and anticipate future outcomes. Using reinforcement learning techniques, AlphaGo improves its performance through self-play while learning from experience. Marta Halina notes that:

The exploration parameter allows AlphaGo to go beyond its training, encouraging it to simulate moves outside of those recommended by the policy network. As the search tree is constructed, the system starts choosing moves with the highest “action value” to simulate, where the action value indicates how good a move is based on the outcome of rollouts and value-network evaluations.⁶⁰

By constructing and employing a “world model” of its environment, AlphaGo learns new moves that exceed its programmed policy. By utilizing reinforcement learning techniques to master the complexity of Go, the program learns how to analyze the game’s strategic dynamics to make optimally reactive and live decisions. As a result, AlphaGo performs at levels that rival or surpass human expertise. Importantly, the AI system is not a formalized knowledge system pre-programmed by expert players to replicate a set of moves from previous matches. On the contrary, it employs Reinforcement Learning (RL) to train itself.⁶¹ Some of AlphaGo’s moves are inexplicable to human Go-playing experts, and yet are effective in winning games.⁶² These new and unpredictable moves display a species of goal-oriented intentionality to win matches similar to human GO players.⁶³

The development of Reinforcement Learning (RL) goes beyond the limitations that Dreyfus imposes on AI.⁶⁴ RL challenges Dreyfus’ claim that the distinctive feature

⁵⁹ Halina, “Insightful Artificial Intelligence,” 316.

⁶⁰ Halina, “Insightful Artificial Intelligence,” 324.

⁶¹ See, Guglielmo Papagni, Koeszegi Sabine, “A Pragmatic Approach to the Intentional Stance Semantic, Empirical and Ethical Considerations for the Design of Artificial Agents,” *Minds and Machines* 31 (2021): 505-534.

⁶² See, Peter Andras, Lukas Esterle, Michael Guckert, et. al, “Trusting Intelligent Machines: Deepening Trust within Socio-technical Systems,” *IEEE Technology and Society Magazine* 37, no. 4 (2018): 76-83.

⁶³ Papagni, and Sabine, “A Pragmatic Approach to the Intentional Stance Semantic, Empirical and Ethical Considerations for the Design of Artificial Agents,” 509

⁶⁴ Similarly, OpenAI’s Dota 2-playing bot is designed to play the popular multiplayer online battle arena (MOBA) game Dota 2. In 2018, OpenAI’s bot named “OpenAI Five” competed and won against several professional players. OpenAI’s Dota 2 bot utilizes deep reinforcement learning techniques to master the complexities of the game and undergoes extensive training by self-play. It competes against different versions of itself to improve its gameplay strategies. The bot learned how

of human intelligence is contextual sensitivity and adaptive ability. RL does not need a predefined class of appropriate responses to generate knowledge that leads to successful gameplay. RL's machine learning discovers how to interact with its environment to maximize a cumulative reward signal. In other instances, Deep Q-networks (DQNs) combine RL with deep neural networks, specifically convolutional neural networks (CNNs), to effectively handle high-dimensional and complex state spaces. DQN is designed so that the agent and environment engage in ongoing interaction. The AI responds to its environment according to its current observation and 'policy.' In return, the agent receives a reward and the next environmental observation. By employing a deep neural network as a function approximator, DQNs learn a Q-value function which estimates the expected cumulative reward for taking a particular action from a given state.⁶⁵ In other words, this learning algorithm aims to optimize the cumulative reward or the return. By doing so, DQNs effectively learn a complex mapping from states to actions and make optimal decisions in complex environments.⁶⁶ Dreyfus' condition for successful coping is a responsiveness to the solicitations of the environment and the approximation of an "optimal *gestalt* for a fluid response to the situation."⁶⁷ The "mind" of these AI systems does not operate on bits of information according to formalized information; rather, the AI systems have practical knowledge about their worlds by considering complex attitudes and tendencies to favour one action over another. In this sense, AI meets Dreyfus' condition for skillful coping.

To anticipate a critical rejoinder, I concede that AI systems have a limited capacity. For example, AI lacks personalization (i.e., having an identity), and sufficient emotional intelligence. In language-based models, AI typically reproduces generic responses that culminate general information. Perhaps the most prevalent limitation of AI lies in the challenge of robotics and dexterity in physical interactions. For Dreyfus, sports are paradigmatic instances of human intelligence. Athletic know-how demonstrates fine-grained motor skills, delicate manipulation of tools, and non-cognitive yet reactive adaptability. Put simply, athletic ability presents difficulties for

to analyze the game's dynamics, strategize, and make optimal decisions in real-time. Both AlphaGo and OpenAI's Dota 2-playing bot demonstrate the significant advancements made in AI and machine learning. These achievements highlight that AI systems can accomplish complex challenges, learn from data, and perform at levels that rival or surpass human expertise in specific domains. Further study is required to determine whether game theory threatens Dreyfus' claims about expertise. See, "Five Steps from Novice to Expert" in *Mind over Machine*, 16-51. For Dreyfus' discussion on Reinforcement learning, See, Dreyfus, introduction to *What Computers Still Can't Do*, IX-LII.

⁶⁵ For an elaborated treatment of Deep Q-networks, See, Patrick Hohenecker, and Thomas Lukasiewicz, "Ontology Reasoning with Deep Neural Networks," *Journal of Artificial Intelligence Research* 68 (2020): 503-540.

⁶⁶ For technical data analysis, See, Xu Chen, and Jun Wang, "Inhomogeneous Deep Q-network for Time Sensitive Applications," *Artificial Intelligence* 312 (2022): 1.

⁶⁷ Hubert Dreyfus, *Skillful Coping*, 11.

current AI-powered robotic systems.⁶⁸ Problematically, however, Dreyfus extends embodied coping beyond athletics to other refined skills. For example, chess, jazz improvisation, cooking dinner, crossing a busy street, carrying on a conversation, or just getting around in the world.⁶⁹ AI-powered robotic systems have limitations in the fluidity of completing some, but not all, of these refined skills.

AI programmers seek to develop AI systems that perform tasks typical of human intelligence. AI machines or software aim to think, reason, learn, perceive, and interact with the world like human beings. Even in the case of AGI, the goal is to create machines that understand, learn, and apply knowledge across multiple, if not all, domains. I argue that AI and AGI enterprises rely on goal-oriented intentionality, evaluating the success of their performance through outcome-driven and efficiency-driven initiatives. Problematically, Dreyfus' account of know-how also measures human intelligence on a success model of performative action.⁷⁰ For this reason, Dreyfus' account is vulnerable to future AI systems that rival or surpass human action or performance. Dreyfus falls victim to Heidegger's warning in the opening paragraph of *Being and Time*. Heidegger states that to ask the correct question is to find the correct path to its achievement (SZ: 1). One must "reawaken an understanding for the meaning of [the] question" because "what is asked about there lies also *that which is to be found out by the asking [das Erfragte]*" (SZ: 2). For Dreyfus, this question is what computers cannot *do*. Dreyfus then measures the success of human intelligence against the performative-*doing* of AI and becomes vulnerable to the development of AI's performance. In the following subsection, I reframe the aim of our inquiry by asking a new question: Can AI take a meaningful relation to action? I also present a complete and principled account of Heidegger's concept of *Understanding*.

Critique of Dreyfus' Flattened Ontology

It is tempting to read Heidegger's concept of *understanding* as practical know-how. Human existence *necessarily* directs our attention to a world of concern, and we cannot *be* in the world without practice. Heidegger does not suggest, however, that our access

⁶⁸ Problematically, Dreyfus lumps all games into one category, whether they are physical or otherwise. Part of my concession is that interactive and autonomous robots are only in the beginning stages of development (i.e., currently, AI cannot play tennis). For a full treatment of embodied coping, see Hubert Dreyfus, "The Primacy of Phenomenology Over Logical Analysis," *Philosophical Topics* 27, no. 2 (1999): 3-24.

⁶⁹ Dreyfus, "Overcoming the Myth of the Mental," 58.

⁷⁰ Regardless of the various reasons and nuances that justify the verificationist reading, I argue that the conclusion is the same. In other words, the definitive feature of skillfully absorbed, pragmatically sensitive, culturally nuanced, and non-regulative, embedded human knowledge is based on a goal-oriented success model.

to practices determines the disclosure of the world or ourselves.⁷¹ *Understanding* in the primordial sense, as self-understanding, does not signify a practice.⁷² In this subsection, I elaborate on this claim.

Following Daniel Dahlstrom, I argue that Dreyfus and other verificationists misconstrue the pre-ontological, ontological, and ontic levels of Heidegger's thought, and the corresponding *existentiell* and existential dimensions of *understanding*.⁷³ In the primordial sense, *understanding* discloses a pre-ontological question concerning the need for self-understanding. Disclosure, in this sense, solicits an ontological inquiry: My existence deserves investigation with ontic-ontological priority over other entities (SZ: 142f, 259f).⁷⁴ In doing so, I investigate ontological meaning alongside the complexity of instruments I concern myself with (SZ: 85f, 143). As a result, the disclosive feature of self-understanding does not satisfy its criteria by making an ontic or practical difference. Heidegger states:

Dasein's ways of behaviour, its capacities, powers, possibilities, and vicissitudes, have been studied with varying extent in philosophical psychology, in anthropology . . . each in a different fashion. But the question remains whether these interpretations of Dasein have been carried through with a primordial existentiality comparable to whatever existentiell primordiality they may have possessed. Neither of these excludes the other but they do not necessarily go together. Existentiell interpretation can demand an existential analytic, if indeed we conceive of philosophical cognition as something possible and necessary. Only when the basic structures of Dasein have been adequately worked out with explicit orientation towards the problem of Being itself, will what we have hitherto gained in interpreting Dasein get its existential justification. *Thus, an analytic of Dasein must remain our first requirement in the question of Being. But in that case the problem of obtaining and securing the kind of access which will lead to Dasein, becomes even more a burning one . . . Once we have arrived at that horizon, this preparatory analytic of Dasein [in Division I] will have to be repeated on a higher and authentically ontological basis* (SZ: 16f, emphasis added).

Understanding, recognized by successful action, amounts to the knowledge proffered by the natural sciences insofar as they both presuppose an understanding of existence

⁷¹ The meaning and validity of Disclosure (*Erschlossenheit*) is, in part, what motivates Tugendhat's critique.

⁷² Daniel Dahlstrom notes that "existential understanding constitutes various forms of "sight" (*Sicht*). The circumspection (*Umsicht*) of our work-world concerns, the considerateness (*Rücksicht*) of our solicitude for one another, and the transparency (*Durchsichtigkeit*) of Dasein's full disclosure of itself as being-in-the-world, along with its opaqueness to itself (*Undurchsichtigkeit*) are familiar, figurative transcriptions of understanding." *The Heidegger Dictionary*, 231.

⁷³ Dahlstrom, *Heidegger's Concept of Truth*, 428.

⁷⁴ Dahlstrom, *The Heidegger Dictionary*, 232.

(GA24: 389f; SZ: 143, 336; GA20: 413). Heidegger suggests that *understanding* in the primordial existential sense is not one type of knowledge contrasted with another (i.e., the humanities in contrast to the natural sciences).⁷⁵ The self-disclosive truth of existence (*Eigentlichkeit*) or the higher ontological basis derived from self-understanding cannot be adequately mapped onto the structure of a practice or a set of practices. That which leads to existential questioning, namely, the call of conscience, is not a material ethic. Heidegger states that:

We miss a 'positive' content in that which is called [by our conscience], *because we expect to be told something currently useful about assured possibilities of 'taking action' which are available and calculable*. This expectation has its basis within the horizon of that way of interpreting which belongs to common-sense concern, a way of interpreting which forces Dasein's existence to be subsumed under the idea of a business procedure that can be regulated. Such expectations (and in part these tacitly underlie even the demand for a *material* ethic of value as contrasted with one that is 'merely' formal) are of course disappointed by the conscience. The call of conscience fails to give any such 'practical' injunctions, *solely because* it summons Dasein to existence, to its ownmost potentiality-for-Being-its-Self (SZ: 294).

Understanding secures the intelligibility (*Verständigkeit*) of entities, while existential self-understanding leads Dasein to the ontological intelligibility of itself (i.e., the self-disclosure of being-in-the-world) (SZ: 13, 85f, 143). Self-disclosure is the condition for the possibility of both forms of *understanding*. By collapsing the a-priori generality of Dasein (existential conditions for understanding, *Seinsverständnis*) into what is practically available, Dreyfus and the verificationists fail to distinguish the ontological difference between human beings and other objects or entities (i.e., ontological from the ontic). For Heidegger, "what understanding as an existential can understand is not a what, but rather being as existing" (SZ: 143). As Dahlstrom notes, distinguishing between the inquiry of ontology and the inquiry of ontic sciences allows us to see the ontological difference between the two.⁷⁶

The verificationists fail to unify the structure of meaning with the basic existential orientation of *Seinsverständnis* and *Eigentlichkeit*. Dreyfus attempts to justify this oversight suggesting that Division I of *Being and Time* is "the most original and important section," and despite the presentation of "more originary [*sic*] temporality" in Division II, it "leads [Heidegger] so far from the phenomenon of everyday temporality" that "satisfactory interpretation of the material cannot be given."⁷⁷ Heidegger states, however, that:

⁷⁵ Dahlstrom, *The Heidegger Dictionary*, 231.

⁷⁶ Dahlstrom, *Heidegger's Concept of Truth*, 305f

⁷⁷ Dreyfus, *Being-in-the-world*, VIII.

Dasein's Being must already be presupposed as a whole when we distinguish between theoretical and practical behaviour [and] cannot first be built up out of these faculties by a dialectic which, because it is existentially ungrounded, is necessarily quite baseless. Resoluteness, however, is only that authenticity [*Eigentlichkeit*] which, in care, is the object of care [*in der Sorge gesorgte*], which is possible as . . . the authenticity of care itself (SZ: 300).

It is precisely the problematic sense of the entity "I am," in the preparatory analytic of Dasein that grounds the ontological basis for a principled account of Being (*Sein*). *Understanding*, construed exclusively as the capacity to cope with the worldly environment presents one aspect of Heidegger's project at the expense of another.⁷⁸ More specifically, this reading neglects the pre-ontological and ontological claims of *Seinsverständnis* and *Eigentlichkeit* that lead to "coming to the self that is most one's own . . . [through] its individualization [*Vereinzelung*]" (SZ 339). The fulfilment of an authentic intuition gains its ontological purchase precisely from the discontinuity of everyday understanding (*Weltanschauung*), and theoretical objectification.

Heidegger uses the term $\pi\rho\alpha\acute{\alpha}\xi\iota\varsigma$ (or "practice") in connection with the phenomenon of care, suggesting:

Care, as a primordial structural totality, lies 'before' ["vor"] every factual 'attitude' and 'situation' of Dasein, and it does so existentially *a priori*; this means that it always lies *in* them. *So this phenomenon by no means expresses a priority of the 'practical' attitude over the theoretical.* When we ascertain something present-at-hand by merely beholding it, this activity has the character of care just as much as does a 'political action' or taking a rest and enjoying oneself. 'Theory' and 'practice' are possibilities of Being for an entity whose Being must be defined as "care." The phenomenon of care in its totality is essentially something that cannot be torn asunder; so any attempts to trace it back to special acts or drives like willing and wishing or urge and addiction, or to construct it out of these, will be unsuccessful (SZ: 193-4).

The existential *a priori* of *understanding* conditions the possibility of engaging with the environment and reflective analysis. *Understanding* allows me to perceive and interpret the world within the confines of lived experience, while self-understanding goes beyond my mere facticity. The self-referential dimension of *understanding* guides the meaning we assign to our actions. Through an extensive treatment of Aristotle's *Nicomachean Ethics*, Heidegger qualifies the self-referentiality of meaning, suggesting that *phronesis*, or practical understanding, depends on a prior disclosure that is higher in rank than itself (GA19, 167). The 'higher rank' is the ontological conception of

⁷⁸ Namely, the fundamental insight that governs the project of *Being and Time*, especially in Division II, is the question of individuated Being (*Sein*).

Being characterized by care. From a thorough examination of Heidegger's texts, *phronesis* is revealed to encompass a relationship with action that is both non-objectifying and mentalistic. A similar sentiment appears in *Being and Time* when Heidegger suggests that:

'Practical' behaviour is not 'atheoretical' in the sense of "sightlessness."⁷⁹ The way it differs from theoretical behaviour does not lie simply in the fact that in theoretical behaviour one observes, while in practical behaviour one *acts* [*gehandelt wird*] . . . for the fact that observation is a kind of concern is just as primordial as the fact that action has *its own* kind of sight. Theoretical behaviour is just looking, without circumspection. But the fact that this looking is non-circumspective does not mean that it follows no rules: it constructs a canon for itself in the form of *method* (SZ: 69).

Dreyfus creates the problematic opposition between theoretical knowledge and practical knowledge. In Dreyfus' account, *understanding* is conceived without intuitive contemplation or self-referentially; these conditions ground a principled account of meaning and Being. The verificationists accept that practical life is non-mentalistic everyday coping, however, it is precisely the everyday *Weltanschauung* in Dreyfus' account that Heidegger deems to be *fallenness* (*Verfallen* or *Verborgenheit*). Commentators often have difficulty accounting for the movement between *Uneigentlichkeit* and *Eigentlichkeit* because *understanding*, conditioned by ontic consequences, never effects the ontological structure of Being.⁸⁰ The change in *Weltanschauung* constitutes a "genuine movedness of life," in which life exists and through which life is determinable in its own sense of Being. This movement makes it intelligible how Being is genuinely brought into appropriate modes of possession (GA 61: 87).

Human existence is always given through disclosedness, making self-acquaintance a pre-theoretical process. Heidegger suggests, however, that reflection is necessary for becoming authentically individualized.

For this reason, reflection focuses on existence, indicating that a "who," in a pre-theoretical manner, necessarily raising questions about its Being and thereby provides the inescapable starting point for philosophical inquiry. Human beings possess a distinct intelligible quality that ontologically sets us apart from other entities.

⁷⁹ "Im Sinne der Sichtlosigkeit." The point of this sentence will be clear to the reader who recalls that the Greek verb from which the words 'theoretical' and 'atheoretical' are derived, originally meant 'to see.' Heidegger is pointing out that this is not what we have in mind in the traditional contrast between the 'theoretical' and the 'practical.'

⁸⁰ A movement which constitutes a *genuine movedness of life*, in which and *through* which life exists, and from which, accordingly, life is determinable in its own sense of Being. This movement makes it intelligible how a being such as life is to be brought genuinely into one of its available, appropriating modes of possession (Problem of facticity). Thereby we will acquire for the categorial interpretation the exposition of the basic sense from which all existentialia interpretively take their own proper sense as well as their referential sense (GA61: 87).

For Heidegger, the question itself is “the point where [existence] *arises* and to which it *returns*.” (GA2: 51, 62). As a formally indicative concept, *understanding* points to “a concretion of individual existence” in the human being, but “it never” conveys that which is in its content already (GA29: 429). Thus, despite factual life experience being world-immersed, we tend to misinterpret ourselves in terms of our worldly being (i.e., historical, social, cultural, physical aspects, and other circumstances or limitations). Self-understanding that initially arises from the hermeneutic context is insufficient and inauthentic. Heidegger categorizes this unavoidable existential predicament as *Ruinanz* (GA 61: 119, 121). Since factual life experience covers what needs to be brought to light, articulating the fundamental structures of life will no longer rely on merely going along with life’s tendencies. Moreover, the criteria for *understanding* cannot be characterized by the productive outcome of background coping practices. While it is given first, it is not the final level of analysis. Everyday understanding serves as the presupposition for the transition into authenticity.

The verificationist see reflection as theoretical and therefore objectifying.

However, the transition from the *Weltanschauung* to a genuine beholding of life requires reflection. This species of reflection is not a reified ego bent backward staring at itself *ala* Husserl, but a *reflexive* practice whereby I question the entity I am in conjunction with the world I inhabit.

Reflection, in the genuine sense of intuitive contemplation, leads to retrieving the meaningful relationship (*Bezug*) I have toward action. For Dreyfus, there is no room for ‘mindedness’ in his account of practical knowledge, thus it remains sightless and existentially ungrounded. *Understanding*, then, properly understood, is enacting an experience with non-objectifying self-referentially, and interpreting the sense or meaning of it accordingly (GA 58: 262-263; GA61: 55, 60). The principled result is an understanding of myself in relation to the actions I *necessarily* take as an actor in a social and dynamic world.

Concluding Remarks: The Future of AI

The verificationists argue that Heidegger’s concept of understanding grounds a critique of traditional ontology and epistemology. However, this reading fails to recognize the ontological significance of bringing the problematic sense of the authentic “I am”—the being of life—into its genuine actualization. In this sense, actualization involves the concrete question of the restlessness of factual life. Self-understanding opens up factual life as indefinite, questionable, and labile, yet always remaining participatory in disclosive factual objectivity. All my worldly experiences involve self-acquaintance and familiarity, and thus “I am always somehow acquainted with myself” (GA 58: 251). However, “at first, Dasein is completely lost (immersed) in the world, and only in a subsequent move does it turn towards itself and thereby

acquire self-acquaintance.”⁸¹ The question and confrontation of self-acquaintance are necessary for the fulfillment of the principled conception of Being and for understanding what it means for humans to possess intelligence.⁸²

Suppose AI is indistinguishable from human intelligence. In that case, I suggest that AI programmers must incorporate the problem of meaning into AI systems, discerning the relation that these systems take towards their actions. In other words, AI systems must comprehend ‘having’ (*Haben*) meaning authentically or inauthentically. AI systems must also recognize that their immediate lived experience lacks an intelligible and existential understanding (i.e., *Verfallen* or *Verborgenheit*). Beginning with “inauthentic having,” AI needs the capacity for reflection that “leads the way” (*methodos*) into “authentic evidence” where an encounter with an individuated and genuine “having of life itself is possible” (GA 61: 35).⁸³ In my view, it is not enough for AI to outperform human actions with goal-oriented intentionality. Instead, AI must acknowledge the meaningful relationship it takes toward its performance. AI must have a basic understanding of everyday life and grasp the nexus of meaning that is brought into relief by an authentic beholding. Actions must be done so that the *relation* towards the actions is changed without making an ontic difference. The difficulty of doing this, as Ernst Tugendhat suggests, is the lack of public verifiability, or public criteria for success. According to Dreyfus, Heidegger’s account of *understanding* has an indiscernible quality characterized by the inability to know what one is doing when performing a task skillfully, making it non-mentalistic. I reframe this indiscernible quality as a self-reflective authenticity, wherein a meaningful relation is established with actions that cannot be extrinsically verified.

AI programmers will have a difficult time identifying whether the AI takes a meaningful relation towards an action. Authentic self-relation is inherently individualized, thus, cannot be put to the test. The *relation* towards action does not improve efficiency or expertise in any domain. AI programmers are attempting to enhance decision making transparency by tracking processes and identifying what factors are considered in AI performance. However, meaningful or *phronetic* action is not measured by justified reasoning. Authentic “having” is closer to a species of intuitive self-understanding that needs no justification, nor has one. Authentic “having” is one necessary feature of human intelligence that avoids competing with the exponential growth of AI’s outcome-based achievements. The success of AI (and AGI) is measured based on the results of their programming. This species of pragmatism is hopelessly ontic. It attempts to reveal and provide a service for things

⁸¹ Manfred Frank, “Fragmente einer Geschichte der Selbstbewußtseins-Theorie von Kant bis Sartre,” in *Selbstbewußtseinstheorien von Fichte bis Sartre*, ed. Manfred Frank. (Frankfurt a. Main: Suhrkamp, 1991), 518. Translation mine.

⁸² See note 9.

⁸³ Steven G. Crowell, *Husserl, Heidegger, and the Space of Meaning: Paths toward Transcendental Phenomenology* (Illinois: Northwestern University Press, 2001), 126.

(*pragmata*) on hand, without concern for the structure of experience. AI programmers are incentivized by technocratic control and dominance, leaving no place for the “passive” call of conscience or self-understanding regarding the ontological notion self-actualization. For this reason, self-understanding circumvents the verificationist account and AI’s outcome-based criteria of intelligence.

This paper aims to present a principled account of Heidegger’s concept of *understanding*. Additionally, it includes a critique of the verificationist reading. I argue that Dreyfus and others fail to grasp the fundamental insight of Heidegger’s thought. Commentators writing on AI and Heidegger often replicate this limitation. By prioritizing practical know-how over any form of mentalism, I contend that the verificationist approach restricts Heidegger’s ontology, leading to an inadequate analysis of human intelligence. Our existence remains entangled in environmental structures, thus we skillfully, adaptively, practically, and non-prescriptively engage with the world in an inauthentic manner. However, through contemplation of our existence and *Weltanschauung*, we gain the possibility of transitioning from everyday engagement to an authentic self-relation. By doing so, we surpass the mere ontic dimensions of life’s involvements. Those seeking to use Heidegger to illustrate the limitations of AI should recognize that both divisions of *Being and Time* are crucial to their argument.