Epistemic Intensions

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Constructing the World

By
David Chalmers
David Chalmers’ *Constructing the World* resists advances in philosophy of the last four decades in attempting to revive a style of systematic philosophy exemplified by the ambitious systems of Russell (1918-19), Wittgenstein (1922), and Carnap (1928). Though Chalmers emphasizes the latter, the parallels with the *Tractatus* are also telling. In both metaphysical, epistemic, and linguistic modalities fold into one, in both shared public languages arise from an underlying language divined by the philosopher, and in both an implicit theory of intelligibility emerges in which all genuine questions are answerable, leaving no room for philosophical conundrums. Chalmers’ goal is to use apriori analysis to provide a conceptual blueprint of the world which, when empirical information is added, will allow one to specify “certain basic truths from which all truths can be derived.” (xviii)

Doing this requires modifying or undoing externalist views of mental and linguistic content, singular propositions involving ordinary objects, and the long-standing dismissal of analyticity as philosophically suspect, or insignificant. But the key attack is on Kripkean metaphysical necessity, which arises from two core ideas.

A. Some properties and relations can be known apriori to be essential to their bearers, even though knowing things bear them requires empirical information.

B. Possible world-states are properties of the universe we grasp in part by specifying properties familiar objects would have were those states instantiated.

It follows from A that some propositions can be known apriori to be necessary, if true, despite requiring empirical evidence to be known. Adding B gives us world-states as properties (treated as maximal) that are epistemically possible iff we can’t know apriori they aren’t instantiated, *metaphysically possible* iff they could have been instantiated, and
actual iff they are instantiated.\(^1\) Just as there are properties objects could have had and others they couldn’t have had, so, there are maximal properties the world could have had and others it couldn’t have had. Just as some properties objects couldn’t have had are ones we cannot know apriori they don’t have, so some maximal properties the world couldn’t have had are ones we cannot know apriori that it doesn’t. Chalmers rejects this picture.\(^2\)

Crucial to that rejection is his notion of the epistemic intension of an expression for an agent, which is a function from epistemically possible scenarios to extensions. Scenarios are complete, consistent Carnapian state descriptions, each of which corresponds to a metaphysically possible world-state (or set of such). A scenario \(E\) is a set of sentences; \(E\) is consistent iff its apriori consequences are; \(E\) is complete iff for every sentence \(S\) (in the language \(E_L\) of \(E\)) either \(S\) or \(\neg S\) is an apriori consequence of \(E\). It is epistemically possible iff \(E\) isn’t knowable apriori not to be actual. Since propositions are the things known, we must ask what it is for a sentence to be an apriori consequence of a set of sentences, and for such a set not to be knowable apriori not to be actual? Assume each \(S\) expresses a proposition \(S_p\) that it contributes to the propositional attitudes of one who employs \(S\) in reasoning.\(^3\) Then (it would seem) \(S\) should be apriori iff \(S_p\) is knowable apriori, a finite set \(SS\) of sentences is apriori iff each \(S_p\) in \(SS_p\) (and their conjunction \(SS_{pc}\)) is, and \(S\) is an apriori consequence of \(SS\) iff \([SS_{pc} \supset S]\) is apriori.\(^4\)

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\(^1\) Soames (2006, 2007).


\(^3\) For Chalmers this is often a complex of \(S\)’s primary and secondary intension.

Taking state descriptions to be finite, we classify $E$ as epistemically possible iff the negation of proposition $E_{cp}$ isn’t knowable apriori. Chalmers’ holds that for any sentence $S$ in A’s language, $S$ is apriori iff $[E_c \supset S]$ is apriori for every epistemically possible $E$ for A, where $E$ is a complete hypothesis about what state the world is actually in. Thus, $[E_c \supset S]$ can be paraphrased as [If I hypothetically accept that the world-state in which $E_c$ is actual, I will hypothetically conclude that $S$] or, more simply, [If the world considered as actual turns out to be such that $E_c$, then $S$].

When $S$ is in $E_L$, either $[E_c \supset S]$ or $[E_c \supset \sim]$ is apriori. When it isn’t, Chalmers takes what A means by $S$ to be constituted by A’s idealized dispositions (abstracting away from cognitive limitations and imperfections) to affirm or deny $S$ at scenarios; assent to $[E_c \supset S]$ shows it is apriori, because it is constitutive of what A means by $S$ that $S$ is true (false) at $E$ iff A would (ideally) judge it so, conditional on $E_c$. Let $N$ be such a term, $E$ be epistemically possible, and $T_E$ be a term of $E_L$. Then, Chalmers thinks, whether or not $[E_c \supset N$ is $T_E]$ is apriori will depend on what A means by $N$, which is determined by A’s reference-fixing intentions. If (behind a veil of ignorance screening out all empirical facts) A (ideally) judges the conditional to be true, then it is apriori and $[N$ is $T_E]$ is true at $E$. This provides $N$’s extension at $E$, if there is a unique object (kind) designated by $T_E$ at $E$ -- which depends on whether $E$ corresponds to a single metaphysically possible world-state.

It may not. The nonindexical primitives of $E_L$ are highly restricted; all must be both metaphysically and epistemically rigid, where $N$ is epistemically rigid iff [One can
know apriori what/who N is] is true. Although what this questionable formulation means is left “intuitive” (367-368), in practice, Chalmers applies it to terms \( \alpha \) such that for other terms \( \beta \) of the same sort (name, natural kind term, etc.), one who understands both can, in principle, recognize the truth of either \( [\alpha = \beta] \) or \( [\alpha \neq \beta] \) apriori. (Think Russellian logically proper names and predicates denoting pure universals.) Ordinary names and natural kind terms, plus simple expressions designating nonabstract things are not “epistemically rigid,” and so are excluded from \( E_L \) (366-369). Hence, when \( N \) stands for a nonabstract object \( o \), \( T_E \) is a purely qualitative description of \( o \) in which none of \( o \)’s parts or origins, and none of the concreta to which \( o \) bears relations are named. If, as is I believe, such a description typically will not pick out the same thing at all metaphysically possible world-states, \( E \) will correspond to a plurality of states at which \( T_E \) gets different referents. In such cases, there will be no unique referent of \( N \) at \( E \), and no epistemic intension in sense originally defined.\(^5\)

Another difficulty involves the use of judgments like (1) to justify taking the putative reference-defining conditionals to be apriori.

1a. If it turns out that Jupiter is the object seen in the evening (at certain times and places), then Hesperus is Jupiter.

b. If it turns out that the stuff that falls from the sky is XYZ, then water is XYZ.

Epistemic intensions are abstracted from apriori conditionals the antecedents of which specify epistemically possible scenarios. But the examples we are given don’t specify complete scenarios and are never shown to be apriori; after all, one might accept (1a,b) because one believes the aposteriori (2a,b).

\(^5\) On p. 240, Chalmers notes that this difficulty arises on some essentialist views, but seems to discount it elsewhere.
2a. Hesperus is the object seen in the evening sky (at certain times and places).

b. Water falls from the sky.

It doesn’t help to add the antecedents of (2a,b) to those of (1a,b). Although the resulting conditionals are apriori, it makes no sense, when assigning an extension to N at E, to include N in E_L. Chalmers’ 2D framework is generated by (i) correlating metaphysically possible states with epistemologically possible scenarios, (ii) extracting assignments of extensions to expressions at these scenarios to define their primary intensions, and (iii) defining secondary intensions using (i) and (ii). This presupposes we can read off extensions of primitives in E_L without first constructing epistemic intensions for them.

For Chalmers, the expressions playing this role are terms of fundamental physics, purely qualitative terms, and primitive indexicals (‘I’, ‘now’, and phenomenal ‘this’). Since ‘gold’ names an element even though we don’t know apriori that it does, it is excluded from E_L. (234-237) Presumably, other element-names, like ‘hydrogen’ and ‘oxygen’ are similarly excluded. Restricting E_L in this way limits the information E provides. E will tell you that swarms of fundamental particles -- with position, spin, charge, motion, etc. -- bear relations to other particles and swarms. E will also state laws and inform you of the phenomenal experiences of conscious beings, one of which may be identified as you. Your task is to extract from this the complete macroscopic world-according-to-E. Deriving apriori consequences of E in E_L gives you knowledge of particle swarms and phenomenal experiences. Your understanding of English allows you to identify which swarms, sometimes accompanied by appearances, count as macroscopic things designated by English expressions. In the end, you come to know everything that would be true if E were actual. This is Chalmers’ Carnapian vision, in which nothing is irretreivably hidden.
It’s not mine. I have already shown that, on natural assumptions, scenarios won’t determine unique world-states, and epistemic intensions won’t always be forthcoming. Nor, I think, do appearances plus microstates allow agents considering scenarios to identify the needed macroscopic entities. There will never be enough appearances for that, certainly not in scenarios with few, or no, conscious agents (let alone those with inaccurate appearances of misperceiving agents). With no agents and no familiar labeled referent points in a universe of particle swarms, macroscopic entities must be identified from the relative positions of swarms. Even if agents are included, problems arise for scenarios with duplicate Earth candidates and duplicate agent populations. Suppose one Earth-candidate has bodies of liquid H\textsubscript{2}O, while the other has XYZ, or that both have H\textsubscript{2}O in certain places and XYZ in others. Which, if either, is Earth, and which is water? Don’t say it depends on adding me, ‘water’, or any word designating “watery stuff.” I can’t know apriori that if such a scenario is actual, then I exist on Earth, drink water, or use any word to designate it.

The problem stems, in part, from the conceptual poverty of E\textsubscript{L}, which results from requiring its primitive vocabulary be “epistemically rigid” and so “referentially transparent.” Following Salmon (1989) -- which discusses ‘catsup’ and ‘ketchup’ -- and Reiber (1992) – which shows that many synonyms aren’t known to be coextensive by those who understand them – one might object that the restrictions on E\textsubscript{L} are unsatisfiable. The worry is founded on a conception of public languages as shared communal institutions in which even competent speakers may harbor reasonable doubts about whether pairs of synonyms (which they use with considerable sophistication) might, in the language shared with others, differ slightly in meaning and extension. Since
such doubts require empirical evidence to resolve, Chalmers’ transparency criterion seems to exclude from $E_L$ all expressions for which they may arise. What needs to be shown is that there is a principled way of excluding such expressions from $E_L$, without excluding so much as to make complete world-descriptions in $E_L$ impossible.

Chalmers’ response to this focuses on deference. He characterizes ‘arthritis’ in Burge (1979) as picking out its referent “via a deferential intension, one whose referent in a scenario depends at least in part on how others…use the expression,” adding that “in an extreme case of complete deference, the intension will be roughly the same as the intension of ‘what others in my community call ‘arthritis’.‘” (253) He adds, “one might also worry that almost all utterances are deferential, [and] so…have the metalinguistic intension just mentioned,” noting “cases where a speaker [who] has mastered a concept, (e.g. bachelor), uses the corresponding expression (‘bachelor’) competently, but still defers to the community in that the referent of her term depends on…how people use ‘bachelor’ in that scenario.” (253) However, this response doesn’t address the key point: Since primitives of $E_L$ must be rigid and transparent, the intensions that arise from considering scenarios as actual can’t include metalinguistic components that generate reference change across scenarios. So if communitarianism shows even these primitives to be nontransparent, Chalmers risks losing them.6

The inability of ordinary English terms to appear in $E_L$ doesn’t (by itself) prevent them from being named in $E_L$. Suppose they are. How, even then, is a “deferential extension” of an expression N (mentioned but not used in $E_L$) for an agent A to be

6 The analysis of attitude ascriptions in Chalmers’ (2011, p. 614) -- which allows substitution of synonymous words (used by the ascriber of the attitude) to change truth value when their primary intensions for the agent of the attitude are different because they include deference conditions -- does not affect the requirement that primitives of $E_L$ can’t have nonrigid deferential intensions.
extracted? To succeed, A must identify the extension of N at E for others on whom A’s referent for N at E partially or wholly depends (which may include most words and agents). Presumably, A can do this only if E itself includes a theory of reference of words used by the speakers described by E, including A. Does E contain all counterfactual information about reference-assigning verdicts these speakers would (ideally) render if, within E, they were asked to consider E as actual? If so, how is that information non-circularly specified in E? If this information isn’t specified, then either correct deferential extensions won’t be assigned, or their assignment will rely on a referential theory in E different from, and presumably incompatible with, Chalmers’ theory. Candidate theories include externalist accounts according to which judgments about N’s reference at qualitatively given scenarios aren’t always constitutive of that reference. If such theories are conceptually possible, they must be included in some scenarios used to define the epistemic intension of N. Since it is not clear Chalmers’ methodology could accommodate that, he may have to the claim externalist theories are conceptually impossible. But how – if his positive theory presupposes this – is that to be shown?

Apriority raises related more particular problems. Let N be a name or natural kind term the referent of which for me is determined by a condition, my reference for N agrees with that of those to whom I bear R. If this is the only condition, Chalmers gets the result that [If N exists, I bear R to agents who use ‘N’ to refer to N] is apriori for me. But surely, nothing like this is knowable apriori. If the metalinguistic condition is one of several reference-determining conditions – D_1…D_m – we get the similarly unacceptable result that [If N exists, and if nothing is uniquely D_1…D_m, then I bear R to agents who use ‘N’ to refer to N] is apriori. Convincing objections of this sort are developed in
Schroeter (2005), which argues that identifying the referent of ‘water’ at scenarios requires information about agents, their words, and the linguistic practices relating their words to reference targets. Although this information is necessary to identify water when considering scenarios as actual, including it in scenarios leads to the falsehood that If water exists (and perhaps some other conditions are fulfilled), then certain agents, words, and linguistic practices do too is apriori. Schroeter rightly observes that this unacceptable conclusion generalizes to “virtually all concepts.” (338, 342)

The problem results from conflating conditions determining the referent of T with the content T contributes to propositions expressed by sentences containing T. When, in considering E as actual (behind Chalmers’ veil of ignorance), I am pressed for a verdict on a sentence S containing T, I often must rely on information about how T is used by speakers in E (including myself in the past) to whom I bear some relation. Only thus does T get an epistemic intension, which in turn is a constituent of the 2D-proposition assigned to S. Thus, for Chalmers, reference-determining conditions must enter into propositional content, which, since propositions are things known, renders many of them too fine-grained. Chalmers (2011) mitigates the difficulties this creates by adopting (what I view as) a problematic analysis of attitude ascriptions and apriority (mentioned in ft. 4) that posits ubiquitous contextual parameters capable of ignoring aspects of epistemic intensions when needed in ad hoc and unpredicted ways.7 In that article, a use of \[ A \text{ believes } S \] in context C is said to report the agent believing\textsubscript{c} the proposition p expressed by S in C, which, in turn requires the agent to endorse a proposition q correlated with p

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7 Chalmers’ strategy of avoiding the problems of Millianism by using primary intensions to function as Fregean senses leads him to this. I believe these problems are better addressed by the introduction of what I call “Millian modes of presentation” in Soames forthcoming a, and b.
by a contextually determined relation \( R_c \). With no constraints on \( R_c \), any unwanted predication can be disavowed, which Chalmers (2011, p. 618) rightly takes to be a worry. But whatever is said about other cases, I see no principled way of disavowing the Schroeter-type problems emphasized here.

Speaks (2010) generalizes the scope of this problem beyond cases involving metalinguistic or agent-mentioning reference-determination conditions. In his example, A associates the name ‘MJ’ with a set of properties from which two distinct but overlapping conjunctions F and G with \textit{equal reference-determining weight} can be constructed. At the actual scenario, MJ uniquely instantiates both, but at some epistemologically possible scenarios different individuals uniquely instantiate F and G. Since the properties have equal weight, Speaks observes that neither of these two individuals can be the referent of ‘MJ’, and so ‘MJ exists’ is untrue at scenarios at which there is both a unique F- and a different unique G-instantiator. Hence, he concludes, Chalmers’ wrongly labels (3) \textit{apriori}.

3. \((MJ \text{ is the F, but isn’t G}) \supset \text{ no one is the G.}\)

Could Chalmers respond that ‘MJ exists’ and ‘MJ is determinately identical either to the F-instantiator or to the G-instantiator’ are true at Speaks’ scenarios, but that ‘MJ = the F’ and ‘MJ = the G’ are both \textit{indeterminate}? If so, Chalmers might argue that the antecedent of (3), and (3) itself, are indeterminate at those scenarios, and thus (3) isn’t apriori. I don’t think this works. In addition to being implausible, it only relocates the definitive result, since (4) will be true at every E, despite not being apriori.\footnote{Since the antecedent of (4) is always defined, (4) is untrue only if its antecedent is true and its consequent isn’t. This requires something uniquely instantiating G, while also being either determinately \( \neq \) the referent of ‘MJ’ (which is impossible because of the equal weight of F and G) or indeterminately \( = \) the referent of}
4. MJ is determinately the F ⊃ ∃ x ( x ≠ MJ & x = the G)

The problem is, as before, that Chalmers’ methodology forces him to conflate reference-determining conditions with aspects of propositional content.⁹

References


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