

The Structure of Carnap's Linguistic Frameworks

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Ontology is charged with defining the contents of our universe, and intuition tells us that it ought to be the first project of any incipient philosophical system; after all, if a philosophy cannot even tell us what exists, how can it expect to describe the relationships between existents or offer guidance on how those existents should interact? Yet the project of answering Quine's famous three Anglo-Saxon monosyllables – "What is there?" (Quine 1961, I, p1) – is not as straightforward as it might appear to a man of unphilosophical character. Traditionally, these answers are offered through introspection – also known as armchair philosophy, also known as guessing – while more recent accounts look to scientific investigation as their guide. Regardless of which side of this particular fence one falls on, it is almost universally agreed that the project is a sensible one, and that its end is to identify the entities in which a sensible person should believe.

Rudolf Carnap has another idea, both deeply pragmatic and straightforwardly empirical. It is also resoundingly unintuitive at first glance, but it does have some theoretical advantages over more traditional ontological accounts. According to Carnap, discussing a new kind of entity requires the construction of a linguistic framework, defined as a new set of rules governing the ways in which these entities are described and referenced. A linguistic framework is thus a way of organizing human communication about particular sets of experiences or observations. For every linguistic framework there exist two types of questions: internal questions, which are asked and answered within the framework, and external questions asked of the larger system within which the entities are supposed to exist.

The concept can be clarified with an example, the simplest of which is Carnap's example of "thing language" – that is, the everyday language we use to describe "spatio-temporally ordered system of observable things and events" (Carnap 1950). Internal questions may concern definitions or facts, and thus may be decided through either logical or empirical mechanisms (that is, they may be analytic or synthetic); what distinguishes them from external questions is the fact that they presuppose the linguistic framework in which they are asked. Thus "Where did I leave my keys?", "Is ice frozen water?", "Who was Julius Caesar's father?", and "What kind of quarks are protons made of?" are all internal questions with respect to thing-language. To answer them is to fit their answers harmoniously into a consistent thing-system that obeys the laws of the framework.

By contrast, "What are things?" is an external question. The distinction is perhaps even easier to see when the framework in question is that of numbers; clearly "What is $2+2$?" is internal and "Are numbers real?" is external. For Carnap, such external questions are not just unanswerable, but fundamentally flawed in their formulation. It is meaningless to ask what is "real" outside the context of the framework, because it is the framework that contributes the cognitive content with which these questions are posed. Carnap is very clear on this point: "To be real in the scientific sense means to be an element of the system; hence this concept cannot be meaningfully applied to the system itself" (Carnap 1950). There is no way to talk about things outside the framework because there isn't any thing-language out there. Carnap suggests that what external questioners mean to ask is not the philosophical (pseudo-)question of whether a set of

entities exist, but rather the practical question about whether the linguistic framework introducing those entities is a useful one that is worth adopting.

The claim itself is counterintuitive, not least because the questions “Are numbers real?” and “Is it useful to talk about numbers?” feel subjectively distinct. It *seems* that external questions should have content. But this concern really only arises about frameworks whose practical utility is not at all in doubt; it is intuitively obvious that no one is “it” outside of a game of tag, no one is the dealer if we aren’t playing cards, there is no chairperson if there is no committee. There is no debate about whether the person dealing this hand is *really* the Dealer, in a wider metaphysical sense, and Carnap’s idea encourages us to carry over the analogous claim to more widely applicable linguistic frameworks. If there are ten ugly buildings on campus, there is no larger question of whether there is *really* a metaphysical Ten; numbers are just useful ways of communicating about our experiences. Put another way, frameworks that are useful in only a limited set of circumstances are easy to step outside of, while frameworks that are fundamentally ingrained in our ways of communicating about the world are difficult to temporarily suspend. There is a parallel here between ingrainedness of linguistic frameworks and the semiotic concept of “transparency of signs”; the more common and expedient a particular framework (or sign), the easier it is to forget that there is a difference between framework and entity (or between signifier and signified) (Roth 2003). When viewed this way, the initial awkwardness of Carnap’s suggestion appears to derive not from a flaw in his suggestion, but rather from our own inability to recognize the structure of our own discourse.

Carnap introduced his concept of linguistic frameworks to address the problem of constructing abstract entities within an empiricist frame of reference, and it is not surprising that a major advantage of the idea lies in this area. References to abstractions, particularly those derived from the sciences – coordinates, vectors, and the like – can be disentangled from “implicit” Platonism and given their own theoretical footing as entities introduced by useful and productive linguistic frameworks. This structure offers a clean way of setting abstractions within a strictly empiricist worldview.

The linguistic framework thesis also possesses a second class of advantages related to traditional ontological problems. One is that it does not trip over the nonexistent referent problem; denying the existence of an entity is as simple as stating that the linguistic framework in which the entity is introduced is not productive or expedient. This allows us to describe the Flying Spaghetti Monster’s appendage as noodly without implying that the FSM-framework is a useful addition to our description of the world. A related advantage is that acceptance of linguistic frameworks is fundamentally a pragmatic matter, ultimately adjudicated by “their efficiency as instruments, the ratio of the results achieved to the amount and complexity of the efforts required” (Carnap 1950). This attitude admits the utility of limited descriptive languages, such as that of Newtonian mechanics, without appealing to the nonsensical concept of “ultimate” truth or falsity. Conversely, pragmatically useless frameworks like that of Greek mythology are easy to reject without hand-wringing about absence of evidence and evidence of absence. Carnap’s structure has a built-in Occam’s Razor.

W.V. Quine found much to dispute in Carnap’s linguistic-framework concept, which he opposed largely on the grounds that the internal/external distinction paralleled

the ill-fated analytic/synthetic distinction. The traditional definition of this distinction holds that a truth is analytic if it is true in virtue of its linguistic composition, and synthetic if it relies on reference to the external world. For Quine segregates analytic statements into two classes, typified by the sentences “No unmarried man is married” and “No bachelor is married.” The first is unavoidably true, given the definitions of the words that comprise it (in fact, true given only “no”, “is”, and “un-”), while the second is true by the synonymy of “bachelor” and “unmarried man.” According to Quine, no coherent description of synonymy or of any cognate concept can be given independently of the concept of analyticity (Quine 1961, II, p23). Furthermore, Quine argues that the analytic/synthetic distinction is empirically untenable, since it is impossible to sort a speaker’s utterances into analytic and synthetic categories through observation alone (George 2000)

Characterizing Carnap’s thesis as the concept that “philosophical questions...are really pragmatic questions of language policy,” Quine wonders why philosophical questions specifically, rather than “theoretical questions” as such, should be treated this way. “Such a distinction is of a piece with the notion of analyticity, and as little to be trusted,” he concludes (Quine 1960, 271). The pragmatism on which we are supposed to base our acceptance or rejection of linguistic frameworks is not fully insulated from the internal questions that arise from those frameworks; because the analytic/synthetic distinction fails, “even internal questions are ultimately pragmatic... all judgments are pragmatic in nature” (Price 1997). In other words, because the internal/external distinction is predicated on the failed analytic/synthetic distinction, pure pragmatism is no longer sufficient to adjudicate between competing frameworks. Unable to sustain the

distinction between Carnap's internal and external stances, Quine suggests that Carnap's "pragmatism leaves off at the imagined boundary between the analytic and the synthetic" (Quine 1961, II, p46).

While Quine's demolition of the analytic/synthetic distinction is persuasive, it is less immediately clear than he would have it that the internal/external relationship is critically dependent on analyticity. Carnap himself points out that internal questions can themselves be either analytic (as in "What is $2+2$?") or synthetic (as in "Where are my keys?") depending on the framework and its usage. Shifting frameworks allows one to alter which statements are considered analytic – there might, for example, be frameworks in which "ice is frozen water" is analytic, and frameworks in which it is synthetic. Moreover, Carnap's internal/external distinction can be reworked – although with substantial loss of specificity – without either explicit or implicit reference to the analytic/synthetic distinction. This new foundation introduces the world of make-believe or metaphor as useful modes of discourse for conveying information about the actual world; the distinction between internal and external thus becomes a subcategory of the distinction between metaphorical and literal (Yablo and Gallois). Without describing this distinction in great detail, let it be said that metaphorical and literal statements are independent of the analytic/synthetic distinction, and that metaphor or make-believe games can be construed as analogous to linguistic frameworks. This formulation enables a variant of Carnap's framework thesis to escape Quine's quite convincing argument against the analytic/synthetic distinction and its conceptual dependents.

From a purely personal perspective, I am attracted to Carnap's idea. I find it (and its metaphorical/literal variant) appealing for two reasons, one intuitive and one practical;

those who do not share my intuition might be more convinced by the practical argument. My fundamental sense of “Do numbers exist?”-style questions is that they are nonsense, and it takes an act of intellectual force to take them seriously. No one who wonders about the existence of material things seriously and chronically doubts the existence of their desks, pencils, and offices, and since the concept of objects is logically antecedent to any *specific* object, wondering about such things strikes me as mere sophistry. More generally, I am inclined to accept reality – if not any specific description of it – as a basic fact, and those who dither about “the existence of existence” sound irreducibly *silly* in a way that you will probably not understand unless you share my intuition.

Thus we come to the practical reason to embrace Carnap’s framework thesis. Carving reality at the joints is all well and good, but what if there are no joints? Carnap formalizes the notion that talk of objects and entities is *construction* rather than description, a trick of communicative convenience rather than a deep insight about the material world. We may see a clear distinction between apparently discrete entities like a table and a chair, but at the level of subatomic particles the distinction vanishes. Carnap’s linguistic frameworks allow us to talk about tables and chairs because such talk is convenient, pragmatic, expedient, without committing to the notion that there “really” in some abstract sense *is* a difference between them. Disputes over categories are dissolved into disputes over linguistic utility. No longer is there any illusion of significance surrounding the classification of viruses as alive, men as apes, and so on; whichever classification is the most useful is the one that will “win” the linguistic war. A framework in which goats and frogs are classified together in one category is unlikely to be useful, so it is quickly abandoned. This adds an element of quasi-Darwinian competition to the

matter of choosing frameworks (although whether this “memetic” quality is itself a positive trait is admittedly a matter of personal taste).

Since we know that natural language emerged as a means of enabling humans to effectively communicate with each other, and not as a means of “finding truth” or any other such modern abstraction, it is reassuring to find a theory that places its emphasis on linguistic convenience rather than on a search for deep metaphysical insights. One might even take a speculative step further to suggest that human minds, primed as they are for linguistic development, are inherently predisposed to accept certain frameworks of exceptional utility (e.g., thing-language) regardless of how flawed or incomplete they might be. It has been suggested that human brains, though they may fall short of a Chomskyan “universal grammar,” are naturally sensitive to particular grammatical forms and constructions; it is likewise known that even infants have a sense of object persistence and number conservation (Dennett 1991). Both observations lead one to the idea that thing- and number-language are *natural* frameworks to accept, natural ways of organizing our perceptions of the world.

Rudolf Carnap’s strikingly original conception of existence statements as affirming usage of linguistic frameworks, rather than ontological commitments, offers an array of appealing advantages despite its initial counterintuitiveness. Although Quine’s demolition of the analytic/synthetic distinction renders Carnap’s internal and external stances untenable, this development does not totally undermine the attractiveness of Carnap’s idea. The internal/external distinction can be recast as a subtype of the distinction between metaphorical and literal, which is not susceptible to criticisms aimed at analyticity. While Carnap may have “lost” his dispute with Quine, there are both

intuitive and practical justifications for maintaining and expanding upon his linguistic-
framework concept.

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