

THREATS AND CHALLENGES TO THE SCIENTIFIC REPRESENTATION OF SEMANTICS: CARNAP, QUINE, AND THE LESSONS OF SEMANTIC SKEPTICISM

AMEAÇAS E DESAFIOS À REPRESENTAÇÃO CIENTÍFICA DA SEMÂNTICA: CARNAP, QUINE E AS LIÇÕES DO CÉTICISMO SEMÂNTICO

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ABSTRACT:

We will approach the problem of semantic skepticism by comparing Quine's view with Carnap's strategy for finding intensional equivalences that guarantee a solution to the paradox of analysis; and then we will consider how the Intensionalists use these possible solutions to save the scientificity of semantics. Quine disagrees with Carnap that plausible solutions to the question of intensional equivalence provide us with explanations for the difficult problems. These are ones where, in contrast to mere extensional indistinguishability of expressions, we need a stronger determination to choose the right interpretation. And then he has a skeptical answer to which the semanticist-linguist cannot remain insensitive. The problem is that a semanticist can only say that he has an "object" of inquiry if a normative property can be reconstructed, but that is not guaranteed by the mathematical theory used to infer intensional values. Finally, we would like to point out the relevance of skeptical doctrines about semantics that go beyond the mere haunting of relativism or quietism about meaning. Without a skeptical approach, we argue, we lose sight of the unique nature of language and its peculiar property of being an object shaped by pressures on its own ability to be theorized.

KEY-WORDS: semantics, semantic skepticism, semantic problems, Quine, Carnap, Katz

RESUMO:

Abordaremos o problema do ceticismo semântico comparando a visão de Quine com a estratégia de Carnap para encontrar equivalências intensionais que garantam uma solução para o paradoxo da análise; e então consideraremos como os intensionalistas usam essas soluções e outras análogas para salvar a cientificidade da semântica. Quine discorda de Carnap de que soluções plausíveis para a questão da equivalência intensional nos fornecem explicações para os problemas difíceis. Estes são aqueles em que, em contraste com a mera indistinguibilidade extensional das expressões, precisamos de uma determinação mais forte para escolher a interpretação correta. E Quine então elabora uma resposta cética à qual o linguista semântico não pode permanecer insensível. O problema é que um cientista semântico só pode dizer que tem um "objeto" de investigação se uma propriedade normativa puder ser reconstruída, mas isso não é garantido pela teoria matemática usada para inferir valores intensionais. Finalmente, gostaríamos de apontar a relevância de doutrinas céticas sobre a semântica que vão além da mera obsessão pelo relativismo ou quietismo sobre o significado. Sem uma abordagem cética, argumentamos, perdemos de vista a natureza única da linguagem e sua propriedade peculiar de ser um objeto moldado por pressões sobre sua própria capacidade de ser teorizada.

PALAVRAS-CHAVE: semântica, ceticismo semântico, problemas semânticos, Quine, Carnap, Katz

Recalcitrant skepticism about meaning and its consequences

W. V. O. Quine's semantic skepticism builds on a critical foundation that includes not only the cases where it is easy to be skeptical. He indicts not only that part of the vocabulary and linguistic formulas that 1. produce ambiguities that depend on contextual clarification, 2. need to be paraphrased or regimented in order to unlock the knowledge of its content, 3. depend for their determination on theoretical presuppositions from other sciences (not semantics), 4. depend on non-referential parameters – possible worlds, temporal specifications – to produce non-paradoxical nor antinomical content. The reason for this skepticism reveals a concern of Quine's that, in our opinion, has found its best expression in *Two Dogmas of Empiricism* (1951). Why *Two Dogmas*? That it is the author's most cited work need not matter to us, for in our view it is *Two Dogmas'* argument against analyticity and the dogma of empirical confirmation that provides a deep anchoring axis for all other expressions of Quine's semantic skepticism, for example, the one that is under the assumption that translation is indeterminate.

The main argument of *Two Dogmas*, which fills most of the work and justifies the author's initiative to defend his holistic thesis, is this: that the definition of analyticity cannot be non-circular since it implies concepts that need just as much clarification as the definition of analyticity itself (e.g., synonymy, definition, interchangeability, semantic rules, description of states, possible worlds, necessity, impossibility of being false). We will call it argument one. Argument one has successfully shown that the old distinction between analytic and non-analytic true presupposes the very concepts it is supposed to explain: "In brief, explanations of analyticity can never break out of an 'intensional circle' of concepts no clear than what is being explained". (HAACK, 1978, p. 174)

Argument one is not inseparable from Quine's other arguments; but despite the fact that many of them could be debunked without turning to others or expecting help from them, we argue that argument one radiates all the lines of Quine's skeptical argumentative possibilities and that it is the one that must be debunked if one wants a clean rejection of Quine's assumptions. Let us take Quine's indetermination thesis and behaviorism and anti-mentalism as an example.

Carnap (1891–1970) criticized Quine's rejection of intension over extension in *Meaning and Synonymy in Natural Languages* (1955). For him, determining intensions is no different in scientific value than determining extensions, no matter if, for that, we involve more or less mathematical and abstract tools. To overcome this new argument, Quine (*Word and Object*, 1960) had to make a concession: defend that even reference (extensional determination) is inscrutable in relevant problematic cases, i.e., those cases where the problem "what is the meaning of p?" has equally valid competing answers – as in

competing hypotheses of translation of p , or in competing hypotheses about the degree of conceptual protection for the true consequences of p . For Quine,

The stimulus Meaning of very unobservational occasion sentences for a speaker is a product of two factors, a fairly standard set of sentence to sentence connections and a random personal history; hence the largely random character of the stimulus meaning from speaker to speaker” (1960, p. 45)

Quine argues that, in accordance with his naturalistic epistemology (ontological relativity)¹, with the parameters of cognitive rules that behaviorist learning allows, we cannot overcome extension identification and exchange it for an internal and mentalistic view. Both in the case of indeterminacy and in the behaviorist account, Quine emphasizes extensionalism as the only criterion compatible with this parameter. We can then say that argument one also demonstrates the limited explanatory utility of all concepts that participate in the interdefinable intensional circle, thus justifying the resumption of extensionalism as the only criterion immune to undesirable pseudoscientific leaps in meaning research.

But this has even more general consequences. Extensionalism threatens not only the idea of intensional meaning, but any idea of meaning, period. For as soon as the repetition criterion for meaning is weakened to conform to behaviourist solutions to problems of meaning identity, the most important thing is weakened: the notion that there is a fixed rule or category-structure that is the object of linguistic inquiry. This means that Quine's extensionalism only makes sense if it coordinates a variant of Duhem's (1861–1916) idea that the confirmation or non-confirmation of a hypothesis depends on the background hypothesis that we maintain when testing the hypothesis: “My countersuggestion ... is that our statements about the external world face the tribunal of sense experience not individually but only as a corporate body.” (QUINE, 1951, p. 36-39).

This addition shows that Quine took a holistic view of the exemplification relation and allowed sufficient latitude in deciding how empirical tests affect parts of the theory. Thus, starting from the first argument, Quine arrives at a curious position regarding the general nature of the idea that there is a fixed stability to the role a proposition can play in instructing its meaning and guiding possible cognition of it.

It is possible to anticipate the point of the argument one from *Two Dogmas* in Quine's 1936 essay "Truth by Convention", in which he challenges the idea that one can know a proposition to be true just by knowing its linguistic conventions. The problem here, as in *Two Dogmas*, is the nature of the explanatory content of the convention: “We may wonder what one adds to the bare statement that the truths of logic and mathematic are *a priori*, or to the still barer statement that they are firmly accepted, when he characterizes them as true by convention” (QUINE, 1994, p. 106).

¹“If by these standards there are indeterminate cases, so much the worse for the terminology of meaning and likeness of meaning.” (QUINE, 1969, p. 29)

We think that the defense basis of this argument can be replicated to explain a semantic skepticism much more general than that easily applied to 1,2,3,4. It is often overlooked that Quine goes beyond skepticism about the preceding cases, which are the easy ones - or whose solution does not harm the idea of "meaning" but only its reducible, paraphrasable or eliminable aspects. One of the least appreciated parts of Quine's critique is that the very notion of "meaning" becomes weaker when the function of a proposition as a supporting block in a system is not immutable. If a proposition can play a greater or lesser role within the group of theoretical contributions, the extent to which its incompatibility with facts causes a general loss of theoretical content that can be learned *a priori* - as *meaning* - is not fixed. Quine goes further and extends the doubt about the possibility of semantic reading also to statements whose truth-conditions and impossibility of being false (analytic) are fully specifiable and which would therefore have an advantage that the previous examples (1,2,3,4) cannot have.

It is one thing to say that the regimentation of language permits the truth-conditions of propositions to be specified in the manner of Tarski (1901 – 1983), such as the condition that 'p' is true if and only if p; and it is quite another to say that this specification *explains* or *classifies* the incompatibility between p and non-p. Quine calls the first case a mere disquotational expression of p: "Tarski's satisfaction relation has to do with objective reference, relating open sentences as it does to sequences of objects that are values of the variables. Disquotation as such is indifferent to objective reference" (1994, p. 318).

Learning to use p outside quotation marks, important as it is, cannot be a complex semantic knowledge of the role this phrase plays in explaining its own meaning. And moreover, nothing prevents us from considering a *disquoted* sentence in different theoretical positions and projecting different instructions about its role and contribution: "In defining truth for a theory built on substitutional quantification, (...), the main job comes in the atomic sentences; and the lines that this job takes will vary utterly with the structure of the particular theory at hand" (1994, p. 320).

For this reason, mere disquoting has little explanatory value, and the second case is what interests semantics. Of course, it is also much more suspect than the first. For the first case specifies nothing more than a way to compute the incompatibility of p and non-p, while the second case would require something more: that this knowledge can be generated as a property, the incompatibility between p and non-p. This property, like analyticity, cannot be reconstructed uncircularly. Once sewn into the fabric of language, it might imply that there is a scientific way to semantically classify the notion of "not" or "incompatible," and it is precisely this illusion that underlies the mistaken belief that there is such a thing as the *fixed, stable, categorially grounded* incompatibility between "x is married" and "x is single." Just as the connective "no" is no longer clarified or explained by the concept of incompatibility or impossibility, there is no

kind of classification, category or property between p and non-p that would ground or *explain* that bachelors are not married *a priori*. To know this fact, we cannot do much more than check its extension and, if in doubt, invoke some presupposition – but for Quine, even invoking a semantic presupposition, like definition, has no explanatory character. In *Carnap and Logical Truth*, Quine says:

One quickly identifies certain seemingly transparent cases of synonyms, such as 'bachelor' and 'man not married' (...). Conceivably, the mechanism of such recognition, when better understood, might be made the basis of a definition of synonym and analyticity in terms of linguistic behavior. On the other hand, such an approach might make sense only of something like degrees of synonym and analyticity (1994, p. 129).

It follows that despite our legitimate understanding of concepts and logical rules by determining and identifying the extension of synonyms using models and truth-functions, nothing in this understanding supports the inclusion of a science that explains, classifies, or identifies an ontology of objects called "meanings." Nothing justifies that, in addition to this extension, those concepts and rules would have an intension that would determine a part of the grasp of these logical concepts that we could understand *a priori*.

As our notion of logical consequence can only be classified through notions that are inter-defined (analyticity, definition, conceivable truth, necessary, etc.) there does not seem to be any explanatory gain in this classification and what we think we know by mechanizing the recognition of necessary sentences remains mysterious, not to say "beyond theorizability." *Following Quine's skepticism about the theoretical account of meaning, we will draw some lessons about how skepticism about the determination of meaning invites a reflexive stance that can problematize the assumptions of linguistic inquiry – and bring in some thoughtful angles about the rationality of solutions for meaning disputes.*

Paradox of analysis, Intensional account and its problems

The paradox of analysis arises because the mere analysis of two well-formed, extensionally equivalent sentences is not sufficient to detect fine-grained differences between them. Thus, when these differences are relevant to the evaluation of sentences, the inability to detect them leads to contradictory results. There are expressions that have the same extension but say different things from the point of view of truth projection. That is, they project different conditions under which they could be true, and edit differently what they exclude from their possibilities of implication. In one of the most common examples, related to *Frege's puzzle*², 'The morning star is the morning star' and 'The evening star is the morning star' are indistinguishable, given only their extension, and yet they are not false in the same

²Name of the puzzle formulated by Gottlob Frege (1848 – 1925) in his 1892 work (*Über Sinn und Bedeutung*).

conditions – for the first sentence there is not even one single model in which it is false. The paradox is in the analysis, because these sentences cause different selective cuts in the space of logical possibilities describing their content, and there is nothing in their analysis that reveals this difference - so that intersubstitution of the components of one by those of the other is not forbidden by the analytic structure, but leads to inconsistencies that have to do with the extent of what each resulting replacement allows or forbids in our inferential mappings.

The paradox can elicit two first reactions as to where the problem lies. A first, simple, but valid reaction is to say that fine-grained divergences, nuances and subtleties caught in discourse are not the subject of semantic analysis, and that we cannot condemn syntax for not detecting them, because it is in the nature of any process of communication and interpretation to be generalizable and to create a tolerable margin for loss. The subtleties would relate to what can be overlooked without causing too much trouble.

The other strategy is to say that the paradox arises only because it has been hastily assumed that the syntactic structure open to analysis exhausts the identification of semantic content, i.e., that the differences that syntax fails to recognise cannot exist semantically. Talking about unverifiable differences is like talking about semantic ghosts, and linguistics has no time to deal with especters. Since this assumption was one of the most present and prevalent in the first phases of analytic philosophy, the available solution could only be a deeper analysis that would detect the difference. Bertrand Russell is (perhaps) the most famous among the pioneers who have dealt with the paradox. He made a great technical effort to solve the problem without resorting to intensions by showing that some of the symbols we mistakenly think of as categorical terms play no generalizable role in our syntax. They are incomplete symbols. He also call them “truncated description” (RUSSELL, 2010, p. 79). Russell's solution is less like that of intensionalists and more like that of a decoder of abbreviated descriptions who recognizes the contextual constraints of a symbol and prefers to eliminate it, although to do so he must figure out what structural accommodations can replace it, or, in words more in tune with Russell, the propositional function that represents the replaced/deleted content:

Now since it is possible for “the so-and-so” not to exist and yet for propositions in which “the so-and-so” occurs to be significant and even true, we must try to see what is meant by saying that the so-and-so does exist. (...) “The author of Waverley exists”: there are two things required for that. First of all, what is “the author of Waverley”? It is the person who wrote Waverley, i.e. we are coming now to this, that you have a propositional function involved, viz., “x writes Waverley”, and the author of Waverley is the person who writes Waverley, and in order that the person who writes Waverley may exist, it is necessary that this propositional function should have two properties: 1. It must be true for at least one x. 2. It must be true for at most one x. (RUSSELL, 2010, p. 85-86)

We should suspect, however, that a deeper analysis is not always possible. Unless we imagine that morning star and evening star are incomplete in some mysterious sense, the categorical function they play has a very regular and ordinary syntactic role that cannot justify the elimination of them. We can also say that the terms morning star and evening star occupy a semantically innocuous place in the economy of language, sufficient to decipher generalizable content. It is therefore quite unnecessary to treat them as pathological symbols of any kind. To introduce more structure or to replace them with functions would be a waste of respectable code. It would be an exercise in superfluous ingenuity, and could end up causing more problems than those created by keeping them as legitimate language citizens. As a result, it seems that the interface between semantics and syntax is not fair enough for the first part of this relationship. Much content that we can semantically generalize without much difficulty cannot be detected by syntax or by deeper analyzes of that syntax. When we learn an unspecified syntactic structure, we cannot rely on relations to instances to teach us stable, non-reversible knowledge, because the instance's contribution to the category is not sufficiently delineated. Thus, if we cannot specify this structure through analysis, this initial indeterminacy is cumulatively reproduced and distorts our ability to recognise different contributions from semantic input.

For Carnap, however, analysis is good and fine-grained divergences can be detected. He chooses to preserve both³. The intensional strategy has a special appeal: distinctions that are not discernible by syntax and extension, such as between morning and evening star, can exist as a property that captures the rule that distinguishes these expressions. In the words of Ruth Barcan Marcus in *Modalities and Intensional Languages*: “we are saying that to be distinct is to be discernibly distinct in the sense of there being one property not common to both” (1962, p. 305). This solution strategy is consistent with the general intuition that if the Walter Scott is the author of *Waverley*, but in a way that is still different from the way in which he is a English author, there must be some property, attribute, or ideal difference between Author of *Waverley* and English author that allows us to identify and recognize that difference cumulatively. It is only fair, therefore, that we hope that our language does not fail to encode what our common understanding so easily recognizes.

Carnap's solution has a natural resemblance to Frege's method, according to which certain descriptions for which the condition of uniqueness is not fulfilled can have a special designation, such as the null class. Additionally, it goes one step further for more difficult tasks, such as the theoretical determination of synonymy, i.e., the non-extensional equivalence of meaning in contexts of belief and

³*The Method of Extension and Intension*, in: *The philosophy of Rudolph Carnap*, P. A. Schilpp (ed), La Salle, Illinois: Open Court, 1963, p. 311.

indirect discourse. Carnap develops the concepts of intensional isomorphism and intensional structure to solve the paradox of analysis, and argues in *Meaning and Synonym* that distinctions of linguistic content that seem to go undetected by empirical methods can nevertheless be decoded by inviting speakers to apply words to merely possible circumstances: “Since one can often use this method to determine that coextensive words mean different things, he concludes that there is more to meaning than extension” (SOAMES, 2008, p. 16).

Let us shift the focus from these arguments considered in isolation to their joint effect. For Carnap, the resolution of the paradox of analysis goes hand in hand with the possibility of distinguishing intensional content by interrogation. For if the substitution of a synonym for an expression in a sentence produces two different projections of truth, i.e., propositions falsifiable in different circumstances, the solution is not complete unless we find a query method to determine the conditions under which the first and the second (after substitution) sentences receive divergent verdicts from native users of the sentences. Otherwise the fine-grained content would remain undetectable, and the sameness of meaning would amount to nothing. Even if native speakers lack the ingenuity to form a richer concept of sameness than the extensional one, an experienced linguist can formulate questions specific enough to capture evidence for their verdicts that justify their competence in intensional recognition.

Given enough specific questions, the native speaker will not be able to make a "yes" verdict about *x* is blue and *x* is not blue, and so the linguist will have established a rule that unlocks the property blue only for words in the target language that are synonymous with blue. If Carnap is right, indetermination ensues but it is harmless; we can use the technique of intensional isomorphism detection to capture sufficiently specific similarities between expressions so that these expressions can serve as equivalent of each other. The intensional isomorphism is also structural: for the determination of blue is specific enough that any instance of *x* is blue cannot be distinguished from an instance of *x* is not (non-blue), and then our choice of wording for the property will be irrelevant in any further solution for the problem of meaning. So far we do not have enough differences between Carnap and Quine. As William Berge said:

the parallels are striking: Carnap agrees with Quine (on the basis of the method of the name-relation) that there is more than one way of assigning referents to a given term, ways which are mutually incompatible and which preserve all of the facts. Moreover on both accounts, an unambiguous semantics for a term is sought by asking questions about identity, (is this gavagai the same as that gavagai?) but on closer scrutiny, a nonstandard interpretation of = is found to yield a nonstandard treatment of the original term. Also by relativizing assignments of referents to a non-unique conception of the name-relation it would seem that Carnap have anticipated Quine's doctrine of ontological relativity. (BERGE, 1995, p. 119)

One divergence must be noted, though. One could argue that Carnap cannot conclude that he has found intensional equivalence simply because he has found indeterminate compatibility between the

linguist's hypotheses and the respondent's refinements. Quine is one who claims that. Once we have established compatibility between the linguist's hypothesis and the native speaker's verdicts, we cannot say that we have discovered intensional isomorphism, since there are still an indefinite number of hypotheses compatible with the same facts. The student of "meaning" would need something else to conclude intensional equivalence. He would need a deeper equivalence, which we call structural equivalence, between the use of the term and the replacement hypothesis. Structural equivalence would guarantee that the syntactic role of the language term and the replacement-hypothesis-term have no categorical (structural) incongruence; and once this condition is met, there will be no valid paraphrases of one expression that are incongruent with the valid paraphrases of the other expression.

This is exactly where the trick lies. At the beginning of the explanation of the paradox we stated that the problem results from a underspecification of the syntactic form; if this was the problem in the first place, we cannot solve it by assuming that we have eliminated that underspecified syntax. And if we have eliminated that underspecification, the problem was solved before. Quine says that: "Interchangeability *salva veritate* is meaningless until relativized to a language whose extent is specified in relevant respects" (1951, p. 287).

However, anyone working on a translation study – which differs from the semantic study only in the degree of radical challenge – is trying precisely to find the correspondence in content that syntax and analysis could not detect in the first place. A more current solution to a similar problem (Frege's puzzle) may improve our view of what is at stake. In order to represent intensional isomorphism, we could use representational relations. According to Kit Fine, the intersubstitution of expressions that diverge intensionally can be allowed in relational contexts of representations (as in statements of belief) by a strict co-reference property or a restriction of the identification potential. According to B. Pickel, B. Rabern: "The input to semantics must be enriched with patterns of coordination between occurrences of variables" (2017, p. 100). In the footnote on the same page, the authors further explain Fine's position:

Fine is alluding to ([22, 23]: 69-70) who suggested that relations of variable binding be represented using "quantificational diagrams", where lines or "bonds" connect quantifiers to the positions in predicates that they bind. This idea was echoed in ([12]: 244), who connects it to Frege's syntax whereby "variables" (i.e. German letters) are merely typographic parts of the quantifier sign serving to link the concavity to the relevant "gaps" in predicates. (2017, p. 100)

Fine's solution need not be considered exclusive⁴, but the fact that it is a possible solution shows that the kind of reasoning involved in strategies for identifying intensional content is not harmless to the compositional coherence of the language. This sheds light on the difficulties faced by a translator: the challenge is so radical that its solution cannot be assumed through a prior semantic framework. The

⁴Other recent solutions are 'explicit coreference' (TAYLOR, 2015) and 'de jure codesignation' (PRYOR 2017).

translator cannot know *a priori* whether the paraphrases of the term in the native language correspond to the paraphrases of the translation hypothesis because his/her knowledge is based on facts that are extrinsic to the previously encased syntax of identity. And that is precisely what constitutes the problem of translation. Quine's semantic skepticism depends on a careful consideration of the translation problem. For we are dealing with enrichments in the solution strategies for intensional identities in cases of translation precisely because there are structural gaps between languages that the translator must remedy. However, it is necessary to note when these enrichment aids can be confused with distortions⁵. Because the enrichment of language to recognize differences that were previously unrecognizable leads to losses that exact their price in the alteration of previously recognized implications and analyticity.

Back to scientificity

The ingenuity of Quine's critique was not enough to eradicate the respect that semantics acquired as the epicenter of linguistic study. This has a simple reason. What could remove semantics from its scientific place would be its inability to predict communication and interpretation phenomena. If these phenomena remained mysterious or inaccessible from a semantic point of view, we would have irrefutable evidence for semantic skepticism. Suppose that our mappings were unable to reward similar interpretations with similar values, and different interpretations with different values: then we could say that these mappings are useless. They would chart the semantic territory so poorly that we could not use these maps in the hope of being guided by them in communication and interpretation strategies. However, this is not the case. Semantics is still considered a good theoretical prediction of how to orient to the content of signs.

Optimism is justified even if we do not want to admit an ontology of intensions. For even for intensional contexts it is possible to make good maps. Property-preserving isomorphisms are assessed through coordination relations in different domains. It is always possible to find an empirical and arbitrary motivation for fitting the extension of our expressions to an intensional hypothesis by means of coordinated supervenience relations between domains that we can capture in quasi-formal terms. In

⁵An interesting critique of Fine can be found in *Does Semantic Relationism Solve Frege's Puzzle?* by Bryan Pickel and Brian Rabern: "Fine can explain why a language user can understand a complex expression in terms of that language user's knowledge of the semantic connection on the sequence of simpler expressions that compose the complex expression. But the language user's knowledge of this semantic connection does not arise from her understanding of the semantic features of the simple expressions in the sequence. Explanation comes to an end at a language user's knowledge of a semantic connection on a sequence of expressions" (2017, p. 105)

intensional or mention contexts - citation, etc. - which threaten the structural stability of the language composition, it is always possible to work out mathematical solutions: “As Montague has shown, intensional languages and intensional logic can be formulated as mathematical theories” (HEINDRICH, 1973, p. 188).

Carl H. Heindrich outlined an attempt to reduce generative semantics to intensional logic, which was tested by the efficiency of the semantic description adequate to this reduction: “the philosophical and linguistic importance of this reduction is not only a question of taste: either a effective semantics is available or not” (HEINDRICH, 1973, p. 198).

This demonstrates that, if the solution to some practical problem depended on this reduction, such as translating the assertions of isolated tribes, semantics would occupy a central place among all the sciences used to organize knowledge of the problem and to frame the types of admissible solutions – those that would prevent mappings in which true and false sentences are irrestrictly mixed.

This justifies why Quine has failed to convince linguists and cognitive scientists, who would be the two most important classes of judges to convince of such a campaign. Jerrod Katz said that:

Advancing philosophical arguments against the principles on which his [the skeptic about meaning] skepticism rests would just renew old debates. The only convincing argument consists in showing that the concept of meaning provides the basis for a theory that successfully accounts for semantic facts and without this concept no such basis exists. (KATZ, 1972, p. 2)

Katz concedes that something more is required: “We assume that there has instead been some misconception about how the study of meaning should best proceed in trying to answer this question [what is meaning]” (1972, p. 2).

Just before the passage quoted above, Katz anticipates what he believes is the best way to answer this question:

if one believes, as I do, that the tragic history of semantics is instead a consequence of a failure to pursue a satisfactory approach to understanding meaning, he has no more no less to do than to construct a theory that uses the concept of meaning to reveal underlying uniformities in language and to show how semantic phenomena reduce to them. (KATZ, 1972, p. 2)

Consequently, the study of semantics continues to enjoy, today, all the status of theory that is granted to other sciences. As difficult as it is to give a technical semantic characterization to translations and the content of scientific laws, it seems to be consensual that this does not involve any mystery or inaccessible hermeticism. The internal properties of a formal system are defined, and whatever makes a sentence non-pathological (paradoxical), gaining a truth value at exactly the grounding point where it cannot be reversed to false can be monitored by how it adapts to the system. This preserves semantics

as a respected science, insofar as it is able to give a description of phenomena linked to meaning and a solution to problems of ambiguity, misunderstanding, etc:

It is fairly uncontroversial to say that an adequate semantic description must enable us to state, for each of the infinite number of sentences in a language, whether it is analytically true, whether it is contradictory or anomalous, with which sentences it enters into full or partial paraphrase relations, and with which sentences it enters into entailment relations. (WILSON, 1975, p. 3)

This framework can be extended to handle sentences that encode modal content. Different descriptions of permissible truth-value assignments and different descriptions of the consistency of the consequence relation arise naturally from different restrictions on the accessibility relations between possible worlds. It is then described that A-properties supervene upon B-properties if B-indiscernibility implies A-indiscernibility within the relevant range of possible worlds.

Unavoidable over-problematization of Meaning-issues

It is clear that something has been learned from Quine's skepticism, and it would be a problem if this lesson were lost to force the preservation of the institutional maturity of semantic theory in the field of linguistics. By showing that the data proposed for semantic investigation – the linguistic regularities described by the notion of synonymy, by definition, by descriptions of states – are interdefinable and thus demonstrate an explanatory quasi-circularity, Quine shows that what counts as semantic in our awareness of these regularities is not a mere fact of co-reference, no matter how we enrich the coordination conditions to detect strict co-references. It depends on theoretical considerations that we need to formulate separately, as a sprawling problematization.

The problem is not the lack of consistent presuppositions found in linguistic uniformities that would support decision procedures for disambiguating sentences and selecting the best translations between languages. The problem is that this "data" is already theoretical in nature. If we try to weave them into our language like an enriching identity condition, the loss of compositionality will expose the linguist to the accusation of distorting the language to find his semantic solution (a reproach that the translator has learned to hear without wasting much effort on self-promotion).

This became clear when, in trying to solve the paradox of analysis, we found that we could not assume structural equivalences, the absence of which caused the problem. If we are able to say that our syntax recognises a content, the first problem is already solved. The underspecification of syntax can be remedied if we find better categories or better tools of discrimination, but it is not clear whether this is done semantically or by improving our overall understanding of natural science. In the second case, the

translator must encode large portions of our scientific knowledge to justify a syntactically stable translation.

Be that as it may, there is still a whole way of problematization that we had to go before we could recognise synonymy as strict co-reference. There was already a process of psychological and sociological standardisation before we came to a time when, in addition to the facts about signs, we had a normative codification of their role in statements of belief and common sense assertions about correct translation:

Quine's indeterminacy argument (if correct) brings this out. Sure enough our common sense understanding of semantic notions allows for determinate translations. Quine's point is to show that there our intuitive understanding errs. Pretheoretic common sense is wrong in assuming "common understanding of semantic notions" (in the "intensional sense" intended by Katz), if Quine is right. (SAARINEN, 1982, p. 301)

What Quine addresses with the problem of indeterminacy of translation and holism is again better outlined with a version of the argument of *Two Dogmas*: that no explanatory utility is added once we have found a structural similarity between languages that makes translation stable. When we reach the point where we can know this without further rules, we are already at the point of semantic consensus, where the hard problems have already been solved. Because when this problem is solved, we would have reached exactly the state of semantic consensus that is supposed to exist when we say that we "speak the same language." So for the translator to presuppose structural equivalence is completely useless.

It is easy to support the thesis that the ability to support the homogeneity between different hypotheses for interpreting a sign depends on supervenient structural morphisms involving two or more disjoint domains in which indistinguishable distributions of properties in the subvenience domain lead to indistinguishable distributions in the supervenience domain. This is what the cross-comparison between native speakers' judgments and the semantic models of the two languages should show us. But this mathematical ability to cross models and find congruences between structures should not lead us to believe that we will find a realm of similarities between super-empirical things. Because from this follows only the indistinguishability of the extensions. The intension is reduced to the extension. However, Carnap likes to preserve both an intensional and an extensional theory. In his reply, Quine suggests that it is irrelevant to speak of intensional isomorphism because the identification of this intension adds no normative determination or rule of correction. In a 1982 text (*Theories and Things*), Quine makes a remark about the possibility of treating categorical errors as simple false hypotheses about properties, thus turning the normative and *a priori* aspect of a logical syntax into a falsifiable theory, like any other:

Instead of agreeing with Carnap that it is meaningless to say 'This stone is thinking about Vienna', and with Russell that it is meaningless to say 'Quadruplicity drinks procrastination', we can accommodate these sentences as meaningful and trivially false. Stones simply never think, as it happens, and quadruplicity never drinks. (QUINE, 1982, p. 111)

The point is that similarity and divergence of properties is nothing but extensional and therefore compatible with a number of unspecified intensional theories, many of which may be incompatible (if not for now, we may discover the inconsistency in the future of the use of the expression). What is there to say about meaning? There is no explanatory gain.

One last remark, however, can be made in favour of Quine against linguists not-persuaded by his skepticism. We can say that when skepticism plays a general role in causing enough turmoil to change the targeted theoretical field, it succeeds, and Quine achieved that goal. In seeking richer forms of coordination and strict references, we are already making concessions; and if the linguist acquiesces in these conditions, he may face an unpromising future, both in the preservation of his original problems and in the technical competence of his tools for dealing with new ones. It is not only the reputation of the linguist that may end up like that of the translator, who is classically compared to a traitor to the author: *Traduttore, traditore*. *In addition to stereotypes, there are more serious threats. The more the problems the translator has to deal with become the main problems of the linguist, the more the latter is overwhelmed by puzzles that cannot be solved without new parameters - not truth-functional ones - to close the structural gaps between different languages.* The leap from fact (extension) to meaning is possible, but it has a cost to which linguists cannot remain insensitive.

The price of this leap is that language theory has to deal with the problem of how to study language learning, and this is done not only through language – by means of propositionally formulated questions – but also involves the whole "vast verbal structure" and the historically accumulated associative network. Thus the linguist's work becomes a kind of ecumenical compiler of the general average of all linguistically expressible knowledge, "and indeed of everything we ever say about the world," by combining (a) all the culturally accepted "body of theory" and (b) learned language into the same group.

Conclusion

The questions we brought in this article are about our very notion of collective communication and common understanding. But they are rooted in our understanding of the possibility of scientific treatment of the object – meaning – that is problematized in our communication strategies and interpretation solutions. Ultimately, then, the issue is the possibility of linguistics as a science that can rely on the notion of meaning, or that must overflow to problematize collateral presuppositions, pragmatic parameters, and so on. The debate between Carnap and Quine shows a remarkable point for the approach of this question, where the solutions to the problems of indeterminacy of meaning are considered from two different angles: Carnap thinks that intensional solutions to indeterminacy are as

scientific as any other; Quine warns that even if we can improvise solutions mathematically, there is no gain in explanation, because there is always a whole range of possible mathematical solutions and therefore we cannot say that we really "determine" the problem distinguishing correct from incorrect answers to meaning questions. We are not even sure that a mathematical determination working in the moment will not produce some inconsistency in the future, since new intensional theories can refute the old ones. Besides that, Quine recognizes that there are ontological costs in intensional solutions. These may interfere with our ability to give recognisable content to certain semantic compatibilities and incompatibilities.

As this debate continues to take new forms, however, it becomes clear that the very essence of semantics as an independent science is at stake. The very notion of meaning has been strained. Since it was defined as a referential map capable of providing resources for computing the identity of a message and a signal, this identity also had to be explained without inflating the assignment system with a non-standard (fine-grained) interpretation of identity and 'non-identity'; if this were not possible, it would create a superontology of abstract objects that would have to be adapted in our syntactic compositions, and the consequence would be either (1) the collapse of the declared object itself or (2) the suture of that object to a basis of prior theoretical anchoring. Since choice 2 seems more desirable, the charge against Quine is precisely that it is difficult to understand how he can distinguish between theory and language, justifying Noam Chomsky's doubts in *Quine's Empirical Assumptions*:

Quine's views about the interpenetration of theory and language are well known, but even accepting them fully, one could not doubt that a person's language and his 'theory' are distinct systems. The point is too obvious to press, but it is, nevertheless, difficult to see how Quine distinguishes the two in his framework. (CHOMSKY, 1968, p. 53)

Chomsky's concern is valid, but it can only be answered by a related statement about the usefulness of maintaining an attenuated view of any semantic theory, which justifies the fear that a very strong scientific conception (based on *a priori* categories or innate linguistic uniformities) will bring back the danger of dogmatism and discriminatory selection of what counts as a social parameter of understanding and communication. We defend that Quine's semantic skepticism has not exhausted its intellectual productivity. There are important lessons that either have not been fully incorporated or are deliberately ignored because of fear of Quine's more radical consequences that would lead us to relativism and fallibilism as to the possibility of agreeing or disagreeing with the extension of logical consequence and the determination of the property of necessary truth (analyticity).

Quine's semantic skepticism explores the fact that language has a singular nature and its functioning can only be tested in terms of parameters that are coordinated, structurally aligned, leading to several equivalent hypotheses about meaning, analyticity and logical implication; but which have no

direct relation to a strong determination by categorial facts and therefore may not point to a correct – as opposed to an incorrect – answer. Many answers may compete, and no decision procedure will describe the correct one.

The same skepticism reminds us of the uniqueness of meaning as a 'problem,' a problem whose solution requires coordination among many forms of reference identification, and which can withstand cross-linguistic comparisons only if the object under study is adapted to a new framework that inflates our semantic knowledge as we build our ability to discriminate our semantic input. This leads us to suspect that the idea of meaning was born not as any object of study, but as one of the first objects of intense philosophical reflection on the normative behavior of our practices of thought, assertion, argumentation, scope of implication, and scientific determination.

To be honest, this gives us no reason to view semantic skepticism with overindulgent eyes. Nor should we take any of these arguments as absolute grounds for assuming that we have no objective methods for finding solutions to doubts about meaning or for choosing better ways of implication and logical consequence from assumptions and premises. Quine's skepticism, however, allows us to keep open the resistance to dogmatic ways of canonizing these methods, which has happened many times in the history of philosophy and can happen again in the history of modern science (as methods canonized by transcendental or metaphysical theories based on insights into grammatical structure). We can – thanks to this weakening of the strong meaning foundationalism – speak at length about those aspects of "meaning" that remain enigmatic, without fear of falling into quietism or mysticism. In the absence of healthy skepticism, one can fairly suspect that various areas of language knowledge production (the better example is natural language grammar) exert malignant pressure on one's ability to theorize and problematize language and meaning. This pressure can be seen as the dominant force in the propagation of the prevailing worldviews and even in the construction of metatheories about the limits of our knowledge. This is the lesson that semantic skepticism can still teach. Another problem is deciding whether we should learn this lesson from a philosophical (idealistic, phenomenological, etc.) or naturalist perspective (the choice of Quine). This problem is beyond the scope of this article.

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VOLLET, Lucas Vollet. THREATS AND CHALLENGES TO THE SCIENTIFIC REPRESENTATION OF SEMANTICS: CARNAP, QUINE, AND THE LESSONS OF SEMANTIC SKEPTICISM. *Kalagatos*, Fortaleza, vol. 20, n.3, 2023, eK23054, p. 01-18.

Recebido: 06/2023

Aprovado: 09/2023