Bilateralism, Independence, and Coordination

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RESUMEN

El bilateralismo es una teoría del significado según la cual la afirmación y la negación son actos de habla independientes. El bilateralismo también propone dos principios de coordinación para la afirmación y la negación. Argumento que, si la afirmación y la negación son actos de habla independientes, no pueden ser coordinados por los principios bilateralistas.

PALABRAS CLAVE: significado, aserción, negación, independencia, coordinación

Abstract

Bilateralism is a theory of meaning according to which assertion and denial are independent speech acts. Bilateralism also proposes two coordination principles for assertion and denial. I argue that if assertion and denial are independent speech acts, they cannot be coordinated by the bilateralist principles.

KEYWORDS: *Meaning, Assertion, Denial, Independence, Coordination*.

Unilateralism is a theory of meaning proposed by Michael Dummett [Dummett (1981)]. It says that the assertion conditions give the meaning of a sentence. According to the unilateralist, to describe the meaning of a sentence, we only need to describe the conditions that entitle us to assert that sentence. Bilateralism is a theory of meaning proposed by Ian Rumfitt [Rumfitt (2000)]. It says that the assertion and denial conditions give the meaning of a sentence. According to the bilateralist, to describe the meaning of a sentence, we need to describe the conditions that entitle us to assert and the conditions that entitle us to deny that sentence.

The difference between unilateralism and bilateralism is apparent in the case of negation. The unilateralist argues that the denial conditions of a sentence are equivalent to a failure to satisfy its assertion conditions. For a declarative sentence A, we can deny it when there are not now, never have been and never will be grounds to assert A. For instance, if a

contradiction follows from assuming that the assertion conditions of A have been satisfied, we can deny A. According to the unilateralist, denying A is equivalent to asserting its negation.

The bilateralist (following Timothy Smiley [Smiley (1996)]) argues that assertion and denial are different speech acts, and that assertion conditions are independent of denial conditions. It might happen that there are not now, never have been and never will be grounds to assert A and yet we cannot assert its negation. This happens when A has denial conditions that cannot be understood as a failure to satisfy its assertion conditions. According to the bilateralist, to assert the negation of a sentence, that sentence needs to be denied, and satisfaction of the denial conditions does not follow from the failure to satisfy its assertion conditions:

> Confronted with the question "Is it the case that A?", an adherent of the bilateral conception will insist upon distinguishing between the responses "There are no grounds for answering affirmatively" and "No." Indeed, he will insist on distinguishing between these responses even when the first is understood to mean "There are [not] now, never have been, and never will be grounds for answering affirmatively", and is not merely tantamount to "I (or we) do not have any such grounds at present" [Rumfitt (2000), p.798].

Bilateralism appeals to this understanding of assertion and denial in its account of the meaning of the logical constants. The account provides two pairs of introduction and elimination rules for each constant. For a declarative sentence A let +A be a signed sentence that stands for its assertion and -A for its rejection. The meaning of negation, for instance, is given by:

$$\frac{-A}{+(\neg A)} \quad [+ \neg\, \text{I}] \qquad\qquad \frac{+(\neg A)}{-A} \quad [+ \neg\, \text{E}]$$

$$\frac{+A}{-(\neg A)} \quad [- \neg\, \text{I}] \qquad\qquad \frac{-(\neg A)}{+A} \quad [- \neg\, \text{E}]$$

Take the pair of rules [+ ¬ I], [+ ¬ E]. The introduction rule [+ ¬ I] tells us that satisfaction of the denial conditions of a sentence implies the satisfaction of the assertion conditions of the negation of that sentence. The elimination rule [+ ¬ E] tells us that satisfaction of the assertion condi-

tions of the negation of a sentence implies the satisfaction of its denial conditions. The rules [– ¬ I] and [– ¬ E] have similar readings.

The bilateralist understanding of assertion and denial also contains two coordination principles. These principles and the bilateralist rules are supposed to coordinate assertion and denial for all formulas.[1] Let Γ stand for a (finite) set of signed sentences, α a signed sentence and $\alpha *$ the signed sentence obtained by reversing the sign of α. The coordination principles proposed by bilateralism are the following:

(C1) If $\Gamma \vdash \alpha$ and $\alpha*$ then $\Gamma \vdash \bot$,

(C2) If $\Gamma, \alpha \vdash \bot$ then $\Gamma \vdash \alpha*$

Principle (C1) tells us that if α is provable from the set of sentences Γ and $\alpha*$ is provable from that same set of sentences, then Γ leads to a contradiction. Principle (C2) tells us that if a contradiction is provable given a sentence α and a set of sentences Γ, then $\alpha*$ is provable from Γ.

As we have seen, according to bilateralism, the existence of independence between assertion and denial prevents us from inferring the satisfaction of the denial conditions from the failure to satisfy the assertion conditions. And as we have just seen, principles (C1) and (C2) are supposed to coordinate assertion and denial. I argue that these claims are incompatible.

Take principle (C2). Suppose that we can infer a contradiction from the satisfaction of A's assertion conditions. This principle would then give us a way of inferring the satisfaction of the denial conditions of A, without actually having to check that this is the case. This result contradicts bilateralism. We can infer a contradiction from the assertion of A when its assertion conditions can never be satisfied, but this is supposed to be different from the satisfaction of A's denial conditions.

A related problem arises when we consider the notion of a denial condition that is not equivalent to a failure to satisfy the assertion conditions. The existence of these conditions would illustrate the independence between assertion and denial. Let us first recall the example provided by Rumfitt as evidence for their existence. Assume that Queen Elizabeth I was bald when she died and that all the relevant evidence has been lost in a fire. Let A stand for the sentence "Queen Elizabeth I was bald when she died." According to Rumfitt, since the assertion conditions of A can no longer be satisfied, the unilateralist will assert the nega-

tion of A.[2] Nevertheless, A is true (since we are assuming that the Queen was bald when she died). Hence, according to bilateralism, adoption of the unilateral conception of meaning implies asserting a sentence that is false. Moreover, the assertion conditions of A can no longer be satisfied, and yet its negation cannot be asserted. According to bilateralism, the negation of a sentence can be asserted if its denial conditions have been satisfied. Therefore, A must have denial conditions that are not equivalent to a failure to satisfy its assertion conditions.

Let B stand for the sentence "The assertion conditions of A are satisfiable," and ¬B for "The assertion conditions of A are unsatisfiable." Then $+(¬B) \vdash /-A$ says that satisfaction of the denial conditions of A cannot be inferred from the fact that the assertion conditions of A are unsatisfiable. I argue that $+(¬B) \vdash -A$ follows the bilateralist rules for negation and coordination principles. Assume that $+A \vdash +B$. Given this sequent, weakening gives us $+(¬B), + A \vdash +B$. Identity gives us $+(¬B), + A \vdash +(¬ B)$ and rule $[+ ¬ E]$ gives us $+(¬B), + A \vdash -B$. Having $+(¬B), + A \vdash +B$ and $+(¬B), + A \vdash -B$, principle (C1) gives us $+(¬B), + A \vdash ⊥$ and principle (C2) allows us to conclude $+(¬B) \vdash -A$. That is, the bilateral rules and coordination principles allow us to infer the satisfaction of the denial conditions of "Queen Elizabeth I was bald when she died." when its assertion conditions are unsatisfiable.

The previous argument relies on the sequent $+A \vdash +B$. But this sequent is practically tautological. It merely says that we can assert that A is satisfiable when its assertion conditions are satisfied. The argument then employs the bilateral rules and the coordination principles to show that, although A is supposed to have denial conditions that are not equivalent to a failure to satisfy its assertion conditions, we can deny A when its assertion conditions cannot be satisfied.

These arguments illustrate the tension between two bilateralist claims. Namely, that assertion and denial are independent and that these speech acts are also coordinated. I claim that if these claims are compatible and satisfaction of the denial conditions does not follow from the failure to satisfy the assertion conditions, principles (C1) and (C2) do not provide an adequate account of their coordination.

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NOTES

[1] It might be worth noticing that Fernando Ferreira [Ferreira (2008)] proved that assuming coordination for atomic formulas is insufficient to preserve (C2) at the molecular level. This result shows that coordination principles and bilateral rules cannot rule out a failure of coordination for complex formulas, even when coordination of assertion and denial is assumed for atomic formulas.

[2] It might be worth noticing that Michael Dummett [Dummett (2002)] argued convincingly that the unilateralist is not supposed to assert the negation of A. According to unilateralism, we can deny A when we know that there are not now, *never have been* and never will be evidence that satisfies its assertion conditions. In the scenario presented by Rumfitt, the evidence for the assertion of A has been lost in a fire. That only means that there are not now and never will be evidence to assert A. That evidence existed before its destruction. Hence, it is not the case that there are not now, *never have been* and never will be evidence that satisfies its assertion conditions. In other words, the unilateralist is not supposed to assert the negation of A in the example proposed by Rumfitt. Moreover, this distinction also allows the unilateralist to argue that Rumfitt has failed to show the existence of denial conditions that do not correspond to a failure to satisfy the assertion conditions.

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