

## **CASTAÑEDA, Hector-Neri (1924–1991)**

Héctor-Neri Castañeda-Calderón (December 13, 1924–September 7, 1991) was born in San Vicente Zacapa, Guatemala. He attended the Normal School for Boys in Guatemala City, later called the Military Normal School for Boys, from which he was expelled for refusing to fight a bully; the dramatic story, worthy of being filmed, is told in the “De Re” section of his autobiography, “Self-Profile” (1986). He then attended a normal school in Costa Rica, followed by studies in philosophy at the University of San Carlos, Guatemala. He won a scholarship to the University of Minnesota, where he received his B.A. (1950), M.A. (1952), and Ph.D. (1954), all in philosophy. His dissertation, “The Logical Structure of Moral Reasoning”, was written under the direction of Wilfrid Sellars. He returned to teach in Guatemala, and then received a scholarship to study at Oxford University (1955–1956), after which he took a sabbatical-replacement position in philosophy at Duke University (1956). His first full-time academic appointment was at Wayne State University (1957–1969), where he founded the philosophy journal *Noûs* (1967, a counter-offer made to him by Wayne State to encourage him to stay there rather than to take the chairmanship of philosophy at the University of Pennsylvania). In 1969, he moved (along with several of his Wayne colleagues) to Indiana University, where he eventually became the Mahlon Powell Professor of Philosophy and, later, its first Dean of Latino Affairs (1978–1981). He remained at Indiana until his death. He was also a visiting professor of philosophy at the University of Texas at Austin (1962–1963) and a fellow at the Center for Advanced Study in the Behavioral Sciences (1981–1982). He received grants and fellowships from the Guggenheim Foundation (1967–1968), the T. Andrew Mellon Foundation, the National Endowment for the Humanities, and the National Science Foundation. He was elected President of the American Philosophical Association Central Division (1979–1980), named to the American Academy of Arts and Sciences (1990), and received the Presidential Medal of Honor from the Government of Guatemala (1991).

Castañeda’s philosophical interests spanned virtually the entire spectrum of philosophy, and his theories form a highly interconnected whole. Thus, he was a system-builder, while still remaining firmly in the tradition of Anglo-American analytic philosophy. His work was rigorous and formal where possible, but his preferences lay in developing comprehensive theories that could account for all available data.

His theory of the nature of practical thinking arose from his earliest work, on the foundations of morality, for which he developed a theory of deontic logic based on an “ought-to-do” operator. Unlike the more usual “ought-to-be” operator, which applies to propositions (*it ought to be the case that P*, where *P* is a proposition), the “ought-to-do” applies to the proposition-like entity that remains when the “ought” is removed from *John ought to pay his debts*: This is analyzed, not as *it ought to be the case that John pays his debts*, but as *Ought-to-do(John to pay his debts)*. Consistent with his later theory of guises (see below), there is a special mode of predication that links, e.g., *John* with *to pay ones debts* to form the “practition” *John to pay his debts*, expressible in English by a subject noun-phrase followed by an infinitive verb-phrase. The special case of a first-person practition is called an “intention”: In *I ought to pay my debts*, the ought-to-do operator is applied to the *I to pay my debts* intention (i.e., the intention I have to pay my debts). This theory was explored in great detail in *Thinking and Doing* (1975), in which Castañeda showed how it can provide solutions for the paradoxes of deontic logic (including, especially, the Good Samaritan Paradox). His theories of practical reasoning have found many applications in artificial intelligence, both in the field of planning and acting, and in computational theories of deontic reasoning (especially in the work of the computational legal theorist L. Thorne McCarty). (For further reading, see: “On the Semantics of the Ought-to-Do” (1970), “Intentions and the Structure of Intending” (1971), *The Structure of Morality* (1974), *Thinking and Doing* (1975), “The Paradoxes of Deontic Logic” (1981), and *Thinking, Language,*

*and Experience* (1989).)

The special role of the *self* occupied much of Castañeda's philosophical career and provided one of his motivations for doing philosophy, which, he often said, should be done "in the first person, for the first person". He singled it out for special treatment in his theory of intentions (mentioned above), and he investigated what he called the "phenomeno-logic" of "the I". ("Phenomeno-logic" is not phenomenology; rather, it is the study of the logical structure of phenomenal appearance.) One of his major discoveries was the "quasi-indicator" (or "quasi-indexical"): a term that allows a speaker to attribute an indexical reference to another cognitive agent. E.g., the speaker of "John believes that he himself is rich" uses the quasi-indicator "he himself" (often written "he\*") to express *John's* first-person reference to himself (i.e., to John). That sentence is the *speaker's* way of depicting the proposition that *John* would express in the first person by "I am rich". Note that the speaker cannot express it via "John believes that I am rich", since that occurrence of "I" would refer to the speaker. Nor can the speaker express it via "John believes that John is rich", since this allows for an interpretation under which John believes that someone named 'John' (and who is not necessarily himself) is rich. Most importantly, John might believe that someone named 'John' is rich yet fail to believe that he himself is rich, an observation that was adapted by John Perry for his theory of the "essential indexical". Note that in the expression denoting the practition *John to pay his debts*, 'his' is a quasi-indicator. And in "John said that he would read that book there and then", the terms 'he', 'there', 'that', and 'then' (and, arguably, 'would') are all quasi-indexical, since, presumably, John actually said, "I will read this book here and now". The theory of quasi-indicators is also related to the notion of belief "*de se*" (i.e., beliefs about oneself) discussed by David Lewis, to the linguistic theory of "logophoric" pronouns (quasi-indexical lexical items that are found in some natural languages), and to the literary theory of "free indirect discourse" (used in narrative text to directly represent a character's indexical thoughts, by expressing them via quasi-indicators without their antecedents); and it has been used in artificial-intelligence research in knowledge representation. (For further reading, see: "'He': A Study in the Logic of Self-Consciousness" (1966), "Indicators and Quasi-Indicators" (1967), "On Knowing (or Believing) that One Knows (or Believes)" (1970), *Thinking, Language, and Experience* (1989), and (posthumously published) *The Phenomeno-Logic of the I* (1999).)

Castañeda's *guise theory* is a theory of the mechanisms of reference and of Kantian "phenomena"—of the world as it is presented to us in appearance. The theory arose primarily from two converging sources (among others, such as aspects of his theories about quasi-indicators and practitions). One source was Castañeda's exploration of the consequences of one of the several logically possible responses to Frege's paradox of reference, namely, denying that the copula in sentences such as "The President of the US is the Commander-in-Chief" or "Oedipus's father was the previous King of Thebes" must be strict identity. Castañeda interpreted the copula using a family of weaker relations (including "consubstantiation" and "consociation") that hold among objects of thought (which he called "guises"). The other source was the observation that thinking about truth and reality (such as believing that Plato was a philosopher, or thinking about Plato) is indistinguishable from (i.e., is the same kind of act as) thinking about falsehood and fiction (such as believing that Santa Claus brings presents or that Plato was a computer scientist, thinking about Santa Claus). Instead of saying that such acts of thinking differed in that they had different kinds of objects (true vs. false, existing vs. non-existing), Castañeda asked what a theory would look like that treated both kinds of objects of thought on a par, and how real objects might be constructed (see below) from objects of thought (guises) that are neutral with respect to reality and non-reality. Roughly, guises are items corresponding to sets of properties; they are both intensional (i.e., non-extensional) and intentional (i.e., objects of thought); some are perceivable, others only conceivable; they can be incomplete (e.g., the guise *the red square* is constituted by only two properties, whereas a really existing red square would have many more properties); and they can be inconsistent (e.g., the guise *the round square*). Guise theory is a fully intensional theory with one type of object (guises), one type of property (in contrast to theories,

such as that of Terence Parsons, that distinguish between “nuclear” and “extranuclear” properties), and two modes of predication (“internal” and “external”, of which there are several varieties). More precisely, there are (a) properties (for example, *being round*, *being square*, *being blue*, *existing*, etc.), (b) sets of properties (called ‘guise cores’; e.g.,  $\{being\ round,\ being\ square\}$ ), and (c) an “individuating operator”,  $c$ , which is an ontic counterpart of the definite article that produces guises from guise cores (e.g.,  $c\{being\ round,\ being\ square\}$  is the guise *the round square*). Guises can be understood, roughly, as things-under-a-description, as “facets” of (physical and non-physical) objects, as “roles” that objects play—in general, as intentional objects of thought. There are “internal” and “external” modes of predication: In general, a guise  $c\{\dots F \dots\}$  is-internally  $F$ ; i.e., a guise whose core contains the property  $F$  thereby has  $F$  internally predicated of it, and so one can say that an  $F$  thing “is”  $F$ . E.g., the guise  $c\{being\ round,\ being\ square\}$ —i.e., *the round square*—is-internally only round and square. The two guises *the tallest mountain* and *Mt. Everest* (e.g.,  $c\{being\ a\ mountain,\ being\ taller\ than\ any\ other\ mountain\}$  and  $c\{being\ named\ 'Mt.\ Everest'\}$ ) are related by an external mode of predication called “consubstantiation” ( $C^*$ ). Castañeda originally conceived of consubstantiation as an equivalence relation within the domain of actual objects (though he may have weakened this requirement in later writings). He used it to analyze (1) external predication, (2) co-reference, and (3) existence: Let  $a = c\{\dots F \dots\}$  be a guise (i.e., a guise containing in its core, possibly among other properties, the property  $F$ ), and define  $a[G]$  as  $c\{\dots F \dots\} \cup \{G\}$  (i.e., as the guise whose core consists of all of  $a$ ’s core properties and also property  $G$ ). Then (1)  $a$  is-externally  $G$  (in one sense) if  $C^*(a, a[G])$  (i.e.,  $G$  can be predicated externally of  $a$  if  $a$  and  $a[G]$  are consubstantiated). E.g., ‘the Morning Star is a planet’ is true because  $C^*(c\{being\ the\ last\ object\ seen\ in\ the\ morning\ before\ the\ Sun\ rises,\ being\ star-like\ in\ appearance\}, c\{being\ the\ last\ object\ seen\ in\ the\ morning\ before\ the\ Sun\ rises,\ being\ star-like\ in\ appearance,\ being\ a\ planet\})$ ; i.e., the two guises, *the Morning Star* and *the Morning Star that is a planet*, are consubstantiated. (2) Guise  $a$  “is the same as” guise  $b$  if and only if  $C^*ab$  (i.e.,  $a$  and  $b$  are consubstantiated). E.g., ‘the Morning Star is the Evening Star’ is true because  $C^*(c\{being\ the\ last\ object\ seen\ in\ the\ morning\ before\ the\ Sun\ rises,\ being\ star-like\ in\ appearance\}, c\{being\ the\ first\ object\ seen\ in\ the\ evening\ after\ the\ Sun\ sets,\ being\ star-like\ in\ appearance\})$ ; i.e., the guise *the Morning Star* and the guise *the Evening Star* are consubstantiated. And (3)  $a$  (“really”) exists if and only if, for some guise  $b$ ,  $C^*ab$ . Moreover, a real object (an infinitely-proprietyed, multi-faceted “Leibnizian individual”) was at the “apex” of a semi-lattice of consubstantiated guises. Because of the internal and external modes of predication, it is not a contradiction to say that the guise *the existing round square* both exists and does not exist: It is-internally existing, but it is not consubstantiated with any guise (hence does not “really”—or externally—exist). Another external mode of predication is “consociation” ( $C^{**}$ ). This is an equivalence relation that holds between guises that a mind has “put together”, i.e., between guises in a “belief space”. E.g., the guise *Hamlet* is consociated with the guise *Prince of Denmark*— $C^{**}(Hamlet,\ the\ Prince\ of\ Denmark)$ —because “they” are the “same” character in Shakespeare’s play. (Perhaps it is better to say that they are two guises of that character.) Other external modes of predication include “transubstantiation” (to handle identity across time) and “transconsociation” (to handle identity across different works of fiction). Guise theory has had an influence on artificial-intelligence research on intensional knowledge representation. (For further reading, see “Thinking and the Structure of the World” (1972), “Identity and Sameness” (1975), “Perception, Belief, and the Structure of Physical Objects and Consciousness” (1977), “Fiction and Reality” (1979), “Reference, Reality, and Perceptual Fields” (1980), and *Thinking, Language, and Experience* (1989).)

Also noteworthy are Castañeda’s investigations into the history of philosophy—especially his writings on Plato and Leibniz—and his (related) meta-philosophical distinction between “Athenian” and “Darwinian” history of philosophy: On the Athenian approach, one views (or attempts to view) a philosopher’s writings as a unitary system, with the inevitable difficulty of trying to reconcile inconsistencies. On the Darwinian approach—which Castañeda favored—a philosopher’s writings are viewed as different (possibly inconsistent) theories struggling for survival, each of which must be treated

on its own merits. He also developed a more general meta-philosophical stance: Philosophers should consult as much data as possible and construct as many comprehensive philosophical theories as possible. Philosophical analysis should be a helpful endeavor: Philosophers should not attack each other's views but should ask questions (i.e., provide more data) in order to help others develop their own theories. These theories, then, can be compared and generalized. (For further reading, see: "Plato's *Phaedo* Theory of Relations" (1972), "Leibniz's Concepts and Their Coincidence *Salva Veritate*" (1974), "Individuation and Non-Identity" (1975), and *On Philosophical Method* (1980).)

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### **William J. Rapaport**

*Department of Computer Science & Engineering, Department of Philosophy,  
and Center for Cognitive Science  
State University of New York at Buffalo, Buffalo, NY 14260  
rapaport@cse.buffalo.edu  
<http://www.cse.buffalo.edu/~rapaport>*