Montague, Richard (1930-71)

Richard Montague was a logician and philosopher whose seminal works on language (Montague 1970a, 1970b, 1973) founded the theory known after his death as Montague grammar, one of the main starting points for the field of formal semantics.

Montague was born September 20, 1930 in Stockton, California and died March 7, 1971 in Los Angeles. At St. Mary's High School in Stockton he studied Latin and Ancient Greek. After a year at Stockton Junior College studying journalism, he entered the University of California, Berkeley in 1948, and studied mathematics, philosophy, and Semitic languages, graduating with an A.B. in Philosophy in 1950. He continued graduate work at Berkeley in all three areas, especially with Walter Joseph Fischel in Arabic, with Paul Marhenke and Benson Mates in philosophy, and with Alfred Tarski in mathematics and philosophy, receiving an M.A. in mathematics in 1953 and his Ph.D. in Philosophy in 1957. Alfred Tarski, one of the pioneers, with Frege and Carnap, in the model-theoretic semantics of logic, was Montague's main influence and directed his dissertation (Montague 1957). Montague taught in the UCLA Philosophy Department from 1955 until his death.

Montague quickly became a major figure in mathematical logic, with contributions to proof theory, model theory, axiomatic set theory, and recursion theory. He applied logical methods to a number of problems in philosophy, including the philosophy of language, and co-authored the logic textbook Kalish and Montague (1964). He directed three UCLA Ph.D. dissertations (Cocchiarella 1966, Grewe 1965, Kamp 1968). A fourth, Gallin (1972), revised and published as Gallin(1975), was completed at Berkeley after Montague's death. Michael Bennett would also have been Montague's dissertation student; his dissertation on Montague grammar (Bennett 1974) was supervised by David Kaplan and Barbara Partee.

Of most significance for linguistics was Montague's work on semantics. Building on his development of a higher-order typed intensional logic with a possible-worlds model-theoretic semantics and a formal pragmatics incorporating indexical pronouns and tenses (Montague 1968, 1970c), Montague turned in the late 1960's to the project of "universal grammar". For him that meant developing a philosophically satisfactory and logically precise account of syntax, semantics, and pragmatics, encompassing both formal and natural languages. Montague's idea that a natural language like English could be formally described using logicians' techniques was a radical one at the time. Most logicians believed that natural languages were not amenable to precise formalization, while most linguists doubted the appropriateness of logicians' approaches to the domain of natural language semantics. At the time of Montague's work, Chomskian generative syntax was well established, and the "linguistic wars" between generative semantics (Lakoff, Ross, McCawley, Postal) and interpretive semantics (Jackendoff, with the support of Chomsky) were in full swing. In introductions of Montague's work to linguists, including (Partee 1973, 1975) and Thomason's extended introduction to (Montague 1974), it was argued that Montague's work offered the potential to accommodate some of the best aspects of both of the warring approaches, with some added advantages.

It was the short but densely packed "PTQ" (Montague 1973) that had the most impact on linguists and on the subsequent development of formal semantics. "Montague grammar"

has often meant PTQ and its extensions by linguists and philosophers in the 1970's and 80's. But it is the broader algebraic framework of "UG" ("Universal Grammar", Montague 1970b) that constitutes Montague's theory of grammar. Crucial features of that theory include the truth-conditional foundations of semantics, the algebraic interpretation of the principle of compositionality, and the power of a higher-order typed intensional logic.

Before Montague, semanticists focused on the explication of ambiguity, anomaly, and "semantic relatedness"; data were often subjective and controversial. The introduction of truth-conditions and entailment relations as core data profoundly affected the adequacy criteria for semantics, and led to a great expansion of semantic research. While some cognitively-oriented linguists reject the relevance of truth conditions and entailment relations to natural language semantics, many today seek an integration of cognitive and formal perspectives by studying mind-internal intuitions of mind-external relations such as reference and truth-conditions.

The Fregean principle of compositionality, that the meaning of any complex expression is a function of the meanings of its parts and of the way they are syntactically combined, was central to Montague's theory and remains central in formal semantics. In UG, Montague formalized it as the requirement that there be a homomorphism between a syntactic algebra and a semantic algebra. The nature of the

elements of both the syntactic and the semantic algebras is open to variation; what is constrained by compositionality is the relation of the semantics to the syntax.

The richness of Montague's logic was crucial for the possibility of a compositional semantic interpretation of independently motivated syntactic structure. This was well illustrated in PTQ, where a typed higher-order logic with lambda-abstraction made it possible to interpret noun phrases (NPs) like *every man, the man, a man* uniformly as semantic constituents ("generalized quantifiers"), an idea simultaneously advocated by Lewis (1970). PTQ also contained innovative treatments of quantifier scope and binding, intensional transitive verbs, phrasal conjunction, adverbial modification, and more. Montague's type theory introduced to linguists Frege's strategy of taking function-argument application as the basic "semantic glue" for combining meanings, and gave new significance to categorial grammar (Bach et al. 1987).

Montague's logic was an intensional logic, developing Frege's distinction between *sense* and *reference* and Carnap's distinction between *intension* and *extension*, using possible-worlds semantics to treat the phenomenon of referential opacity, pervasive in belief-sentences and many other constructions.

Details of Montague's analyses have in many cases been superseded, but in overall impact, PTQ was as profound for semantics as Chomsky's *Syntactic Structures* was for syntax. Bach (1989) summed up their cumulative innovations thus: Chomsky's Thesis was that English can be described as a formal system; Montague's Thesis was that English can be described as an *interpreted* formal system.

Feferman and Feferman (2004) offer vivid glimpses into Montague's relation to Tarski, his life (he was an accomplished musician, became wealthy in real estate, and was a member of the homosexual community), and his death, an unsolved murder.

References

More about Montague and Montague grammar can be found in works mentioned above and (Cocchiarella 1981, Dowty 1979, Dowty et al. 1981, Furth et al. 1971, Gamut 1991, Janssen 1983, Link 1979, Partee 1976, 1997, Portner and Partee 2002, Rodman 1972). The term "Montague grammar", whose first published appearance is in Rodman, ed., (1972), was added to the Oxford English Dictionary in 2002.

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1846-08-17 Commodore Robert F Stockton, US Navy, annexes California. 1847-01-09 1st San Francisco newspaper published (California Star). 1847-01-16 John C. Frémont is appointed Governor of the new California Territory. 1886-02-08 Charlie Ruggles, American actor (Bringing Up Baby, The Patchwork Girl of Oz), born in Los Angeles, California (d. 1970). 1886-12-20 Hazel Hotchkiss Wightman, American tennis player (US Nat C'ship 1909-11, 19), born in Healdsburg, California (d. 1974). Nevertheless, he has to be seen as one of the most influential designers of his generation. Apr 22, 2019 11:05 AM. 4. 0. Answers · 4. 10 = the same, because we are comparing with the text that is coming. The same detail to his surroundings as to his clothes. 11 =as this is a common comparator we use, in this type of sentence. "as" = adverb used in comparisons to refer to the extent or degree of something. It is what Natives instinctively use and are taught to use by repeated example and constant hearing from birth. So to a native born English speaker it is not as difficult to select this option as it is for second language learners. April 22, 2019. 1. 1. 10 = same 11= as. April 22, 2019. 0. Saint Mary's High School (SMHS), founded in 1876, is a Roman Catholic, co-educational, college preparatory school in Stockton, California. The school is under the canonical jurisdiction of the Diocese of Stockton and sponsored by the Salesian order of the Oblates of St. Francis de Sales priests and brothers (Toledo–Ohio Province). The school is a member of the College Board and is accredited by the Western Association of Schools and Colleges and by the Western Catholic Education Association. Start studying Passive quiz. Learn vocabulary, terms and more with flashcards, games and other study tools. The politician Winston Churchill was born in a toilet. Penguins__ (find) a) at the South Pole b) at the North Pole c) in Alaska. are found. Penguins are found at the South Pole. The Lord of the Rings films (direct) by a) Steven Spielberg b) James Cameron c) Peter Jackson. were directed.