The Theory and Substance of Montague Grammar

It was the short but densely packed PTQ ("the proper treatment of quantification in ordinary English," Montague 1973) that had the most impact on linguists and on the development of formal semantics. Montague grammar has often meant PTQ and its extensions by linguists and philosophers in the 1970s and 1980s. But it is the broader algebraic framework of UG ("Universal Grammar," Montague 1970) 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 a resolution of meaning externalism and internalism by studying mind-internal intuitions of mind-external relations, such as reference and truth conditions.

In UG, Montague formalized the Fregean principle of compositionality as the requirement of 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, making compositionality relevant to representational and conceptual theories of meaning as it is to model-theoretic semantics.

The richness of Montague's logic made possible a compositional semantic interpretation of independently motivated syntactic structure (see AUTOMONY OF SYNTAX), which was key in overcoming the problems that underlay the linguistic wars. 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, and the man uniformly as semantic constituents (generalized quantifiers), an idea simultaneously advocated by David Lewis (1970). PTQ also contained innovative treatments of QUANTIFICATION and BUNDLING, 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, giving renewed significance to CATEGORIAL GRAMMAR.

Montague's logic was an Intensional logic, developing Gottlob Frege's distinction between sense and reference and Rudolf Carnap's distinction between INTENSION AND EXTENSION, using possible world semantics to treat the phenomenon of referential opacity pervasive in PROPOSITIONAL ATTITUDE sentences and many other constructions (see INTENTIONALITY).

Details of Montague's analyses have been superseded, but in overall impact, PTQ was as profound for semantics as Noam Chomsky's Syntactic Structures was for syntax. Emmon Bach (1989, 8) 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.

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WORKS CITED AND SUGGESTIONS FOR FURTHER READING


MOOD

Mood forms part of the nonspatial setting of an event, alongside MODALITY, reality status, TENSE, ASPECT, and EVIDENTIALITY. Mood refers to a type of SPEECH-ACT, with three basic choices. Many languages have a special verb form marking commands, which is known as imperative mood. In Latin, the second person imperative dic ("you say") is different from the statement dicit, "you say." Declarative mood (sometimes called indicative) is used in statements. Many more categories tend to be expressed in declarative clauses than in either interrogative or imperative. Interrogative mood occurs in questions as in in West Greenlandic where every question is marked with a special suffix on verbs (Fortescue 1984, 6-9, 287-88).

In traditional uses, the notion of mood applied to sets of inflectional verb forms. The Western classical tradition, based on Greek and Latin, identified three moods: indicative, subjunctive, and imperative, which only partially correspond to the aforementioned three speech-acts. Further meanings associated with mood include optative and subjunctive (see Lyons 1977, 725-848; Sackord and Zwicky 1985). Some scholars consider conditional modality - which marks a clause in a conditional sentence - and
Mood

subjective modality – typically, a form expressing desire or uncertainty – on a par with moods. This is problematic since the distinction between moods as speech-acts and clause types (which include division between main and subordinate clauses, where conditional forms would be used) is blurred. The introduction of interrogative mood into the system is largely due to the existence of languages that have an overtly marked verbal paradigm used for the interrogative speech-act, as in a number of languages of Amazonia. Further formal distinctions between moods as clause types involve prosody and consistent order.

Both imperative and interrogative are characterized by a typical intonation contour. Imperatives often have fewer categories than corresponding declaratives. The English imperative is perhaps the simplest form in the language. It consists of the base form of the verb without any tense indication, whose subject – typically, the addressee – can be and often is omitted. In contrast, many languages of North and South America and Siberia distinguish delayed versus immediate imperatives and proximal versus distal imperatives. The universal property of imperatives is having the second person as subject, of a transitive or intransitive verb (Dixon 1984, 131–42). A prototypical imperative is agentive, and this is why in numerous languages imperative cannot be formed on passive and stative verbs. Other moods do not have such restrictions. Imperatives directed at the first person (e.g., Let’s go), also known as hortatives, are often expressed differently from second person imperatives. Imperatives directed at the third person (e.g., Long live the king), also known as jussives, may share similarities with first person imperatives, or have properties different from all other imperative forms. Further, minor moods include exclamative (as in That’s so tacky) and expressive types, such as imprecatives (or curses, often cast as commands but without a command meaning).

Mood interacts with modality, understood as a means used by the speaker to express his or her "opinion or attitude towards the proposition that the sentence expresses or the situation that the proposition describes" (Lyons 1977, 452). Expressions of probability, possibility, and belief are epistemic modalities, and expressions of obligation are deontic modalities. In English, these meanings are conveyed by modal verbs, e.g., might come or he must come (epistemic), he must come (deontic) (see Palmer 1986, 51–125; Jespersen 1924, 320–1). Further modal distinctions include desiderative (unachievable desire), optative (achievable desire), conditional, hypothetical, potential, pur- pose, and apprehensive ("test"). Languages with a rich verbal morphology may have special marking for each distinction. An alternative (rare) cover term for both mood and modality is mood (Chung and Timberlake 1985).

Some languages have an affix with a general meaning of "irrealis" covering possibility, futurity, negative statements, and commands. These languages have the category of reality status, the grammaticalized expression of an event's location either in the real world or in some hypothetical world (see Elliott 2000, for its cross-linguistic validity). In Maung, an Australian language, statements in the present, past, and future are marked with "realis" suffixes. Potential meanings "I can do X" are expressed with irrealis, as are commands. In Manam, an Oceanic language, irrealis covers future, probabilistic, and counterfactual statements, positive commands, and habitual actions. But in Yuman languages and in Caddo, from North America, realis marks statements and commands, while irrealis expresses future, possibility, and condition. This shows that the realis–irrealis distinction is language specific and that it is distinct from mood (see Mithun 1999, 178–80). Mood, modality, and reality status are distinct from evidentiality (q.v.) whose primary meaning is information source.

Mood is often an obligatory inflectional category of the verb, marked with suffixes (suffixes or prefixes, rarely infixes); it is never expressed derivationally. In languages of an isolating profile, mood can be expressed through particles. Modalities are not obligatory and, thus, do not constitute part of an inflectional paradigm. Modal verbs express modalities rather than moods (this is the case in English and many other familiar Indo-European languages).

Forms of mood marking can develop additional meanings overlapping with modalities. Imperative forms can be used to express optative and conditional, while indicative forms may develop overtones of certainty (associated with epistemic modality). Indicative forms – for instance, future – can be used as command strategies, with differences in illocutionary force.

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WORKS CITED AND SUGGESTIONS FOR FURTHER READING


MORPHEME

This term has been used in two ways: In Leonard Bloomfield's sense, a morpheme is a minimal meaningful form; in Zellig Harris's and Charles F. Hockett's later usage, a morpheme is an abstract unit of analysis realized by a morph (a minimal meaningful form) or by a set of synonymous morphs in complementary distribution. In Bloomfield's sense, the plural suffixes -s and -en are distinct morphemes; in the latter sense, they are distinct morphs realizing the same morpheme. The term is not always used consistently in morpheme-based approaches to...