Modality

Logical **Modals** include, but are by no means limited to, the **Modal Auxiliary Verbs**. These verbs have a number of syntactic and morphological peculiarities that match their semantic oddities; for instance, in English they must be the first auxiliary in the verb phrase (which effectively prohibits double modal constructions); they take no agreement morpheme in the third person singular; and they have no past participle. There are remnants of old strong preterites in all cases but *must*, which is itself an old preterite, so they mostly occur in pairs, but the "preterite" forms are almost always differentiated in meaning from the "present" forms enough to be considered separate verbs, and they occur as past tenses only in a small fraction of their uses.

The English modals, grouped as Potential and Necessity modals, and also as "present" and "preterite", are:

Potential ("Diamond")		Necessary ("Square")	
present	preterite	present	preterite
may	*might*	*shall* †	*should*
can	*could*	*will*	*would*
			must

Logical modals also include the regular paraphrases of the modal auxiliaries:

ought to [ɔ́ɾə]	*have to* [hǽftə]	*(be) going to* [gə́ŋə]	*want to* [wǎnə]
(be) able (to)	*(be) possible (that)*	*(be) about (to)*	*(be) willing (to)*

and a number of other lexical items, not all verbs, some derived, some not:

maybe	*probable*	*necessary*	*perhaps*	*know (how)*
possibly	*probably*	*necessarily*	*likely*	... etc.

not to mention the derivational suffix *-able/-ible*.

Besides the classification into Diamond and Square groups, modals may also be classified in their uses as either **Deontic** or **Epistemic**. Deontic modal (sometimes called "**Root**" modal) uses refer to social obligation (for Square modals) or permission (for Diamonds) — in effect, they are two-place predicates, describing some relation between a person and an action that person might take. Epistemic modal uses, on the other hand, are one-place predications, merely relating some abstract sense of possibility or necessity.

A special case is the "ability" sense of *can*, which is also two-place, but does not deal with permission. This is called the **Alethic** use of *can*.

Modality

All English modal auxiliary verbs are ambiguous between deontic and epistemic senses, though they can usually be disambiguated in context, and there are significant restrictions on some of them. In addition, can is ordinarily ambiguous only between its alethic and deontic sense; its epistemic sense can normally occur only in negative-polarity environments. Examples:

Deontic	Epistemic	Ambiguous
You *may* leave now.	You *may* be right.	He *may* leave soon.
†You *might* try it out.	You *might* be right.	
You *can't* leave yet.	This *can't* be the place.	*Can* you do that? (Alethic)
He said you *could* leave.	*Could* this be right?	*Could* you do that? (Alethic)
He says he *won't* eat it.	It *won't* rain today.	He *won't* hand it in.
†*Would* that it were true!	That *would* be nice.	*Would* you like that?
I *should* go home now.	It *should* be melted now.	He *should* be home.
You *must* leave now	This *must* be the place.	He *must* leave soon.

As can be seen, there are significant interactions between negation and modality; indeed, the grammatical category of **mood** (or **mode**) is based on the interplay of modals and negation, particularly in the case of counterfactuality.

There are canonical negative contractions of some modals in English:

can't   couldn't   won't   wouldn't   shouldn't   mustn't

and very interesting differences in meaning between (for instance):

>*This may not be the place.* and *This can't be the place.*
>(cf. *You may not leave yet.* and *You can't leave yet,,* which mean the same)
>or *You don't have to do it.* and *You must not do it.*

Not to mention differences between:

>*Bill should be home by now.* and *Bill must be home by now.*
>or *He shouldn't be home yet.* and *He must not be home yet.*

which have to do with varieties of epistemic reasoning.

Finally (though this does not by any means exhaust the weirdities of modals), there are such things as **Modal Polarity Items**, which can occur only in the scope of a Diamond-type modal. For instance,

He said he <u>couldn't</u> *afford* a new car	*He said he *afforded* a new car.
Anybody <u>can</u> do that	*Anybody* did that.
You <u>can</u> *tell* that he's lying.	*You *told* that he's lying.
He <u>can't</u> *tell shit from Shinola.*	*He *told shit from Shinola.*
I <u>couldn't</u> *fathom* what she was saying.	*I *fathomed* what she was saying.

---- Note that these last two require a **Negative** as well as a **Modal**.