vertical mode   **1**

`vertical mode.`   When TEX is assembling either a vbox or the main vertical list from which pages are derived, it is in one of two *vertical modes*: ordinary vertical mode for assembling the main vertical list, and internal vertical mode for assembling vboxes. Whenever TEX is in a vertical mode its stomach (see "anatomy of TEX", p. '`\anatomy`') is constructing a vertical list of items (boxes, glue, penalties, etc.). TEX typesets the items in the list one below another, top to bottom.

A vertical list can't contain any items produced by inherently horizontal commands, e.g., `\hskip` or an ordinary (nonspace) character. [1]

- If TEX is assembling a vertical list in ordinary vertical mode and encounters an inherently horizontal command, it switches to ordinary horizontal mode.
- If TEX is assembling a vertical list in internal vertical mode and encounters an inherently horizontal command, it complains.

Two commands that you might at first think are inherently vertical are in fact inherently horizontal: `\valign` (p. '`\valign`') and `\vrule` (p. '`\vrule`'). See page 283 of *The TEXbook* for a list of the inherently horizontal commands.

It's particularly important to be aware that TEX considers an ordinary character other than a space character to be inherently horizontal. If TEX suddenly starts a new paragraph when you weren't expecting it, a likely cause is a character that TEX encountered while in vertical mode. You can convince TEX not to treat that character as inherently horizontal by enclosing it in an hbox since the `\hbox` command, despite its name, is neither inherently horizontal nor inherently vertical.

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[1] TEX *ignores* any space characters that it encounters while it's in a vertical mode.