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Section 4: Revisions to Execution Environment Utilities

4.5 cd — Change working directory

Editor's Note: The following rationale will be added to E.4.5, but is kept here with `cd` *for this draft:*

cd Rationale. *(This subclause is not a part of P1003.2b)*

Some historical shells, such as the KornShell, took special actions when the directory name contained a dot-dot component, selecting the logical parent of the directory, rather than the actual parent directory (i.e., it moved up one level toward the / in the pathname, remembering what the user typed, rather than performing the equivalent of the C-language call

```
chdir("..");
```

In such a shell, the following commands would not be equivalent for all directories:

```
cd .. && ls              ls ..
```

This behavior is not consistent with the definition of dot-dot and is not allowed by this standard, although it would be allowed as an extension if triggered by an environment variable or command-line option.

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4.6 `chgrp` — Change file group ownership

⇒ **4.6.3 `chgrp` Options.** *Add the following sentence to the end of the paragraph describing the* –R *option:*

When a symbolic link is encountered in the file hierarchy, `chgrp` shall modify the file referenced by the link and shall continue with the other files in the directory containing the link, not attempting to follow the link to another portion of the file hierarchy.

Editor's Note: The following rationale will be added to E.4.6, but is kept here with `chgrp` *for this draft:*

`chgrp` Rationale. *(This subclause is not a part of P1003.2b)*

When `chgrp` is given a symbolic link as a *file* operand, it changes the file resolved from the link. This is a consequence of the dependence on the *chown* () functionality, per the Description. The POSIX.1 {8} *chown* () function does not modify the link itself [and provides no *lchown* () function that does that]. However, in traversing directories for the –R option, it does not follow links into other parts of the hierarchy. This is based on historical practice. Some systems provide a –h option that does modify the link itself and this is a valid extension, but it has been omitted from POSIX.2 because POSIX.1 {8} does not support it. No known systems cause –R to follow symbolic links; this functionality is possible with

```
find ... -follow ... | xargs chgrp ...
```

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