differences between them; however, many scholarly sources agree that when the last short line of a paragraph is isolated at the *top* of a new column or page, that isolated line is called a **widow**, as shown in Figure 4-32a. When the first line of a paragraph is isolated at the *bottom* of a column or page, as in Figure 4-32b, that isolated line is called an **orphan**.

There is a lack of consensus regarding the correct term for a single word or two, left alone at the *bottom* of a paragraph as in Figure 4-32c. Both the terms, **widow** and **orphan**, have been used to describe this phenomenon; but some scholarly sources indicate that neither term is actually applicable.

Regardless of the specific terminology, these isolated dangling words and lines of text can be problematic because they reduce readability by disrupting reading rhythm and creating awkward negative spaces on the page. Such spacing issues can be avoided by adjusting the tracking, changing the line length, or by manually breaking other longer lines to redistribute the text.

When a paragraph ends in a single last line at the top of a new column or page, that line is called a widow. When a paragraph begins with a first line at the bottom of a column, that lone line is called an orphan. These terms are also used to describe a short last line of a paragraph that has

words.
Widows and orphans are problematic because they reduce readability by disrupting reading rhythm and by creating awkward negative spaces on the page. Both widows and orphans should be avoided by changing line length, or by breaking longer lines.

widow

figure 4-32a Widow. © *2016 Cengage Learning®.*

When a paragraph ends in a single last line at the top of a new column or page, that isolated line is called a widow. When a paragraph begins with a single first line at the bottom of a column, it is called an orphan. These terms are used to describe a last line.

The main reason why

widows and orphans are problematic because they reduce readability by disrupting reading rhythm and by creating awkward negative spaces on the page. Both widows and orphans should be avoided by changing line length, or by manually breaking other longer lines to redistribute the text.

orphan

figure 4-32b Orphan.
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When a paragraph ends in a single last line at the top of a new column or page, that isolated line is called a widow. When a paragraph begins with a single first line at the bottom of a column or page, that isolated line is called an orphan. However, these two terms are often used interchangeably, and are also commonly used to describe a very short last line of a paragraph that has only one or two words.

figure 4-32c Some scholarly sources call a very short last line at the *bottom* of a paragraph a widow; some call it an orphan; some indicate neither term to be applicable.
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Use of Negative Spaces in a Layout

When arranging elements in a layout, a designer must consider not only the objects to be placed, but also the negative spaces that will surround those objects. Creating attractive negative spaces can give a design a sense of airiness and make it more inviting.

On the other hand, a design with awkward negative spaces will convey a sense of disharmony and can result in a less readable design. This doesn't mean that negative spaces always have to be attractive. Sometimes designers purposely use awkward negative spaces to evoke discomfort in their viewers. As always, the designer must negotiate an appropriate balance between readability and style, based on the goals and intended audience of the specific design.

When a designer is arranging letterforms, the shapes and sizes of negative spaces become particularly important to both legibility and readability. Decisions regarding *letterspacing, tracking, kerning, word spacing, leading,* and *paragraph demarcation* heavily affect the readability of any design that includes text.

Letterspacing, Tracking, and Kerning

A **letterspace** is the space between two letters in a word. The terms tracking and kerning describe specific ways that letterspaces can be modified. The term **letterspacing** is often used to generally describe the collective letterspaces within a string or block of text, but can also be used interchangeably with the term tracking.

widow the last one or two words of a paragraph, isolated at the bottom of a page or at the top of a new column or page

orphan the first line of a paragraph, isolated at the bottom of a column or page

letterspace the space between two letters in a word

letterspacing (tracking) the collective letterspaces within a string or block of text; adjusting the distance between characters in a string or block of text

Tracking happens when letterspaces are consistently increased or decreased within a string of text. Typefaces can be tracked to have wide letterspacing or narrow letterspacing. Moderately widening and shortening letterspacing can be useful to adapt typefaces to accommodate very long or short measures of text; however, both can be difficult to read in long passages.

W i d e n e d   l e t t e r s p a c i n g
s u c h   a s   t h i s   c a n   b e   d i f -
f i c u l t   t o   r e a d   b e c a u s e
w h e n   l e t t e r s   a r e   t o o   f a r
a p a r t ,   w o r d   r e c o g n i t i o n
b e c o m e s   a   c h a l l e n g e .

figure 4-33a Text block set with excessive letterspacing. © *2016 Cengage Learning®.*

Shortened letterspacing such as this is also difficult to read because the diminished negative spaces between the letters may strain the eyes and make word recognition more difficult.

figure 4-33b Text block set with cramped letterspacing. © *2016 Cengage Learning®.*

Usually an average amount of letterspacing will be most readable and the most legible, but most important is that letterspacing be consistent. Inconsistent letterspacing will confuse readers as to which letters are in which words and will create an inconsistent visual texture. Sometimes it is necessary to track or kern adjacent letters to make the letterspacing appear more even.
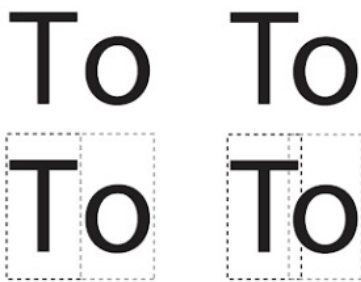
Kerning happens when the letterspace between two specific characters is altered. Kerning is necessary when adjacent letterforms fit together poorly, creating an awkwardly large or small letterspace. For example, in Figure 4-34 the dotted and dashed boxes show how the letters on the right have been moved closer together and are actually in each other's space. Note how the word **To** looks more awkward when it is not kerned (on the left). This is because the shapes of those particular letters leave a great deal of negative space between them. Kerning them so the letters invade each other's space actually makes them easier to read as one word.

There are a number of letter combinations, in addition to the **To** combination, that you'll want to keep your eye on, to decide on a case-by-case basis whether kerning is required. As a rule of thumb, be aware that you may need to kern letter pairs that include rounded characters like **O**, **o**, and **e**; triangular characters, like **A**, **T**, **V**, and **v**, or narrow characters, like **I**, **i**, **L**, and **l**. This is simply because these characters are likely to be surrounded by a lot of negative space that may throw off the visual balance of the letter pairs. Charts of most common uppercase, lowercase, and combination upper/lowercase kerning pairs are shown in Chapter 8 (see figures 8-55a, b, and c).

Look closely at the spacing of the letters in the logos and headers that you see around you each day. You will find that many have been carefully kerned to create a smooth combination of negative and positive space. Figure 4-35 shows an example in which the letters have been kerned to an extreme, so that the characters fit together like puzzle pieces.

figure 4-34 Type that isn't kerned (left) and type that is kerned (right).
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tracking adjusting the distance between characters in a string or block of text

kerning adjusting the letterspace between two adjacent characters of type