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# Ms. Particular Presents: With

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“With” is another one of those four-letter words that can get you into a lot of trouble with Ms. Particular.

**What does the following sentence mean?**

**“We will investigate  $a$  with  $b$ .”**

**Three different interpretations are possible:**

**“We will use the  $b$  method or tool to study  $a$ .”**

**“We will carry out some experiments, where  $b$  will be investigated along with  $a$ .”**

**“We will investigate only the subset of  $a$  having  $b$  features.”**

Scientists often use “with” as a sloppy substitute for the more precise “having” or “using.”

Using an all-purpose “with” indiscriminately may lead to an ambiguous statement that is difficult for a reader to interpret correctly.

**Sometimes the meaning is clear from the context, but sometimes it's *not***

**“We show that solitons undergo a strong blueshift in fibers *with* a dispersion landscape that varies along the direction of propagation.”**

**Never use “with” when you mean “having” or “using”**

In this example, does “with a dispersion landscape” describe what kind of “fibers” were investigated, or is the dispersion landscape the method that was used to show how solitons undergo the blueshift? Or is the dispersion landscape a characteristic of the blueshift?

Every time you see “with,” ask yourself, does this “with” really mean “along with,” or does it mean “having”? Or “using”? And if it does mean “with,” is it in the right place?

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