# Writing exercise 05: Active Voice and Verb Tense

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### Excerpts from Strunk & White: Elementary Principles of Composition [4th ed., pgs. 15-17]

### **14. Use the active voice.**

### The active voice is usually more direct and vigorous than the passive:

### I shall always remember my first visit to Boston.

### This is much better than

### My first visit to Boston will always be remembered by me.

### The latter sentence is less direct, less bold, and less concise. If the writer tries to make it more concise by omitting "by me,"

### My first visit to Boston will always be remembered,

### it becomes indefinite: is it the writer or some undisclosed person or the world at large that will always remember this visit?

### This rule does not, of course, mean that the writer should entirely discard the passive voice, which is frequently convenient and sometimes necessary.

**21. In summaries, keep to one tense.**

…the writer should use the same tense throughout. Shifting from one tense to another gives the appearance of uncertainty and irresolution.

In notebooks, in newspapers, in handbooks of literature, summaries of one kind or another may be indispensable, and for children in primary schools retelling a story in their own words is a useful exercise. But in the criticism or interpretation of literature, be careful to avoid dropping into summary. It may be necessary to devote one or two sentences to indicating the subject, or the opening situation, of the work being discussed, or to cite numerous details to illustrate its qualities. But you should aim at writing an orderly discussion supported by evidence, not a summary with occasional comment. Similarly, if the scope of the discussion includes a number of works, as a rule it is better not to take them up singly in chronological order but to aim from the beginning at establishing general conclusions.

### Examples from a published paper1:

Having shown that BldD binds c-di-GMP, we tested the effect of c-di-GMP on BldD DNA binding.

This is clearer and easier to read than the passive voice (e.g. “the effect of c-di-GMP on BldD DNA binding was tested” or “the BldD regulon in *S. coelicolor* was identified”)

BldD sits at the top of the regulatory cascade controlling development, serving to repress expression of sporulation genes during vegetative growth (den Hengst et al., 2010). In *Streptomyces coelicolor*, BldD controls the expression of at least 167 genes, including 42 genes (∼25% of the regulon) that encode regulatory proteins (Elliot et al., 2001, den Hengst et al., 2010). Among these BldD targets are many genes known to play critical roles in *Streptomyces* development, including other bld regulators (e.g., *bldA, bldC, bldH/adpA, bldM*, and *bldN*), several whi (white) regulators required for the differentiation of aerial hyphae into spores (e.g., *whiG* and *whiB*), and genes encoding critical components of the cell division and chromosome segregation machineries such as FtsZ, SsgA, SsgB, and the DNA translocase SffA (den Hengst et al., 2010, McCormick, 2009). How BldD activity is regulated, however, has been unknown.

Scientific writing (except for methods sections) should almost always be in the present tense – BldD is controlling development in cells (right now). Some exceptions may be made (“has been unknown” 🡪 this is what the authors will demonstrate in this paper)

### Exercise 5A.

Read each sample of scientific writing and ask yourself: Could the writing be improved by switching voice or tense (and if so, how)?

**Sample 5.1** 2

The importance of the disulfide bond in SpeA and staphylococcal enterotoxins (e.g., SEC2) has been shown in studies where mutated cysteine variants of these proteins failed to display biological activities (24–26).

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| Could the voice/tense be improved (how)? |

**Sample 5.2.** 3

Intriguingly, generating a mutant that is unable to make any type of hopanoid by removing the first committed step in hopanoid biosynthesis (*shc*) has evaded realization in *Bradyrhizobium diazoefficiens*, which suggested an essential role for hopanoids in this strain (25). Removing the ability to synthesize C35 or “extended” hopanoids (*hpnH*), however, was achieved, and it has a large effect on the fitness of *B. diazoefficiens* in culture (25, 30).

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| Could the voice/tense be improved (how)? |

**Sample 5.3.** 4

The widespread and intensive application of lactococcal strains is associated with the emergence of host-specific bacteriophages, which are ubiquitous in the dairy environment and which represent a persistent challenge to fermentation processes (6). Phage infection may cause (partial) elimination of the starter culture, resulting in delayed or even failed fermentations with severe economic consequences for producers (7). Among the described lactococcal phage groups/genera (8,9), members of the *Skunavirus* genus (formerly 936 phage group), *Ceduovirus* genus (formerly c2 phage group) and P335 group are particularly prevalent and problematic in modern, large-scale dairy fermentation plants (10).

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| Could the voice/tense be improved (how)? |

### Exercise 5B.

Look at your introduction thus far (or any other piece of writing). Go through it, and examine your use of active/passive voice and verb tense. Consider how your writing can be improved and make the appropriate edits.

### References

1. Tschowri N, Schumacher MA, Schlimpert S, et al. Tetrameric c-di-GMP mediates effective transcription factor dimerization to control Streptomyces development. Cell. 2014;158(5):1136-1147.
2. Lee SF, Li L, Jalal N, Halperin SA. 2021.Identification of a thiol-disulfide oxidoreductase (SdbA) catalyzing disulfide bond formation in the superantigen SpeA in *Streptococcus pyogenes*. J Bacteriol 203:e00153-21. https://doi.org/10.1128/JB.00153-21.
3. Tookmanian E, Junghans L, Kulkarni GG, e al. . 2022. Hopanoids Confer Robustness to Physicochemical Variability in the Niche of the Plant Symbiont *Bradyrhizobium diazoefficiens*. J Bacteriol 10.1128/jb.00442-21
4. Grafakou, A., Mosterd, C., Beck, M. H., Kelleher, P., McDonnell, B., De Waal, P. P., Van Rijswijck, I. M. H., Van Peij, N. N. M. E., Cambillau, C., Mahony, J., & Van Sinderen, D. (2024). Discovery of antiphage systems in the lactococcal plasmidome. *Nucleic Acids Research*. https://doi.org/10.1093/nar/gkae671