

Good Writing Practice

Grammatical disagreement in number

Introduction

The disagreement in number (singular vs. plural) between subject and verb is caused by subject number ambiguity, either intrinsic (the subject itself) or extrinsic (the effect of subject modification).

Experimental sections

Part 1 – Materials and methods section: Methods

Example: Singular subject number intrinsic ambiguity

After 5 min, 20 μL [*was or were*] injected into the hemacytometer, and cells were counted.

Revision

After 5 min, **one volume** (20 μL) was injected into the hemacytometer, and cells were counted.

Notes

Singular in symbol form (μL) but pronounced as a plural (*microliters*), what is the grammatical number of a volume? If the focus is on the entire volume 20 μL being injected rather than increments, the singular verb *was* is grammatically correct. However, if it is inexplicit whether the injection is all at once or incremental, this ambiguity can be lexically resolved. Analogously, the symbol for grams (g) is also singular in form but plural in pronunciation.

Part 2 – Materials and methods section: Methods

Example: singular subject number extrinsic ambiguity

The subcellular location of the truncated subunits [*was or were*] identified.

Revision

The truncated-subunit subcellular location **was** identified.

Notes

Does an intervening prepositional phrase with a plural object affect the number of a singular abstract subject? *Location* is the subject not *subunits*. The distraction results from the proximity

between the plural object *subunits* and the singular verb. In the example, the verb number is the grammatically correct singular. However, the proximity of the plural *subunits* and the singular *was* is still distracting. In the revision, the merging of the modifiers into a singular premodifier obviates any disagreement in number.

In contrast, does an intervening prepositional phrase with a singular object affect verb number of a plural subject? *Different channel estimates in the APML algorithm correspond to a different time interval*. The plural subject *estimates* is undistracted by the singularity of the post-modifier *algorithm*.

Another example (Materials and Methods: method) reinforces the principle of extrinsic modified subject number uncertainty. A *sample of 50 patients (age 25-50 yr) with a history of focal epilepsy* [*was or were*] examined. To avoid confusion between the singularity of *sample* and the plurality of *patients*, *sample* can be deleted. This deletion will avoid the conflict between the grammatical correctness of the singular and the rhetorical (notional) effect of the plural. *Patients (age, 25-50 yr; n=50) with a history of focal epilepsy were examined*.

Consider also this example (from the Results section) that involves a quantifier (e.g., *majority*). *The majority of the proteins was eluted with 1 M NaCl* can be revised by using a more explicit subject; that is, **Most of the proteins were eluted with 1 M NaCl**. Other such weakly inexplicit quantifiers are *a number of*; *a percentage of*; *a range of*; *a variety of*. For all, a numerical substitute (e.g., a numerical range or approximation) would eliminate the agreement in number uncertainty. *For example, the proteins (50-60% of the total number) were eluted with 1 M NaCl*.

Part 3 – Materials and methods section: Materials

Example: Singular pre-noun modifier-caused subject plural number ambiguity

Each rat and mouse [*was or were*] diabetic.

Revision

Each **animal** (*rat, mouse*) was diabetic.

Notes

What effect of the singular determiner (indefinite

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pronoun) *each* on plural coordinate nouns have on verb number? The singularity of *each* prevails despite its reference to coordinated nouns, because the focus is on the individuality of each noun of the pair. However, in the revision any uncertainty is resolved by subsuming under a singular noun.

The effect on verb number is the same when *each* occurs after the coordinated nouns: *The erythrocyte fraction and the plasma fraction each contains linoleic acid*. However, the possibility of verb singularity or plurality causes a distraction, which can be avoided by post-noun to pre-noun, transposition, coordinated fractions, and subsuming under the singular *fraction*: *Each fraction (erythrocyte, plasma) contains linoleic acid*.

Some indefinite pronouns (functioning as determiners) are decidedly singular (*each mussel*). The singularity of other determiners is less explicit, for example, *every*. However, *every* is singular emphasising an item being part of a group (*every mussel was analysed*). In contrast, the indefinite pronoun *none* is ambiguous as in *none of the isomers* [*contain or contains*] radioactivity. *None* can mean *not one* (singular) or *not any* (plural). Consequently, to avoid such ambiguity, either of these substitutes is preferable to *none*.

Part 4 – Results section: Data verbalisation

Example: Proximal singular and distal plural noun number ambiguity

There [*was or were*] a monomer and several dimers.

Revision

There was a **combination** (*monomer, several dimers*) present.

Notes

In the example, coordinated subjects of a

different grammatical number (i.e., *monomer* and *dimers*) in a *there-delayed subject* sentence, results in the verb *were* misagreement in number to the proximal subject *monomer*. The alternative *there was a monomer and several dimers* is correct as to proximity of verb and subject, but not as to the coordinated subjects. However, the proximity correctness seems to overrule the coordination incorrectness. In contrast, subsuming under the singular *combination* is an explicit lexical alternative.

In another example the revision is also to place a summative number before the list: *There [was or were] a tRNA, mRNA, and rRNA. There were three RNAs: tRNA, mRNA, and rRNA.* Insertion of *three RNAs* enables the verb *were* to agree proximally and coordinately with *three RNAs*. Also, subsuming eliminates the misagreement of a (instead of *an*) with *mRNA* and *rRNA*.

Contextual sections

Part 1 – Introduction section: Research problem pertinent background

Example: Singular subject number intrinsic ambiguity

No data [is or are] transmitted during the guard time.

Revision

Not any data are transmitted during the guard time.

Notes

Grammatical number ambiguity is caused by a Latinate plural noun (*data*). Traditionally *data* is considered a plural count noun, as in *many data are transmitted*. However, *data* can be considered as a collective (i.e., a singular) equivalent to *information*, enabling *much* (not *many*) *data* to be acceptable.



The stricture on *data* being only plural and *datum* singular is, however, relaxed for the Latin *agenda*. Rarely is the Latinate singular *agendum* used instead of the plural *agenda*. For example, no one says *what are the agenda today?* Thus, *data* can be both a collective singular as well as a plural; however, traditionalists will likely be distracted by a *data* singular usage. In contrast, *not any* is unequivocally plural.

Part 2 – Introduction section: Research problem pertinent background

Example: Coordinated nouns intrinsic singular subject number ambiguity

Traditionally, *orthodontic diagnosis and treatment* [is or are] taught and practised as a descriptive qualitative subject.

Revision

Traditionally, *orthodontic management* (*diagnosis and treatment*) **is** taught and practised as a descriptive, qualitative subject.

Notes

How do coordinated nouns that are intended to function as a single unit affect verb number? Analogous to *a knife and a fork* is, *diagnosis and treatment* is intended as a singular unit requiring a singular verb. The subtlety and infrequency of the collective meaning will elicit questions as to the grammatical correctness, which is rendered explicit in the revision by subsuming the coordinated nouns under the singular term *orthodontic management*.

Summary

Insight may be gained from the intrinsic and extrinsic perspective because reliance on the rules of grammar may still result in the ambiguity of agreement in number between subject and verb. Instead, lexical alternatives (e.g., a singular summative subject) or an explicit subject (singular or plural) may resolve the ambiguity.

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Schematised misagreement in number distractions and preferred revisions

Intrinsic subject number ambiguity

After 5 min, 20 µL was injected into the hemacytometer, and cells were counted.

→ After 5 min, **one volume** (20 µL) was injected into the hemacytometer, and cells were counted.

No data are transmitted during the guard time.

→ **Not any** data are transmitted during the guard time.

Traditionally, *orthodontic diagnosis and treatment* is taught and practised as a descriptive qualitative subject.

→ Traditionally, **orthodontic management** (*diagnosis and treatment*) **is** taught and practised as a descriptive, qualitative subject.

There was a monomer and several dimers.

→ There was a **combination** (**monomer, several dimers**) present.

Extrinsic subject number ambiguity

The subcellular location of the truncated subunits was identified.

→ The truncated-subunit subcellular location **was** identified.

Each rat and mouse was diabetic.

→ Each **animal** (**rat, mouse**) was diabetic.