



# “Sidedness” as a standard hypernym for “right” and “left” in anatomy

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To the Editor:

A semantic field is a set of words or phrases related by meaning. The semantic field of “biological sex” is “female”, “male”, and “intersex”. The subordinate items (“female”, “male”, and “intersex”) are included within a superordinate item (“biological sex”). The relationship between subordinate and superordinate items is hierarchical and may be described by the terms “hyponym” and “hypernym”. For example, “female” is a hyponym of “biological sex”, and “biological sex” is a hypernym of “female”. Semantic relations are essential in anatomic description. The terminology of anatomy is rigorous and seemingly exhaustive. However, one hypernym has eluded conformity.


What is the hypernym for “right” and “left”? The anatomic literature does not conform to a standard. Several terms are used, among which “laterality” is a popular choice. The word “laterality” implies functional dominance of one of an organ pair. In a strict sense, “laterality” is a hypernym for “right-sided dominance” and “left-sided dominance”. For example, an association between septic arthritis of the wrist and hand laterality implies the pathology is related to handedness—irrespective of “right” or “left”. Therefore, the alternative use of “laterality” for “right” and “left” is erroneous and confusing. Nevertheless, the incorrect use of laterality remains widespread. The semantic duality of “laterality” in anatomic literature compromises the understandability of

articles and the quality of systematic searches.

All variables are hypernyms, making them essential in statistical reporting (e.g., data tables). Therefore, a standard hypernym for “right” and “left” is necessary. Consider the following sentence: “There is a statistically significant association between muscle bulk and [designation].” There are several options for a standard hypernym. A new designation may be coined by compounding Latin loanwords (e.g., “dexter” and “sinister” to form “dextrosinisterity”). However, a novel term is hardly conducive to effective communication. On the other hand, an intuitive hypernym for “right” and “left” is “side”. However, “side” is too generic a term if replaced in the example sentence above. A more suitable term may be crafted by appending a suffix, such as “-ness”, to the adjective “sided”. Indeed, hyponyms specific to “sidedness” are “right-sidedness” and “left-sidedness”, which describe the anatomic property of interest. From the previous discussion, “sidedness” appears a candidate hypernym. The hypernym may be expanded by specifying the organ of interest. For instance, “kidney sidedness” is singular, specific, and clear.

If “sidedness” is deemed a candidate standard hypernym by your readership, dissemination remains a challenge. We suspect authors reluctantly resort to the use of “laterality” for lack of a suitable alternative. The use of “sidedness” by a small number of authors may resonate with a larger body of authors receptive to an appealing alternative—representing a snowball effect of sorts. In any case, current terminology certainly requires revision.

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