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### Corpus-based specialized and transdisciplinary verbs phraseology

The aim of this paper is to try and distinguish between specialized phraseology and transdisciplinary phraseology in comparable earth science English and French corpora. The focus is put on verbs, which can either be considered as terms, or work as collocants for a noun term.

Transdisciplinary phraseology implies expressions such as:

unable to **support** the **hypothesis**  
**confirming** or **denying** the **hypothesis** that  
Until recently, empirical **studies argued** for a positive  
The present **results show** that the former oceanic crust is

Those are not always easy to distinguish from subject-specific phraseology, such as:

LP-events can **develop** into energetic **swarms**  
activity soon **evolved** into an intense **swarm** that lasted 23  
after the **ice shelf** had **melted** as a result of a gradual warming  
former **basaltic crust** could partially **melt**. This may provide an explanation

One of the criteria that can be used to distinguish one type from the other consists in analyzing the class of arguments that can enter in the varied syntactic positions of the verb. Subject-specific verb phraseology very frequently shows the use of noun terms as arguments of the verb, whereas transdisciplinary phraseology shows the use of at least one argument, such as *hypothesis* or *result*, which is part of a more general layer in the scientific domain. As shown in the French examples below, several collocants can be observed with transdisciplinary verbs:

la récurrence des glaciations. Cette **hypothèse** est restée extrêmement **contestée**  
A défaut d'être exacte, cette **hypothèse simplifie** notre **discussion**.  
de terrain (problème " inverse "). Les **hypothèses** qui **sous-tendent** le choix du **modèle**  
polaire', glace de mer, etc). Un tel **résultat** est **confirmé** par notre **modélisation** de

Another argument in favor of a distinction between those two types of verbs arise from the comparison between English and French, in which polysemy depends on the subdomain in which the verb appears. *To melt* for example shows a strong subject-specific character: in subduction, its French equivalent is *fusionner*, while in climatology, it is *fondre*.

Transdisciplinary verb phraseology does not offer such variations.

This results of this study will be applied in a writing aid for French researchers writing in scientific English and is thus part of a joint program between the Intercultural Studies and Applied Languages Department and the Earth, Environmental and Planetary Science Department of the University Paris 7.