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.