

Managing polysemy in the adventure tourism discourse with Frame Semantics

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1 Introduction

This paper deals with polysemy in the adventure tourism domain, a sub-domain concerning the tourism sector with a high degree of polysemy. Our main goal is to manage this linguistic phenomenon by means of a methodology proposal based on semantic frames in order to reduce ambiguity in translation and terminological work.

Polysemy refers to the phenomenon that one word acquires different, though related, meanings, often with respect to particular contexts, that is, one term designating multiple concepts (Měchura, 2006). Polysemy poses quite difficult problems in terminography and other applied linguistics (like translation) regarding different aspects: representation of terminographical data in terminological resources (specialized dictionaries, glossaries, databases, etc.), structuring conceptual and terminological information, carrying out translations of polysemous units, among others.

In order to present this study, the main purposes of our paper are the following: firstly, to briefly discuss this new line of research in terminography and the assumptions of Frame Semantics; secondly, to introduce the main lexical features of the adventure tourism domain regarding polysemy and show several examples of polysemous units in this specialized domain according to the cases established; thirdly, to depict the steps to deal with this linguistic phenomenon in the domain under study, and, finally, to put forward some concluding remarks about the advantages obtained with this methodology.

2 Polysemy in the adventure tourism discourse

The adventure tourism terminology provides plenty of examples of polysemous units, which

have been classified in the following three groups:

Case 1. A term which can be sorted under different conceptual categories (see Illustration 1). For example, “Hydrobob” is used both as an instrument and as an activity in the domain under study.

Case 2. A term which is linked to a conceptual category but which is used in different communicative situations and thus, presents specific features according to its related terms. For example, the term “Board” is employed as an instrument in a number of adventure activities but presents different features according to the specific activity it is used in (kitesurf, water skiing, windsurf).

Case 3. A term which refers to several concepts (and thus meanings) in one language but has different translation equivalents according to the several concepts it denotes. For example, the term “Kayak” in Spanish refers to two different concepts: <kayak> (instrument) and <hacer kayak> (activity) but in English the same instrument is called “Kayak” and the activity is “Kayaking.” This provokes a clear anisomorphism in the two languages at the terminological level.

As it is observed, polysemy is difficult to handle at a terminological level, since one unit refers to several concepts and meanings and, moreover, can have different translation equivalents. Likewise, it is difficult to represent this phenomenon on terminological resources (specialized dictionaries, databases, etc.).

3 Frame-based methodology

Our paper proposes a methodology to cope with polysemy from a conceptual level, that is, a methodology that takes advantage of the conceptual representation in order to facilitate the management of this linguistic phenomenon. Our methodology follows the most recent lines of ontology-based modern terminology research,

such as Termonography (Kerremans et al., 2003); Ontoterminology (Roche, 2009) or Ontoterminography (Durán-Muñoz, 2011/forthcoming). Consequently, the proposed methodology is also corpus-based, descriptive, and systematic and in line with specialized lexicography.

These new lines of research consider traditional conceptual representations too limited to structure conceptual information as they just provide hierarchical categorizations based on generic-specific relations (IS_A) and part-whole relations (PART_OF). Likewise, they assume that knowledge representation needs a wider range of conceptual relations so as to provide greater coherence and specificity when structuring specialized domains. In this context, we uphold the inclusion of hierarchical relations, like traditional models, but also the need to include non-hierarchical relations, such as cause-effect and domain-specific relations (*is_required_in*). Ontologies (more specifically, domain ontologies) turn into a very valuable resource as they allow terminographers to build more complete categorizations and, thus, to carry out more suitable representations of specialized fields, as well as to handle polysemy and other linguistic phenomena.

Domain ontologies can be represented in different ways (linear, graphs and nodes, frames, etc.), each of which presents its own advantages and disadvantages. In our case, the frame-based methodology is applied as it is considered to be more suitable for clearly representing a communicative situation in which related concepts occur.

Frame-based terminology is a recent cognitive approach to terminography, which shares many of its assumptions with the Communicative Theory of Terminology (Cabré, 1999) and Sociocognitive Terminology (Temmerman, 2000) and is based on Fillmore's Frames (1976, 1982) and the cognitive models to represent knowledge and specialized domains.

The conceptual structure resulting from the application of frame semantics in terminology is similar to the representation of reality that humans create in our minds according to the neurolinguists (cf. Givón, 1995), since in both representations semantic relations are established between concepts that usually appear in the same communicative situation. For example, in the communicative situation of "buying a product", we usually match several concepts to this situation in our mind such as "seller", "buyer",

"sell", "buy", "money", etc., which belong to the same semantic frame.¹ Therefore, it is asserted that in order to truly understand the meanings of units (both in general language and specialized discourse), it is required to first have knowledge of the semantic frames that underlie their usage, that is, the concepts and semantic relations established between them in concrete communicative situations.

Below an example of the application of frame-based terminology to create domain ontologies is provided.

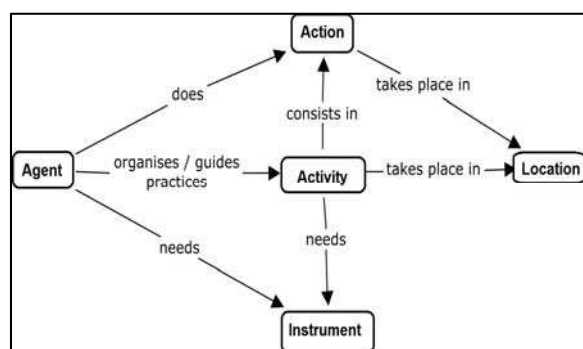


Illustration 1. Categorization of adventure tourism domain.

The Illustration 1 above is the result of a thorough analysis of the adventure tourism domain carried out by studying and managing the compiled specialized corpus and other information resources (dictionaries, legislation, etc.) supported by the assistance of domain experts. The categorization displays the prototypical situation of any event in the domain under study, that is, a conceptual template that provides the semantic frame according to its main categories and interrelations.

This prototypical situation comprises the five main categories detected in an initial phase: Agent, Activity, Action, Location and Instrument, which all are at the same conceptual level within the frame and all are considered necessary to understand the entire system. For example, to talk about an activity it is required to know who practices it, the place in which it takes place, the instrument needed and the action to be carried out. Consequently, the position that a concept occupies in a communicative situation is determined by the relations established with the other concepts included in this representation

¹ Petrucci (1996: 1) defines frame as "any system of concepts related in such a way that to understand any one concept it is necessary to understand the entire system."

and, therefore, it eliminates any possible ambiguity at a language-independent level.

Once the frame-based categorization for the domain is been created, which could be modified (if necessary) or extended with further analysis, possible ambiguity is been reduced and almost eliminated. Subsequently, the next step is to manage the terminological level, where polysemy is encountered and needs to be handled.

In order to do so, the initial categorization is employed to classify terms and represent real communicative situations with the adventure tourism terminology. As a result, the terminological units are organized according to the frame-based representation and are easy to understand and differentiate from one to another and, also, to find translation equivalents in other languages.

4 Benefits of frame-based methodology

As stated above, adventure tourism terminology presents a high degree of polysemy, but thanks to the use of frame-based ontologies it is possible to deal with it by reducing the negative effects pertain to ambiguity, wrong translation equivalents, incomplete representation of domain, etc. The advantages of the application of Frame Semantics to deal with this phenomenon are manifold. Firstly, it provides a complete and coherent representation of the specialized domain categories and their interrelations within the same communicative situation at a conceptual level. Secondly, based on the conceptual level, it is easy to detect the different meanings attached to polysemous units taking their related concepts into account, that is, the meanings/concepts of a polysemous unit are distinguished thanks to the conceptual relations established with other concepts belonging to the same communicative situation. Consequently, it is possible to recognize the different meanings of a polysemous unit which can be placed under several conceptual categories (Case 1 above) or, also, clearly check the divergences of using the same unit in different communicative situations (Case 2 above). Thirdly, translation equivalents are easier to determine at a language-dependent level, as the language-independent level (conceptual level) is been properly structured and represents a prototypical communicative situation common to the working languages (Case 3 above). Therefore, each working language shares the same conceptual representation (or slightly adapted) and, as a consequence, it is easy to map

them so as to find the suitable translation equivalents. And, finally, another remarkable advantage of employing semantic frames in terminology that is worthy to highlight is the possibility to systematically and coherently elaborate definitions based on the categories and the conceptual relations represented in the corresponding frame.

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