# FRAME SEMANTICS ANALYSES OF THE VERBS BORROW AND LEND

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*Abstract: In this paper we will first set out the basics of the frame semantics then, we will analyze the thesis that meaning is encyclopedic in nature, thesis which has two parts: one which holds that the meaning we construct is not a separate of the mind and reflects our overall experience as human beings, our encyclopedic knowledge we could say, and other part which holds that this encyclopedic knowledge is grounded in human interaction with others and the world around us. We will explore the theory of frame semantics, developed in the 1970s and 1980s by Charles Fillmore that has given rise to this approach to meaning.*
*Finally, we will provide a frame semantic analysis of the verbs borrow and lend, scenario that involves the borrower, the lender, the money and the transfer. Using syntactic data from FrameNet I will determine the range of syntactic patterns available and find differences in how the arguments of these verbs are realized. FrameNet, the practical application of Frame Semantics, provides syntactic information and concrete information about how the participants and circumstances in the frame are realized syntactically.*

*Keywords: frame semantics, cognitive linguistics, borrow, lend, encyclopedic knowledge*

## INTRODUCTION

The four guiding principles of cognitive semantics are: conceptual structure is embodied; semantic structure is conceptual structure; meaning representation is encyclopedic; meaning-construction is conceptualization. The essential starting-point is the idea that we cannot understand the meaning of a word without access to all the encyclopedic knowledge that relates to that word. This means that there is no borderline between strictly definitional and merely descriptive features and our knowledge of the world is organized in broader categories, 'larger chunks of knowledge (Geeraerts 2010: 243). The cognitive semantics uses to describe these larger structures of knowledge, two notions: that of Idealized Cognitive Model and that of 'frame'. Geeraerts (2010: 244) describes the differences between these two notions saying that Fillmore uses the notion of 'frame' in a broad sense referring to the knowledge structures that embody our thinking of the world and in more restricted sense, referring to a specific type of knowledge organization in the lexicon. Lafoff uses the word 'framing' on the one hand, to refer to the way in which Idealized Cognitive Models can be used to redirect public debate about social and political issues but, in cognitive semantics they refer to the coherent sets of beliefs and expectations that shape our way of thinking and talking about specific domains of the world.

## THE FRAME SEMANTICS

In order to investigate the nature of encyclopedic knowledge, we explore the theory of frame semantics. Frame semantics is the specific approach to natural language semantics

developed by Charles Fillmore. The idea is that words denote concepts and concepts symbolized by words such as *cow* and *bull* can be compared and contrasted with one another. These concepts can be broken down into semantic features, so that BULL is [CATTLE, MALE], and COW is [CATTLE, FEMALE]. Finally, they can be defined by their truth conditions under which one can say that a concept does, or does not, appropriately apply to a situation in the world. W. Croft and D. A. Cruse (2004: 25) say that: "In this widespread approach to semantics, it is recognized that concepts do not simply float around randomly in the mind." First, there are the relations between words and their corresponding concepts and second, concepts 'belong together' because they are associated in experience.

For example, a UNIVERSITY is not only an educational institution; it is associated with a number of concepts such as STUDENT, PROFESSOR, STUDYING, TEACHING etc. These concepts are not related to UNIVERSITY by structural semantic relations; they are related by ordinary human experience.

Proposals for another means to organize concepts in cognitive linguistics were: frame, image schema, global pattern, ICM, experiential gestalt, domain, but the most influential version has been the model of frame semanticsdeveloped by Fillmore.

"…frame theory is specifically interested in the way in which language may be used to perspectivize an underlying conceptualization of the world—it is not just that we see the world in terms of conceptual models, but those models may be verbalized in different ways." (D. Geeraerts, 2010: 246).

The Fillmorean frame theory leads to a description on two levels distinguished by the terms 'scene' and 'frame' where the scene is the conceptual structure while the frame is the grammatical pattern highlight aspects of the situation. Later on, the terminological distinction was abandoned and the only term used is 'frame'.

Fillmore demonstrates that there are significant phenomena in linguistic semantics that cannot easily be captured in simple set of features, for example the word *bachelor* is defined like unmarried man, but if we take the example of Pope, Tarzan or Robinson Crusoe, it is far from being prototypical of this category. The frame of a word may represent an idealized version of the world that does not include all possible real-world situations. That is why encyclopedic knowledge is used to properly understand a concept, and this knowledge is all interconnected in our minds. A *scar* is not just a feature of the surface of someone's skin, but the healing state of a wound; a *widow* is a woman who was once married but whose husband has died (Fillmore 1977a:73).

## FRAME SEMANTICS ANALYSIS OF *BORROW* AND *LEND*

In the following section, we will present two example of frame analysis the BORROW frame and the LEND frame involving the verbs *lend* and *borrow*.

The commercial transaction frame can be characterized informally by a scenario in which one person gets control or possession of something from a second person, as a result of a mutual agreement through which the first person gives the second person a sum of money. This commercial transaction can be done by a personal network including neighbours, friends, relatives, colleagues, patrons etc or by the bank.

Background knowledge involved in this scenario includes an understanding of ownership relations, a money economy, and bank loans. The basic categories needed for describing the

lexical meanings of the verbs linked to the commercial transaction scene include Borrower, Lender/Bank, Loan/Money and Transfer.

Consider the verbs *borrow* and *lend*. On first inspection it might appear that these verbs both relate to a commercial transaction frame, which includes the following roles: (1) BORROWER; (2) LENDER (the person or institution who gives the money); and (3) MONEY (to be) transferred. However, there is an important difference between the two verbs: in the case of *borrow*, for instance, the borrower appears as the subject of the sentence and the money as the direct object; the borrower and the money appear in prepositional phrases: *Edward borrowed money from the bank.* In the case of *lend*, on the other hand, it is the lender that appears as a subject: *The bank agreed to lend money to students.*

If we take the example of Fillmore and Atkins (1994: 367-8) for the *risk* frame, the BORROW frame will contain the following set of elements:

Protagonist: the central person in the frame (the borrower)
Bad: the possible bad outcome or harm (fall into debt)
Decision: the decision that could trigger this
Goal: the desired outcome
Setting: the risk to fall into debt
Possession: something or someone valued by the protagonist and endangered in the situation
Source: something or someone which could cause the harm

The LEND frame will be:
Protagonist: the central person in the frame (the lender-the bank)
Good: the possible good outcome (get more money back from the borrower)
Decision: the decision to offer the loan
Goal: the desired outcome

The semantic roles in the frame are linked to grammatical forms of expression:

1. *{He}Protagonist lends {his car} Possession {to try to help Paul} Goal*?

For instance, a combination of the Protagonist and the Possession can be expressed by the sentence *He borrows his bike.* A combination of the Protagonist and a Bad outcome is present in *He borrowed too much money and fell into debt.*

Borrow, as in (2-3), which also involves obtaining and change of possession and occurs with the directional *from* prepositional phrase:

2. *He borrowed money from the bank.*
3. *He borrowed a pen from his friend.*

FrameNet has developed a visualization tool for viewing the relations between frames and their frame elements.The FrameNet is a lexical database of English that is both human and machine readable, based on annotating examples of how words are used in actual texts.

The on-line FrameNet lexical database consists of more than 10.000 lexical units associated with roughly 900 hierarchically ordered frames, and illustrated by more than 135.000

sentences taken from corpora. In Figures 1 and 2, we have the *Borrowing* Frame and the *Lending* Frame:

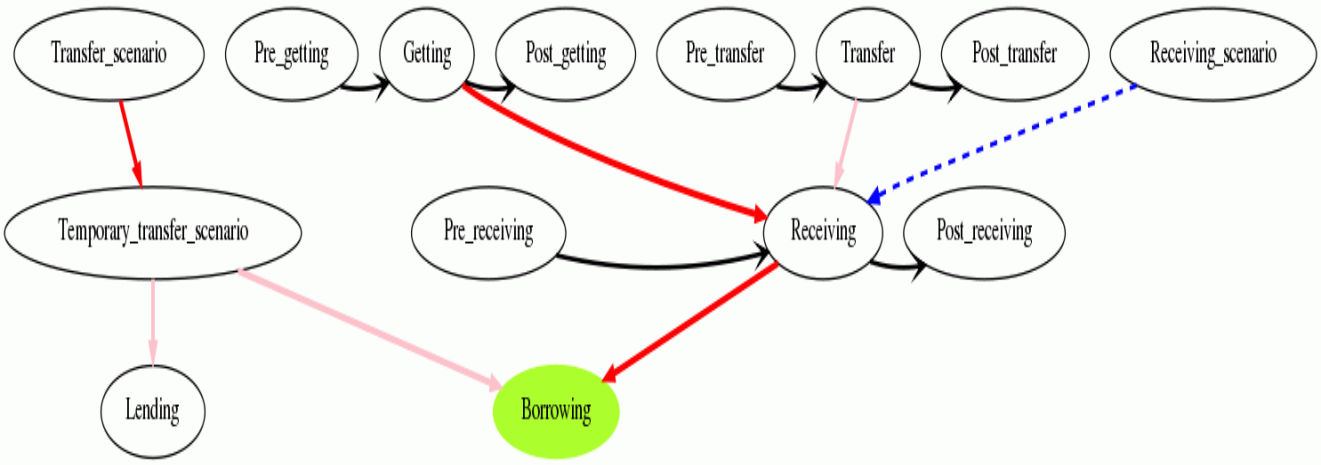


**Figure 1: Frame relations of the *borrowing* frame**

Source: https://framenet.icsi.berkeley.edu

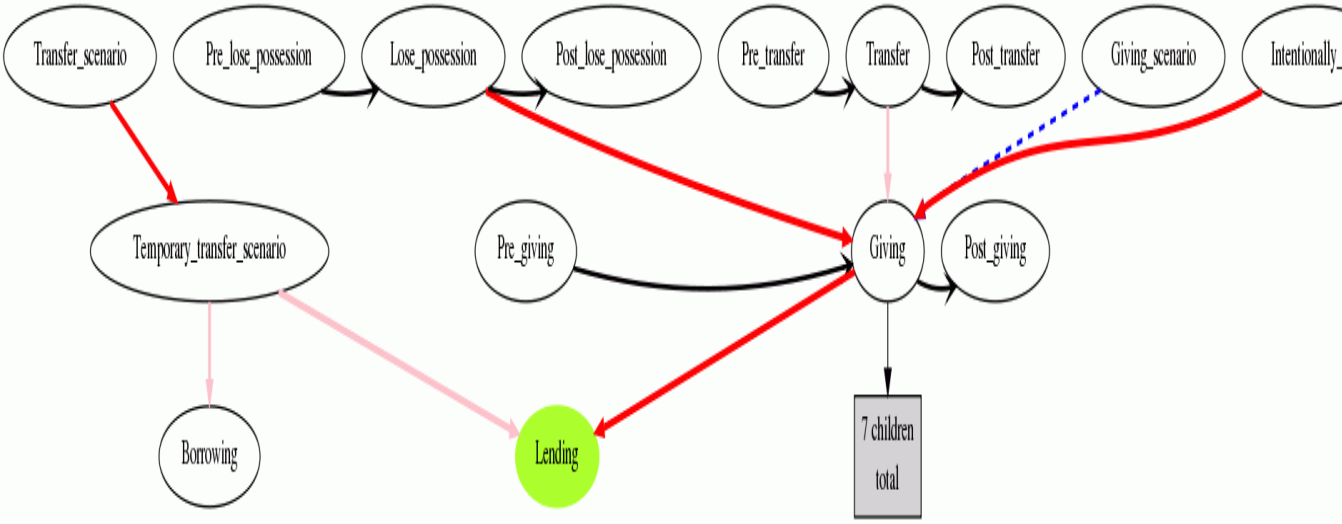


**Figure 2: Frame relations of *lending* frame**

Source: https://framenet.icsi.berkeley.edu

The description of the frame consists of a definition, a list of the frame elements, and an enumeration of the lexical units associated with the frame. Let us consider the frame BORROW.

**Definition**

The Borrower takes possession of a Theme with the knowledge that the Borrower will have to give the Theme back to the Lender after a Duration of time. This frame differs from the Lending frame in that this frame profiles the Borrower in active sentences, whereas the Lending frame profiles the Lender in active sentences.

For the time being, this frame includes both the transfer event itself and the end state of the event, as shown in the first two examples following:

4. *I am borrowing the book about modal particles from the professor.*
5. *I borrowed the book from him and returned it long time ago*.
6. *Not only, did I have to borrow a gown, but I was also lent a jacket!*
7. *The girl borrowed the car from his sister for a couple of days.*

**Frame elements**

Borrower: The person who receives the Theme from the Lender for a Duration.

8. ***Tracy borrowed*** *that book from Leonard last week.*

Lender: The person or institution who gives the Theme to the Borrower for a Duration.

9. *Tracy* ***borrowed*** *that book* ***from Leonard*** *last week.*

Theme: The object that the Borrower receives from the Lender for a Duration.

Duration: The amount of time for which the Borrower has possession of the Theme.

Manner: The way in which the Borrower gains possession of the Theme from the Lender.

10. *I* ***hastily*** *borrowed the keys from his belt.*

Means of transfer: The means by which the transfer of the Theme took place.

11. *I borrowed money from my dad* ***via Western Union***.

Place: The location in which the Borrower gets the Theme from the Lender.

12. *I am borrowing his car* ***at the airport***.

Purpose: The aim of the Borrower which they believe will be accomplished by possessing the Theme.

Time: When the borrowing even occurs.

**Frame-frame Relations:**

Inherits from: Receiving
Is Inherited by:
Perspective on: Temporary transfer scenario
Is Perspectivized in:
Uses:
Is Used by:
Subframe of:
Has Subframe(s):
Precedes:
Is Preceded by:
Is Inchoative of:
Is Causative of:
See also:

**Lexical Units:** *borrow.v*

Let us consider the LEND frame.

**Definition**

The Lender gives the Theme to the Borrower with the expectation that the Borrower will return the Theme to the Lender after a Duration of time. This frame differs from the Borrowing frame in that this frame profiles the Lender in active sentences, whereas the Borrowing frame profiles the Borrower.For the time being, this frame includes both the transfer event itself and the end state of the event, as shown in the first two examples following:

13. *I am lending a student of mine my book on German modal particles.*
14. *The student has not yet given back the book I lent to him.*
15. *Not only did I have to borrow a gown, but I was lent a jacket!*
16. *I lent my girlfriend my car for the weekend.*

**Frame elements**

Borrower: The person or institution who receives the Theme from the Lender for a Duration.

Lender: The person or institution who gives the Theme to the Borrower for a Duration.

17. *I **lent** the book to him for a whole month, and he still hasn't read it.*

Theme: The object that is transferred from the Lender to the Borrower for a Duration.

18. *I **lentthe book** to him for a whole month, and he still hasn't read it.*

Duration: The amount of time in which the Borrower has possession of the Theme.

*19. I lent the book to him **for a whole month**, and he still hasn't read it.*

Manner: The way in which the Lender lends the Theme.

*20. Juan lent me the car **reluctantly.***

Place: The location in which the Lender lends the Theme to the Borrower.

*21. I lent him my book **in Dubai**.*

Purpose: The aim of the Lender which they believe will be accomplished by lending the Theme to the Borrower.

*22. His parents lent him money **to pay off his student loans**.*

Time: The time when the lending event occurs.

*23. I lent him my car **on Friday**.*

**Frame-frame Relations:**

Inherits from: Giving
Is Inherited by:
Perspective on: Temporary transfer scenario
Is Perspectivized in:
Uses:
Is Used by:
Subframe of:
Has Subframe(s):
Precedes:
Is Preceded by:
Is Inchoative of:
Is Causative of:
See also:

**Lexical Units:** *lend.v, loan.n, loan.v*

The last step is to create annotations of sentences showing the ways in which individual lexical units in the frame allow frame-relevant information to be linguistically presented.

*24. {It} The bank lends {money} Possession {to try to help Paul} Goal*

The FrameNet lexical database relates words to frames. The relations between the words derive from this direct link to the frame and the semantic functions are defined relative to a frame too.

**Conclusion**

The purpose of the present research was to provide a frame semantic analysis of the verbs *borrow and lend* based on the frame semantics theory. The FrameNet lexical database helped us view the relations between frames and their frame elements.The frame elements resulted are: the Borrower, the Lender, the Theme, the Duration, the Manner, the Place, the Purpose and the Time. The description of the frame consists of a definition, a list of the frame elements, and an enumeration of the lexical units associated with the frame.

In contrast to objectivist semantics, cognitive semantics expresses that language refers to concepts and considers the meaning representation as being encyclopedic.

These 'frames' are things happening and occurring together in reality. For example, in order to understand the concept *borrow* you need to have world knowledge about the situation of commercial transfer. This comprises, apart from the act of borrowing, a person who borrows, a person who lends, money, and so on. A word activates the frame, highlights individual concepts within the frame, and often determines a certain perspective in which the frame is viewed. In the standard commercial transaction example, for instance, *borrow* construes the situation from the perspective of the borrower and *lend* from the perspective of the lender.

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**Site**
https://framenet.icsi.berkeley.edu/fndrupal/framenet_request_data