

Study on Word Formation and Coding of French and Romanian Table Separated Event Verbs

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Abstract. This article invites 10 native French and 10 Romanian speakers to describe 24 videos, and then compares the verbs representing separation events to conduct empirical research on separation events in French and Romanian. In the verb expression of separation events, both French and Romanian verbs use corresponding verb prefixes, indicating tension from "receiving" to "opening". However, when encoding the same separation event, the encoding focus of the two languages is different. Romanian focuses on the movement of a certain component after separation, while French focuses on the action itself. However, overall, both languages can be classified as dual frame languages with both satellite frame language and verb frame language features.

Keywords: Dissociative events; French; Romanian; categorization; empirical research.

1. Introduction

The research on event classification has only begun in the past 20 years. Causal relationships, diet, holding, handling, opening, cutting, breaking, and especially types of activities such as exercise have received widespread attention (Bowerman, 2005; Bowerman&Choir, 2003; Majid et al., 2007, 2008; Saji et al., 2011; Shaefer, 1980; etc.). Separation events are a subtype of state change events, namely "separation in the integrity of an object or substance" (Hale&Keyser, 1987), such as cutting fruits, tearing cloth, and breaking cups. Previous studies have focused on the universality and language variation across linguistics (Ameka&Hill, 2020; Kwon, 2016; Levinson, 2007; Majid et al., 2007, 2008)

This article positions the research language as French and Romanian. Select 10 native speakers for each language to describe 24 short videos. In Section 1, this article reviews existing research on the classification of motion events and separation events, and explains the motivation behind this study. The second section describes the research methods, including participants, materials, and processes. Section 3 reports the research results and proposes further discussions. Section 4 is the conclusion.

2. Literature Review

2.1. Separation Event Study

Talmy's conceptual analysis of motion components, including path, motion, mode, figure, and ground (Talmy 1985/2000), proposes a bidirectional typology of verb frame and satellite frame languages based on action events. Typology is determined by how the path of movement is expressed (Talmy 1985, 2000). The motion event sparked heated discussions about the feasibility of categorizing human language into satellite frame languages and verb frame languages (Beavers et al., 2010; Chen&Guo, 2009; Croft et al., 2010; Slobin, 1996, 2004). In verb frame languages, paths are represented by active words, while in satellite frame languages, paths are represented by elements related to verbs. Subsequently, Slobin (1996/2000/2004, 2005) conducted further research on language granularity, vocabulary complexity, and other aspects of verb frame language and satellite frame language, and preliminarily modified and improved this theory. French and Romanian are both Romanian languages, and studies have shown that French and Romanian are verb frame languages with satellite frame language characteristics (Olesea Bodean Vozian and Cornelia Cincilei, 2015; Kopecka, published in 2006; Haiting Zhu, 2020; Anetta Kopecka, 2009). Currently, research related

to French and Romanian mainly focuses on movement events, without any research on separation events between Romanian and French.

3. Research methods

3.1. Participants

The corpus collected descriptions from 24 videos and invited 10 (N=10) native speakers of corresponding languages (French, Romance) to participate in this study. Considering the accuracy of the research data and reducing the irrelevant differences in research data caused by age and social demographic hierarchy, the participants were all undergraduate and graduate students with an average age of around 23 years old.

3.2. Material sources

3.2.1 Video Introduction

The video length of 24 stimulus materials is 5-15 seconds, displaying the changes in the state of the object affected by external forces. The 1-17 video borrowed 61 video clips from the Max Plank project (Bo hnmeyer et al., 2001). 18-24 drew on the content of the video shot by Jing Du (Jing Du et al, 2023) and re filmed it. Through 24 different clips, different types of separation events were expressed. For the convenience of research, the 24 video clips were divided into 7 groups:

for example:

C1

La femme an ouvert la porte.

Fata din videoclip deschide o ușă.

(A woman opened the door)

C2

une femme est en train d'ouvrir une boîte qui est posée sur une table.

Persoana din videoclip deschide o cutie.

(A woman opens a big case.)

cutting separations (C7– 9)

C7

Personal din videoclip taie un măr.

La femme en bleu Coupe une demi pomme.

(Someone makes single incision in apple with tool)

C9

Une femme divise une pomme en deux avec un couteau

O doamnă a tăiat un măr în două cu un cuțit.

(Someone Splits apple into two with single knife blow)

breaking separations (C10–12):

C10

Une fille a cassé un œuf.

În acest video a spart oul într-un bol.

(A lady broke an egg.)

C11

Elle épluche la Orange complètement,

Persoana din videoclip desface o portocalie.

(A lady peeled an orange)

tearing separations (C13):

C13

Une fille déchire le tissu en deux morceaux

Persoana din videoclip rupe materialul.

(A woman tore the material.)

parting separations (C14–19)

C14

Fata împinge scaunul de sub masă.

Fille tirant la chaise en arrière.

(Somebody pushes chair back from table.)

C15

Une dame ouvrir une paire de ciseaux avec les main.

Persoana din videoclip desface o foarfecă.

(Somebody opens scissors)

spreading separations (C20 – 24):

C21

Une fille ouvre un livre.

O Doamna deschis cartea de pe masă.

(A women Open a magazine)

C22

La femme an ouvert ses mains.

Persoana din videoclipuri își desface pumnul

(Someone opens hand)

For the convenience of research, 24 videos will be numbered as shown in Table 1. During the participants' participation in the video description process, 24 video clips were randomly played using computer software.

Table 1. Video content and category of separated events

Separation Event	Setting	The type of separation
C1_door	Open door	Opening (separation)
C2_case	Open a big case	Opening
C3_boiler	Open boiler/take cover off boiler	Opening
C4_pen	Take top open	Opening
C5_envelope	Open envelope	Opening
C6_curtain	Open curtain	Opening
C7_apple1	Make single incision in apple with tool	Cutting
C8_daikon	Slice white daikon lengthwise with tool into two pieces	Cutting
C9_apple2	Split apple into two with single knife blow	Cutting
C10_egg	Break shell of an egg	Breaking
C11_orange	Peel an orange almost completely by hand	Breaking
C12_banana	Peel a banana completely by hand	Breaking
C13_material	Tear material about half-way through with two hands	Tearing
C14_chair	Push chair back from table	Parting
C15_scissors	Open scissors	Parting
C16_legs	Step one leg aside	Parting
C17_cups	Pull two plastic cups apart by hand	Parting
C18_button	Unbutton overcoat	Parting
C19_mouth	Open mouth	Parting
C20_sunshade	Open a sunshade	Spreading
C21_magazine	Open a magazine	Spreading
C22_hand	Open hand	Spreading
C23_scarf	Spread a scarf	Spreading
C24_carpet	Spread a carpet	Spreading

3.2.2 Introduction to the text transcription process

Each clip was played twice in a row and then paused for 10 seconds to have the subject describe the separation event that occurred in the video, followed by the next video. Before the video was shown, the researchers explained the procedure to the participants: "A series of video clips will be played, each video will

be played twice, then paused for 10 seconds, and the next video clip will start with an audio prompt, please use the pause time to describe what happened in the video." "Participants' verbal statements are recorded and transcribed into written form in the subjects' native language.

Table 2. Verbs in each video

C1_door	ouvrir	A împinge(1),a deschide
C2_case	ovrir	A Deschide
C3_boiler	Ovri(8)prendre(2)	a deschide ,se lua jos(3) ,ridică(2)
C4_pen	Ovri(7),enlever(2)tient(1)	a deschide(1),da jos(2), a scoate(7)
C5_envelope	ovrir	a deschide
C6_curtain	tirer(8)ovrir(2)	a Deschide ,trage(4),da draperie de(2)
C7_apple1	Découper(3)diviser(5)séparer(2)	a Împărțiți (8)a tăia(2)
C8_daikon	découper	A tăia
C9_apple2	Couper,taper(1)	A felia(1),tăia
C10_egg	casser	a sparge
C11_orange	Peler(2),épluche(6)déchirer(2)	a rupe(1),descoji curăță (2)
C12_banana	Peler(2),épluche(7)déchirer(1)	A Curăță(5),dă Coaja jos,(1)desface(4)
C13_material	Déchirer séparer(1)	a rupe,a despături(1)
C14_chair	Pousser(2)Tirer(6),recule(1)r,bouger(1)	a separa (1)a Împinge(7),dă mai în spate (2)
C15_scissors	ovrir	a deschide(8), a desface(2)
C16_legs	ouvrir(2),séparer(1),écarte(7)	a întinde(1), a despărți, îndeapărtează(2),a mișca(1)
C17_cups	séparer	a separa(3),a scoate(2),a desparte
C18_button	Déballer(3),déboutonner,(6)ovrir(1)	a desface
C19_mouth	ovrir,cligne(1)	A Deschide,a clipi(4)
C20_sunshade	ovrir	a deschide,a desfășura(1)
C21_magazine	ovrir	a Deschide
C22_hand	ovrir(4),tendre(6),	a Deschide,a întinde (1) desface(3)
C23_scarf	Étendre(5),Déplier(4),balancer(1)	a desface,a desfășura(3)
C24_carpet	Étendre(3),Déballer(2),,Dérouler(5)	a desface(1),a întinde(6) a pune(3)

4. Research results and discussion

4.1. High-frequency verbs and their semantics.

In order to compare the number of separated verb types, the subjects' verbal descriptions corresponding to each video clip were recorded, the verbs used in the descriptions were analyzed, and the words most frequently used in the 24 video clips were recorded. It was calculated that native French speakers produced an average of 13.7 verbs for 24 video clips, and Romanian speakers produced an average of 13.9 verbs per person for 24 video clips.

In French, the verb that occurs most frequently is ouvrir, which has multiple meanings as a verb that occurs frequently in French: ① Open (open the door, open the bottle, open the parcel, open the letter), ② open, start (ouvrir un magasin de 9 heures a 18 heures open shop from 9 to 18, ouvrir une campagne war), Open and open (ouvrir les bras open arms, ouvrir les rideaux open curtains, ouvrir lardeson journal, ouvrir un couteau open pocketing knives, ouvrir un parapluie umbrella),④ open, open (ouvrir une fenetre dans un mur open a window in the wall) to create, open (ouvrir une boutique).

In Romanian, the most frequent verb is a Deschide: (1) Open, open (le A deschide capul (sau mintea) opens the box), (2) open, open (A deschide gura opens his mouth, A deschide mana opens his hand), the direction of the door, the window, the path to, ③ The door to the store La ce ora se deschide magazinele? What time does the store open?

Based on the research results of others, this paper subdivides the separated event into 7 different types of separated event sub-events. By comparing the separated event sub-types, the lexical types of each separated

event sub-type are observed, so as to reflect the lexical diversity related to the event. Table 3 shows the frequency of verb types of specific separated sub-types. Specifically, when studying the separation events of subtypes Opening and Parting, Romanian showed more lexical variation than French, showing more lexical categories; When describing the separation event with subtype Cutting, Romanian has fewer lexical categories than French. Although there are differences in lexical categories in the above two cases, the number of lexical categories is small (less than or equal to 3). When describing the Breaking, Tearing and Spreading events, both French and Romanian use the same number of lexical categories.

Table 3 The number of verbs representing separate sub-events in French and Romanian

Separation event subtypes	French	Romanian
Opening	5	8
Cutting	5	3
Breaking	4	4
Tearing	2	2
Parting	10	13
Spreading	6	6

4.2. Table separates event verb categorization.

The category of a word is determined by the relationship between its neighboring words (Imai, 2010). Verb categorization is greatly influenced by different cultures and languages, and its expression in different languages and cultures is more diverse (Talmy 1985; Gentner & Boroditsky 2001). For example, in French, "to open the box" and "to open the lid of the teapot" both use the same verb ouvrir, but in Romanian "to open the lid of the teapot" has the relative displacement of the lid downward and can also use the phrasal verb se lua jos, emphasizing the change of displacement, while opening the box uses the verb a deschide. Phrasal expressions similar to see lua jos in Luo also include "da draperie de", "Fata din videoclip d 'I'd tell you draperie de la fereastr la o parte to pull the curtains from the window to the side", in this study, French phrasal expressions do not appear.

In French and Romanian, the same type of dissociative action event can be described using different verbs. In French, such as C21 opening the book and C23 unwrapping the towel belong to the last group of separation events spreading separations but use different verbs ouvrir and Etendre. This same type of separation time expression for using different verbs also exists in the Ra language, such as C18 unbutton-opening and C21 opening a book, both belonging to the last group of separation events spreading separations but using different verbs a deschide and a desface.

Table 4. Table separation event verb formation

	Lexical categories	Examples:
French	Original base word: New word: 1.Prefix "dé" 2.Prefix "é"	Ovrir. prendre. enlever. tirer. diviser. diviser. couper. taper. casser. peler. séparer. pousser. reculer. bouger. tendre. balancer 1.Découper. déchirer. Déballer. déboutonner. Déplier. Dérouler 2.Éplucher écarter Étendre
Romanian	Single word (Single morpheme) Single word (derivational morphemes) 1.Prefix: "des", 2.Prefix: "în(în)" verbal phrase	a ridică. a scoate. a trage. a tăia. A Felia. a sparge . a rupe. a curăță a mișca. a clipi. a pune 1.a descoji. a deschide. a desface. a desparte. a desfășura 2.a împinge. a împărți, a întinde. a îndepărta. a întinde dă jos. dă draperie de. dă Coaja jos, dă mai în spate

4.3. Prefix Separation Event

The affix des- (dez-) in Romanian means "no", "to get rid of", and words prefixed with des sometimes appear as antonyms of words prefixed with in (im), for example: the verb a desfura has one meaning: Unfold, spread out, "Doamna a desfura o bucat de panz." Is one of the related verb descriptions of video clip C23 "A lady spread out a piece of cloth"; An inf 'a' ura means to wrap, wrap, or cover. "O fat I deschis un pix dar el nu a scris" is one of the related verb descriptions of video C4, "a lady opens a pen" and "an inchide" closes. However, as for the case that des prefixes and in (im) prefixes are antonyms of each other, this study cannot prove the universality of this rule, and other studies are still needed to supplement it.

There is also a separation of affix lists in French. Decouper, déchirer, Deballer, deboutonner, Deplier, Derouler, etc. are verbs with the prefix De - (des-). The actions of French verbs can be divided into "separated mode actions" and "combined mode actions", separated mode actions such as couper (cutting), and collective mode actions such as boutonner (tying), rouler (wrapping), etc. When the prefix De - (des-) is combined with the dissociative verb, it indicates the result or direction of the dissociative verb and is added to the root of the verb in the form of a prefix, indicating the completion or extension of the action, such as: couper indicates the occurrence of the action of cutting, cutting, etc., and Decouper indicates the complete cutting. When the prefix De - (des-) is combined with a set mode verb, the prefix is used as an antisense affix, De - (des-), which means "away from, negate"; for example, the verb rouler (to roll, to roll) becomes the opposite verb Derouler (to unfold, to spread out) with the prefix De -. deboutonner (unbuttoning) and boutonner (fastening a button).

for example:

Un homme en train de déboutonne son manteau.

(A man is unbuttoning his coat)

Une femme boutonne son manteau.

(A woman is tying up her coat)

Un homme roule une cigarette.

(A man rolled a cigarette)

Déroule un rouleau de papier.

(Open a roll of paper)

4.4. Encoding of verbs representing dissociative events in French and Romanian

The same event is represented in different lexical representations due to different concerns or interpretation of event structure (Croft, 2010). In this study, Romanian speakers focused their attention on the position movement of the pen cap, while French speakers focused more on the movement itself. In the following example, Luo focuses on the relative displacement of the pen and the pen cap and describes the occurrence of the event in the form of a phrasal verb, while French uses a verb to describe the action of opening. This change of position is classified according to the motion verb or phrase by the participant's change of position in the description according to a part of the object affected by the force.

For example:

Cette dame a ouvert le capuchon du stylo, mais n'a pas écrit

Ea dă jos capacul Pixului.

(He opens his pen)

Il ouvrit le couvercle de la bouilloire.

Pe masă este un ceainic căruia i se ia jos capacul.

(He takes the lid off the kettle)

In Romanian, verbs and positions are constructed to form compound phrasal verbs with directions, and the direction and path of movement are encoded in the phrasal verbs.

Un homme en train de déboutonner son manteau.

Un bărbat și-a deschis haina.

(He unbuttons his coat)

As mentioned above, French *Deboutonner*, Romanian *deschide* encoded the results of the movement in the first morpheme, and thus it is possible to extend the evidence that French and Romanian, as well as most of the Romantic languages, are a bi-framed language with both satellite - and verb-framed language characteristics (Haiting Zhu, 2020; Kopecka, 2006; Anetta Kopecka, 2009).

5. Conclusion

Dissociative events are a subtype of state-changing events. This paper makes an empirical study of verbs representing such events in French and Romanian. The number of separable event verbs in the two languages is very similar, and the lexical differences between the two languages are not suitable for each separable event subtype. In the verb representation of the separation event, both French and Romanian verbs use the corresponding verb prefix, indicating the tension from "withdraw" to "open", but the coding emphasis of the two languages is different when encoding the same separation event. But in general, both languages can be classified as dual-frame languages which have the characteristics of satellite frame language and verb frame language.

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