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The Semantics of Nouns Derived from Verbs in French

Annotation Guidelines

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List of Abbreviations

agt	Agent
anm	Animate
art	Artifact
art*cog	Artifact*Cognitive
art*ist	Artifact*Institution
ben	Beneficiary
cau	Cause
cog	Cognitive
cog*evt	Cognitive*Event
coll	Collective
des	Destination
dis	Disease
dom	Domain
evt	Event
evt*fin	Event*Financial
evt*nat	Event*Natural
evt*phn	Event*Phenomenon
evt*sta	Event*State
exp	Experiencer
ext	Extent
fig	Figurative
fin	Financial
ins	Instrument
ist	Institution
loc	Location
man	Manner
n	No
N/A	Not Applicable
nat	Natural

List of Abbreviations

pat	Patient
phn	Phenomenon
ppt	Property
pth	Path
pvt	Pivot
qua	Quantity
res	Result
src	Source
sta	State
sti	Stimulus
thm	Theme
tim	Time
tpc	Topic
tsp	Transposition
y	Yes

General Principles

This annotation guide is part of a research project on the semantics of deverbal nouns in French (Swiss National Science Foundation project No. 100012_188782). The objective is to contribute to a better understanding of how the meaning of nouns derived from verbs is structured. The research focuses on the semantic classification of deverbal nouns in relation to morphological structure, base verb properties, and the (non-)preservation of verbal properties in the derivational process. The many-to-many relationships between form and meaning, as well as the polysemy of deverbal nouns, are also examined.

The project is based on a detailed analysis of a large sample of deverbal nouns drawn from an extensive corpus of contemporary French (FRCOW16A, Schäfer, 2015; Schäfer and Bildhauer, 2012). By combining qualitative and quantitative approaches, the project aims to uncover the main tendencies in the morphosemantic construction of deverbal nouns.

1.1 Annotated Properties

The annotation covers three groups of semantic properties:

1. The **semantic type** of deverbal nouns, combining ontological (Section 3.1) and relational information (Section 3.2);
2. The **lexical aspect** of base verbs and deverbal nouns, covering dynamicity, durativity, telicity, and post-phase (Sections 2.2 to 2.5 for verbs; Sections 3.3 to 3.6 for nouns);
3. The **semantic roles** assigned by base verbs (Section 2.6) and deverbal nouns (Section 3.7).

1.2 Semantic Identification

The semantic analysis presented here operates under the assumption that word-formation processes apply to lexemes, which are understood as semantically defined units. Ambiguous nouns or

verbs are treated as distinct lexemes, regardless of whether the ambiguity arises from polysemy or homonymy. A noun or verb is considered ambiguous if any of its analyzed semantic properties have two or more distinct values.

The semantic annotation targets the inherent lexical properties of nouns and verbs, without accounting for contextually coerced interpretations. Lexical ambiguity is indicated in the dataset by appending numeral subscripts to the lemmas and splitting entries in cases of nominal ambiguity (see Section 1.5).

1.3 Verb-Noun Pairing

The annotation focuses on nouns that are morphologically related to verbs. The entries in the dataset are comprised of verb-noun pairs. Verb-noun pairs are formed based on the principle of closest semantic proximity; in cases where either the verb or noun is ambiguous, the verb and noun lexemes that share the most aspectual and role-assigning properties are paired together.

1.4 Verb Alternations

Verbs that allow for systematic syntactic alternations are treated as unique lexical entries. Their role-assigning properties are encoded according to the patterns described in Table 1.1. *Se-V* forms are treated as distinct lexical entries if they correspond to the verb forms described in Table 1.2.

Note: Intrinsic verb forms (e.g., *se méfier* vs. **méfier*) are identified as lexical entries as well.

Type	Form #1 ✗	Form #2 ✓
Reflexive	<i>X se regarde</i>	<i>X (agt) regarde Y (tpc)</i>
Mediopassive	<i>Y se ramasse à la pelle</i>	<i>X (agt) ramasse Y (thm) à la pelle</i>
Parallel	<i>X se rit de Y</i>	<i>X (agt) rit de Y (tpc)</i>
Autobenefactive	<i>X se boit un Y</i>	<i>X (agt) boit un Y (pat)</i>
Antipassive	<i>X se saisit de Y</i>	<i>X (agt) saisit Y (thm)</i>
Reciprocal	<i>X et Y discutent</i>	<i>X (agt) discute avec Y (agt)</i>
Plural object	<i>X mélange les Y</i>	<i>X (agt) mélange Y (pat) avec Z (pat)</i>
Locative I	<i>X pullule de Y</i>	<i>Y (thm) pullulent dans X (loc)</i>
Locative II	<i>X déborde de Y</i>	<i>Y (thm) déborde de X (src)</i>
Locative III	<i>X charge Y de Z</i>	<i>X (agt) charge Z (thm) dans Y (des)</i>
Locative IV	<i>X repasse Y avec Z</i>	<i>X (agt) repasse Z (thm) sur Y (pth)</i>
Locative V	<i>X saute au-dessus de Y</i>	<i>X (thm) saute Y (pth)</i>
Locative VI	<i>X dégringole Y</i>	<i>X (thm) dégringole de Y (src)</i>

Table 1.1: Verb alternations annotated as unique lexical entries

Type	Form #1 ✓	Form #2 ✓
Autonomous	X (exp) <i>aperçoit</i> Y (sti)	X (exp) <i>s'aperçoit de</i> Y (sti)
Autocausative	X (agt) <i>promène</i> Y (thm)	X (agt) <i>se promène</i>
Anticausative	X (cau) <i>transforme</i> Y (pat)	Y (pat) <i>se transforme</i>

Table 1.2: Verb alternations annotated as distinct lexical entries

1.5 Annotation Steps

A distinct entry is created for a given noun in the dataset if the noun is ambiguous in terms of:

- its ontological or relational semantic type;
- its base verb;
- or in any of its aspectual or role-assigning properties.

The annotation task is performed following three steps:

1. Annotation of the semantic type associated with the noun sense;
2. Annotation of the aspectual and role-assigning properties of the corresponding base verb;
3. Annotation of the aspectual and role-assigning properties of the noun sense.

Note: Only verb senses that are related to identified noun senses are annotated.

1.6 External Resources

Lexical ambiguity can be identified by consulting the following external resources:

Lexicographic resources *Wiktionnaire* (Wikimedia Foundation, [n.d.](#)), *Le Petit Robert* (Éditions Le Robert, [n.d.](#)), *Trésor de la Langue Française informatisé* (ATILF et al., [n.d.](#));

Corpus occurrences *frWaC* (Baroni et al., [2009](#)), *FRCOW16A* (Schäfer, [2015](#); Schäfer and Bildhauer, [2012](#)), *frTenTen17* (Jakubíček et al., [2013](#); Suchomel and Pomikálek, [2012](#)).

Linguistic tests can be evaluated through individual intuition and by browsing the Internet for attested occurrences.

1.7 References

The annotation of verb-noun pairs is based on a series of definitions and linguistic tests detailed in the present guide. Many of these definitions and tests are taken or adapted from existing works. The main references used to develop the annotation criteria are the following:

Nominal classification Flaux and Van de Velde (2000), Godard and Jayez (1996), Gross and Kiefer (1995), Haas et al. (2023), Huyghe (2015), Kleiber et al. (2012).

Aspectual properties Balvet et al. (2011), Dahl (1981), Declerck (1979), Dowty (1979), Filip (2016), Haas (2009), Haas et al. (2008), Haas and Jugnet (2013), Hay et al. (1999), Heyd and Knittel (2009), Huyghe (2011), Huyghe (2014), Meinschaefer (2004), Mourelatos (1978), Piñón (1999), Rothstein (2004), Smith (1991), Tenny (1994), Vendler (1967), Verkuyl (1993).

Semantic roles Framenet (Baker et al., 1998), LIRICS (Petukhova & Bunt, 2008), PropBank (Palmer et al., 2005), SensoComune (Vetere et al., 2011), Unified Verb Index (University of Colorado Boulder, n.d.), VerbeNet (Danlos et al., 2014; Pradet et al., 2014), VerbNet (Kipper-Schuler, 2005),.

Verb Annotation Instructions

2.1 Transitivity

Criterion Transitivity of the base verb (i.e., subcategorization of direct objects)

Label /V_TRANS/

Options

- y = The base verb takes a direct object
- n = The base verb does not take a direct object

Remarks

- In case of y, direct objects may be implicit (e.g., *Pierre mange* vs. *Pierre mange une pomme*).
- In case of n, verbs may subcategorize oblique arguments, but not direct object arguments (e.g., *Pierre renonce à sa bourse*).

Examples

- *scruter* → y, *lire* → y, *concrétiser* → y
- *boursicoter* → n, *se concrétiser* → n, *renoncer* → n, *profiter* → n

2.2 Dynamicity

Criterion Dynamicity of the base verb

Label /V_DYN/

Options

- y = The base verb denotes a dynamic eventuality
- n = The base verb denotes a stative eventuality

Tests

Dynamicity Test #1
X est en train de V (Y)
✓ → y ✗ → Test #2

Dynamicity Test #2
– Qu’a fait X hier? – X a Vé (Y)
OR
– Que s’est-il passé hier? – X a Vé (Y)
✓ → y ✗ → n

Remarks

- Tests #1 and #2 must be applied in sequence to ensure accurate classification.
- In Test #1, *X est en train de V (Y)* must not have an inchoative interpretation (2e)-(2f).

Examples #1

- (1)
 - a. Camille est en train de *manger* une fondue. ✓
 - b. Le renard est en train de *chasser* une proie. ✓
 - c. La neige est en train de *fondre*. ✓
- (2)
 - a. ?Sacha est en train de *posséder* trois voitures. ✗
 - b. ?Marion est en train d’*adorer* cette situation. ✗
 - c. ?Valéry est en train de *connaître* cette plante. ✗
 - d. ?Le néon est en train d’*éclairer* le couloir. ✗
 - e. #L’armée est en train de *capituler*. ✗ (inchoative interpretation)
 - f. #Pierre est en train de *percer* le ballon. ✗ (inchoative interpretation)

Examples #2

- (3)
 - a. – Qu’a fait l’armée hier? – L’armée a *capitulé*. ✓
 - b. – Que s’est-il passé hier? – Pierre a *percé* le ballon. ✓

- (4)
- a. – Qu’a fait Sacha hier? – #Elle *a possédé* trois voitures. ✗
 - b. – Qu’a fait Marion hier? – #Elle *a adoré* cette situation. ✗
 - c. – Que s’est-il passé hier? – #Valéry *a connu* cette plante. ✗
 - d. – Que s’est-il passé hier? – #Le néon *a éclairé* le couloir. ✗

2.3 Durativity

Criterion Durativity of the base verb

Label /V_DUR/

Options

- y = The base verb denotes a durative eventuality
- n = The base verb denotes a non-durative eventuality

Interdependence

- Stative verbs are durative: n to [Dynamicity](#) → y to Durativity.
- Verbs of variable telicity are durative: v to [Telicity](#) → y to Durativity.

Tests

Durativity Test	
X a {commencé à/continué de/arrêté de} V (Y)	
OR	
X a Vé (Y) {en/pendant} x temps	
✓ → y	✗ → n

Remarks

- X and Y must denote entities in delimited quantity (e.g., *L’enfant a mangé une pomme* vs. *L’enfant a mangé des pommes* and *Des enfants ont mangé une pomme*).
- *x temps* is a duration expression in which *x* is a numeral determiner and *temps* is a temporal unit (e.g., *seconde*, *minute*, *heure*, *jour*, *mois*).
- The tests must not focus on the preparatory phase of the process expressed by the verb (6c).
- The tests must not target the post-phase of the process denoted by the verb (6d).

- The tests must not trigger an iterative interpretation (6e)-(6f). By default, inherently frequentative verbs (i.e., verbs which denote repetitive actions) are not interpreted as iterative (e.g., *sautiller*, *clignoter*) (5c).

Examples

- (5)
- a. J’ai commencé à *cuisiner* ce plat. ✓
 - b. Camille a continué de *fredonner* une mélodie. ✓
 - c. J’ai continué de *sautiller*. ✓
 - d. Elle a arrêté de *regarder* le film. ✓
 - e. Pierre a *modernisé* son entreprise en trois ans. ✓
 - f. Tu *as marché* pendant deux heures. ✓
- (6)
- a. ?Il a arrêté d’*apercevoir* un avion. ✗
 - b. ?Jeanne a commencé à *naître*. ✗
 - c. #Elle a *atteint* le sommet en deux jours. ✗ (preparatory phase)
 - d. #Il a *exclu* Sacha pendant quinze minutes. ✗ (post-phase)
 - e. #J’ai continué de *notifier* ce problème. ✗ (iterative interpretation)
 - f. #Je lui *ai notifié* ce problème pendant deux ans. ✗ (iterative interpretation)

2.4 Telicity

Criterion Telicity

Label /V_TEL/

Options

- [y] = The base verb denotes a telic eventuality
- [n] = The base verb denotes an atelic eventuality
- [v] = The base verb denotes an eventuality of variable telicity

Interdependence

- Stative verbs are atelic: [n] to **Dynamicity** → [n] to Telicity.
- Non-durative verbs are telic: [n] to **Durativity** → [y] to Telicity.

Tests

Telicity Test #1	
X a Vé (Y) en x temps	
✓ → [Test #2]	✗ → [n]

Telicity Test #2	
X a {beaucoup/considérablement} Vé (Y)	
✓ → v	✗ → y

Remarks

- Tests #1 and #2 must be applied in sequence to ensure accurate classification.
- X and Y must denote delimited entities (e.g., *L'enfant mange une pomme* vs. *L'enfant mange des pommes* and *Des enfants mangent une pomme*).
- *x temps* is a duration expression where *x* is a numeral determiner and *temps* is a temporal unit (e.g., *seconde*, *minute*, *heure*, *jour*, *mois*).
- The *en* complement must relate to a dynamic process, not to a preparatory phase (8c).
- The complements *beaucoup* and *considérablement* must carry an intensive meaning (10b)-(10c).
- Verbs of variable telicity often derive from gradable adjectives (e.g., *lent/ralentir*, *froid/refroidir*).

Examples #1

- (7)
- a. La coopérative *a augmenté* le prix du lait en deux semaines. ✓
 - b. Le blé *a séché* en trois jours. ✓
 - c. L'économie *a ralenti* en six mois. ✓
 - d. Elle *a complété* le questionnaire en quarante minutes. ✓
 - e. Sacha *a mangé* son repas en vingt minutes. ✓
 - f. J'*ai réparé* ma voiture en trois semaines. ✓
- (8)
- a. ?Le bourreau *a martyrisé* sa victime en deux mois. ✗
 - b. ?Sacha *a aperçu* son voisin en quatre minutes. ✗
 - c. #Chloé *a démissionné* en deux heures. ✗ (preparatory phase)

Examples #2

- (9)
- a. La coopérative *a considérablement augmenté* le prix du lait. ✓
 - b. Le blé *a beaucoup séché*. ✓
 - c. L'économie *a considérablement ralenti*. ✓
- (10)
- a. ?Elle *a beaucoup complété* le questionnaire. ✗
 - b. #Sacha *a beaucoup mangé*. ✗ (extensive/quantitative interpretation)
 - c. #J'*ai beaucoup réparé* ma voiture. ✗ (extensive/iterative interpretation)

2.5 Post-phase

Criterion Post-phase

Label /V_POST_PHASE/

Options

- y = The base verb denotes an eventuality that includes a post-phase
- n = The base verb denotes an eventuality that does not include a post-phase

Interdependence Post-phase does not apply to atelic eventualities: n to [Telicity](#) → n to Post-phase.

Test

Post-phase Test	
X a Vé (Y) pendant x temps	
✓ → y	✗ → n

Remarks

- X and Y must denote delimited entities (e.g., *L'enfant mange une pomme* vs. *L'enfant mange des pommes* and *Des enfants mangent une pomme*).
- The *pendant* complement must relate to a post-phase, not (only) to a dynamic process.

Examples

- (11) a. Le roi a emprisonné Jeanne pendant deux ans. ✓
 b. Le chat a disparu pendant deux semaines. ✓
 c. L'arbitre a exclu le joueur pendant dix minutes. ✓
- (12) a. #Sacha a réparé le vélo pendant une heure. ✗
 b. #Mon voisin a rénové son chalet pendant trois mois. ✗
 c. #Elle a maintenu sa tête sous l'eau pendant trente secondes. ✗

2.6 Semantic Roles

Criteria Semantic role assigned by the verb to its subject, object or oblique argument

Labels

- /V_ROL_SUBJ/ for subject arguments
- /V_ROL_OBJ/ for object arguments
- /V_ROL_OBQ/ for oblique arguments

Options

- any role from the list below
- N/A if there is no argument

List

- [Agent](#) (agt)
- [Beneficiary](#) (ben)
- [Cause](#) (cau)
- [Destination](#) (des)
- [Experiencer](#) (exp)
- [Extent](#) (ext)
- [Instrument](#) (ins)
- [Location](#) (loc)
- [Manner](#) (man)
- [Path](#) (pth)
- [Patient](#) (pat)
- [Pivot](#) (pvt)
- [Result](#) (res)
- [Source](#) (src)
- [Stimulus](#) (sti)
- [Theme](#) (thm)
- [Topic](#) (tpc)

Precautions Annotators should be aware of the following:

- Only arguments which are both syntactic and semantic are annotated. Syntactic arguments cannot be reintroduced in a new sentence using *le faire*. For example, *à sa mère*

in (13a) is a syntactic argument of *acheter* (13b), whereas *avec un couteau bien aiguisé* in (14a) is not a syntactic argument of *trancher* (14b). Semantic arguments correspond to participants that are conceptually necessary to the eventuality denoted by the verb. For example, *avec un couteau bien aiguisé* functions as a semantic argument in (14a) because the action denoted by *trancher* conceptually involves an instrument. In contrast, *à sa mère* in (13a) does not play an essential role in the meaning of *acheter* itself. It follows that neither *à sa mère* (which is a syntactic but not a semantic argument) nor *avec un couteau bien aiguisé* (which is a semantic but not a syntactic argument) are annotated.

- (13) a. Elle a acheté un bouquet à sa mère.
b. ?Elle a acheté un bouquet, et elle l’a fait à sa mère.
- (14) a. Il a tranché la viande avec un couteau bien aiguisé.
b. Il a tranché la viande, et il l’a fait avec un couteau bien aiguisé.
- When identifying the role of a given argument, a broad range of scenarios must be considered (15a)-(15b), i.e., not only the usual situations that involve animate entities (15c).
- (15) a. La canicule a tué Camille.
b. Le rocher a tué Camille en tombant.
c. Mon voisin a tué Camille.
- Semantic role assignment is described for lexical entries, i.e., it should encompass all possible variants for each argument type. For example, *tuer* is considered to assign the role of Cause by default (15a)-(15b), although some subjects are Agents (15c).

2.6.1 Agent

Agent (agt)
Entity that brings about an event intentionally

Remarks Agents are prototypically animate entities. They also include machines, robots, vehicles, etc. in case the event is fundamentally described by the verbal predicate as intentionally performed by an autonomous entity.

Hierarchy Agent falls under Cause. An Agent is a Cause that is necessarily intentional.

Concurrent roles Unlike Agents:

- *Stimuli* cause states, not necessarily intentionally;

- **Experiencers** are in or enter a psychological, perceptive or physiological state, and do not perform actions;
- **Pivots** are attributed a property, and do not perform actions;
- **Themes** are not necessarily intentional.

Prototypical examples

- (16)
- a. *Camille* a assassiné son frère.
 - b. *Le chat* a chassé une souris.
 - c. *La classe* a corrigé le devoir avec application.

Marginal examples

- (17)
- a. *L'androïde* a attaqué le commissariat.
 - b. *Romain* se rend à Paris.
 - c. *Le vendeur* a amadoué son client.

2.6.2 Beneficiary

Beneficiary (ben)
Entity that receives or is dispossessed of something, or that is advantaged or disadvantaged by an event or a state

Remark Beneficiaries correspond prototypically to dative arguments.

Concurrent roles Unlike Beneficiaries:

- **Patients** undergo a change of structure;
- **Results** are created through a process;
- **Themes** are involved in a locative relation;
- **Topics** are not (dis)advantaged by an eventuality.

Prototypical examples

- (18)
- a. Marcel a offert des livres *à son ami*.
 - b. Paul a pardonné *à son voisin*.
 - c. Pierre a promis *à sa soeur* de ne plus se droguer.
 - d. Les règles *nous* interdisent de fumer.
 - e. Jeanne parle *à son frère*.

Marginal examples

- (19) a. *L'économie* a profité de conditions propices.
 b. Arnaud caresse *un petit chat roux*.
 c. La météo a pénalisé *la production viticole*.
 d. J'ai arnaqué *mon voisin*.
 e. La promulgation de la loi a aidé *notre cause*.
 f. Son coup de sang a coûté trois matches de suspension *au joueur*.

2.6.3 Cause**Cause (cau)**

Entity that initiates an eventuality (not necessarily intentionally), or is the reason why an eventuality occurs

Remark A Cause role is lexically assigned by causative verbs that do not imply intentionality (i.e., verbs that denote non-intentional or non necessarily intentional events).

Hierarchy Cause subsumes Agent and Stimulus. Agents are Causes that are necessarily intentional. Stimuli are Causes that initiate a psychological, perceptive or physiological state.

Concurrent roles Unlike Causes:

- **Experiencers** are in or enter a psychological, perceptive or physiological state, but do not cause anything;
- **Pivots** are attributed a property, but do not cause anything.

Prototypical examples

- (20) a. *La tempête* a détruit le chalet.
 b. *Sacha* a détruit (volontairement/par mégarde) le bricolage de sa soeur.
- (21) a. *La crise* a déclenché un mouvement de réformes.
 b. *Le pilote* a (volontairement/involontairement) déclenché l'alarme.
- (22) a. *La canicule* a tué de nombreuses personnes.
 b. *Valéry* a tué Camille (volontairement/par accident).

Marginal examples

- (23) a. *Le satellite* a détecté une rafale de rayons gamma.
 b. *Mon chat* ronfle.
 c. *Le bébé* bave.

2.6.4 Destination

Destination (des)
Endpoint in a change of location

Remarks Destinations are temporal or spatial points of reference used to localize the end of a movement. Metaphorical abstract Destinations can be identified for verbs that allow for spatial or temporal endpoints. Fictive motions can involve a Destination argument.

Concurrent roles Unlike Destinations:

- **Locations** are surrounding landmarks and do not indicate reference points in a change of location;
- **Paths** indicate a trajectory and do not focus on an endpoint;
- **Sources** indicate a starting point rather than an endpoint.

Prototypical examples

- (24)
- Valéry a amené son chat *chez le vétérinaire*.
 - Sacha a conduit ses parents *à la gare*.
 - Le colloque s'est terminé *à 17h30*.

Marginal examples

- (25)
- Sacha a conduit le projet *à son terme*.
 - Ce chemin va *à la ville*.
 - La fenêtre donne *sur la cour*.

2.6.5 Experiencer

Experiencer (exp)
Entity that is in or enters a particular state in relation to a psychological, perceptive or physiological stimulation

Remarks Experiencers are prototypically animate entities. They can be affected by Stimuli. They do not cause anything.

Concurrent roles Unlike Experiencers:

- **Causes** and **Agents** necessarily bring about an eventuality;

- **Pivots** are in a non-psychological, non-perceptive and non-physiological state;
- **Themes** are in a locative state.

Prototypical examples

- (26) a. La crise a traumatisé *Pierre*.
 b. Ce tableau plaît beaucoup à *Sacha*.
 c. Le film amuse *les enfants*.
 d. *Paul* s'énerve.
- (27) a. *Mon voisin* a senti une odeur de croissant.
 b. *Sacha* a entendu des hurlements inquiétants.
 c. *Camille* a aperçu un cerf ce matin.

Marginal examples

- (28) a. Mon pull en laine *me* gratte.
 b. Les épines de la rose picotent *Pierre*.
 c. *Marie* frissonne.
- (29) *Jeanne* pense à son futur dîner.

2.6.6 Extent

Extent (ext)
Extensive value related to an event, or measurable magnitude of a change of state or location

Remark Extents are measures of space, time, size, weight, temperature, money, etc.

Examples

- (30) a. La route fait *4 kilomètres de long*.
 b. L'appareil a tourné *de 90 degrés*.
 c. Leur concert a duré *trois heures*.
 d. Ce pain pèse *une livre*.
 e. Le livre de Valéry coûte *20 francs*.

2.6.7 Instrument

Instrument (ins)
Entity that is manipulated in order to perform an action

Remark The Instrument role is rarely assigned to syntactic arguments of verbal predicates.

Concurrent roles Unlike Instruments:

- [Agents](#) are intentional and not manipulated by another entity;
- [Patients](#) undergo a change of state;
- [Themes](#) are located or change location.

Examples

- (31)
- a. Elle se sert *d'un couteau* pour couper le pain.
 - b. Il utilise *un savon doux* pour se laver.
 - c. Tu recours à *un double dispositif disciplinaire*.
 - d. Nous usons *de nos charmes* pour arriver à nos fins.

2.6.8 Location

Location (loc)
Entity that serves as a landmark to locate another entity or an event

Remarks Locations are spatial or temporal points of reference that can be used to localize Themes. Metaphorical abstract Locations can be identified for verbs that allow for spatial or temporal landmarks.

Concurrent roles Unlike Locations:

- [Paths](#) entail (fictive) motion and indicate trajectories;
- [Sources](#) entail (fictive) motion and indicate a starting point in a change of location;
- [Destinations](#) entail (fictive) motion and indicate an endpoint in a change of location.

Prototypical examples

- (32)
- a. Le livre se trouve *dans la bibliothèque*.
 - b. Les insectes grouillent *dans la forêt*.
 - c. La réunion tombe *un mardi*.

Marginal examples

- (33) a. Sacha est *dans une mauvaise passe*.
 b. Ce travail se situe *dans une perspective interactionniste*.
 c. L'association se trouve *dans une situation difficile*.

2.6.9 Manner**Manner (man)**

The way an action is performed, or the intensity of a state

Remarks Some verbs assign a Manner role to oblique arguments.

Examples

- (34) a. Camille et Sacha se comportent *bien*.
 b. Son chien se conduit *bizarrement*.
 c. Mon voisin se sent *mal*.
 d. Tu te tiens *droit*.
 e. Je traite mon chat *de manière exemplaire*.

2.6.10 Path**Path (pth)**

Trajectory followed during a change of location

Remarks Paths are spatial or temporal entities that can be used to localize movements or changes of location. Metaphorical abstract Paths can be identified for verbs that allow for spatial or temporal trajectories. Fictive motions can involve a Path argument.

Concurrent roles Unlike Paths:

- **Locations** are surrounding landmarks that are not used to characterize trajectories;
- **Sources** do not indicate a trajectory but a starting point in a change of location;
- **Destinations** do not indicate a trajectory but an endpoint in a change of location.

Prototypical examples

- (35) a. Valéry traverse *le lac* en kayak.
 b. Nous avons passé *la frontière*.
 c. Sacha emprunte souvent *ce chemin de terre battue*.

Marginal examples

- (36) a. Camille traverse *une période difficile*.
 b. Ils ont dépassé *le quart d'heure de retard*.
 c. La route longe *le canal*.

2.6.11 Patient

Patient (pat)
Entity that undergoes a (potential) change of structure

Remarks Patients can be affected by an event triggered by a Cause or an Agent, but the cause for structural change is not necessarily expressed.

Concurrent roles Unlike Patients:

- **Results** are entirely created through a process;
- **Themes**, **Beneficiaries** and **Topics** do not undergo a change of structure.

Prototypical examples

- (37) a. La tempête a détruit *le chalet*.
 b. Sacha a assassiné *son frère*.
 c. La classe a corrigé *le devoir*.
 d. Valéry désosse *une cuisse de poulet*.
- (38) a. *Mireille* se meurt.
 b. *La bombe* a explosé.
 c. *Le pays* s'est beaucoup transformé.
 d. *Le vernis* a durci.

Marginal examples

- (39) a. *Le tonneau* fuit.
 b. La voiture percute *le mur*.
 c. Camille gaspille *sa nourriture*.
 d. Sacha consomme *de l'électricité*.

2.6.12 Pivot

Pivot (pvt)
Entity that is attributed a property, or is in a non-stimulated condition

Remarks A Pivot is prototypically the subject of an individual-level predicate that denotes an inherent property. A Pivot can nevertheless be in an episodic state, provided it is not a psychological, perceptive, physiological or locative state.

Concurrent roles Unlike Pivots:

- [Causes](#) bring about eventualities;
- [Experiencers](#) are in a transitional psychological, perceptive or physiological state;
- [Themes](#) are located entities;
- [Topics](#) are involved in cognitive activities.

Prototypical examples

- (40)
- a. *Marie* possède trois vélos.
 - b. *Le glacier* s'étend sur 56 km².
 - c. *Le noir* va bien avec le rouge.

Marginal examples

- (41)
- a. *Le poster* présente les gestes de premiers secours.
 - b. *Le texte* décrit une bataille qui a eu lieu il y a 100 ans.
 - c. *Les règles* interdisent de fumer.
 - d. *La mer* rutile à la lumière du soleil levant.

2.6.13 Result

Result (res)
Entity that is created through an event

Remark Results are created by Causes or Agents.

Concurrent roles Unlike Results, [Patients](#), [Beneficiaries](#), [Themes](#) and [Topics](#) are entities that preexist to the eventuality.

Prototypical examples

- (42)
- a. Pierre a fabriqué *une bibliothèque*.
 - b. Marion a creusé *un trou*.
 - c. Sacha a peint *un tableau*.
 - d. L'écrivain a inventé *une langue très complexe*.
 - e. Mes parents ont cuisiné *un gâteau*.

Marginal examples

- (43)
- a. Mon voisin aboie *une insulte*.
 - b. Les négociations ont abouti à *un accord*.
 - c. Ces mesures ont permis *une baisse des émissions de CO₂*.

2.6.14 Source

Source (src)
Starting point in a change of location

Remarks Sources are temporal or spatial points of reference used to localize the start of a movement. Metaphorical abstract Sources can be identified for verbs that allow for spatial or temporal starting points. Fictive motions can involve a Source argument.

Concurrent roles Unlike Sources:

- **Locations** are surrounding landmarks and do not indicate reference points in a change of location;
- **Paths** indicate a trajectory and do not focus on a starting point;
- **Destinations** indicate an endpoint rather than a starting point.

Prototypical examples

- (44)
- a. L'eau a jailli *du sol*.
 - b. Elle est partie *de Fribourg*.
 - c. Le colloque a commencé à *9h00*.

Marginal examples

- (45)
- a. Notre équipe est partie *de rien*.
 - b. Le sentier démarre *de Brest*.
 - c. Ce régime s'éloigne *des valeurs démocratiques*.

2.6.15 Stimulus

Stimulus (sti)
Entity that causes a psychological, perceptive or physiological state

Remarks Stimuli affect Experiencers.

Hierarchy Stimulus falls under Cause. A Stimulus is a Cause that initiates a psychological, perceptive or physiological state.

Concurrent role Unlike Stimuli, [Agents](#) are necessarily intentional Causes, and necessarily perform actions.

Prototypical examples

- (46)
 - a. *La crise* a traumatisé Pierre.
 - b. *Ce tableau* plaît beaucoup à Sacha.
 - c. *Le film* amuse les enfants.
- (47)
 - a. Pierre a senti *une odeur de croissant*.
 - b. Sacha a entendu *des hurlements inquiétants*.
 - c. J'ai vu *un cerf* ce matin.

Marginal examples

- (48)
 - a. *{Cette option/Pierre}* a séduit Jeanne.
 - b. *{La situation/Pierre}* agace Jeanne.
- (49)
 - a. *Mon pull en laine* me gratte.
 - b. *La fumée* lui picote les yeux.

2.6.16 Theme

Theme (thm)
Entity that is in a certain location or changes location

Remarks Themes can be statically related to a Location, or change location through a process initiated by an Agent or a Cause. They can also be (non-intentional) self-moving items.

Concurrent roles Unlike Themes:

- **Agents** are necessarily intentional;
- **Patients**, **Results**, and **Beneficiaries** are not located, and do not undergo a change of location.

Prototypical examples

- (50) a. Sacha pousse *le chariot*.
b. *Valéry* est tombé de son lit.
c. *La caisse* glisse sur la glace.
- (51) a. *Le livre* se trouve sur la table.
b. *Les vélos* sont dans le garage.
c. La casserole contient *de l'eau bouillante*.

Marginal examples

- (52) a. Mes voisins investissent *beaucoup d'argent* dans ce projet.
b. Valéry possède *douze chats*.
c. Sacha porte *une veste en tweed*.
d. Camille coordonne *les deux équipes*.
e. Elle a trouvé *une source d'eau chaude*.
f. *Les insectes* grouillent dans la forêt.

2.6.17 Topic

Topic (tpc)
Entity that is a subject of thought, discussion or cognitive activity

Remarks Topics are involved in cognitive eventualities but do not instigate or cause those eventualities, and are not affected by them.

Concurrent roles Unlike Topics:

- **Patients** are affected entities;
- **Results** are created through an event;
- **Themes** are involved in a locative relation;
- **Pivots** are characterized with respect to their properties.

Prototypical examples

- (53)
- a. Mes collègues parlent *d'astronomie*.
 - b. Elles étudient *l'histoire*.
 - c. Les enfants pensent *aux prochaines vacances*.

Marginal examples

- (54)
- a. Marc photographie *un raton-laveur*.
 - b. Jeanne enregistre *Pierre*.
 - c. Pablo scanne *un document*.

Noun Annotation Instructions

3.1 Ontological Type

Criterion Ontological type of N

Label /TYPE_ONTO/

Options

- any type from the list below
- type-coll if N is [collective](#)

List

- [Animate](#) (anm)
- [Artifact](#) (art)
- [Cognitive](#) (cog)
- [Disease](#) (dis)
- [Domain](#) (dom)
- [Event](#) (evt)
- [Financial](#) (fin)
- [Institution](#) (ist)
- [Natural](#) (nat)
- [Not Applicable](#) (N/A)
- [Phenomenon](#) (phn)
- [Property](#) (ppt)
- [Quantity](#) (qua)
- [State](#) (sta)

- Time (tim)
- Artifact*Cognitive (art*cog)
- Artifact*Institution (art*ist)
- Cognitive*Event (cog*evt)
- Event*Financial (evt*fin)
- Event*Natural (evt*nat)
- Event*Phenomenon (evt*phn)
- Event*State (evt*sta)

General instructions

- Linguistic tests for ontological types are provided below. To ensure accurate classification, annotators should apply them to the same noun meaning (particularly for ambiguous nouns) in the order indicated, starting with [Animate](#) (Section 3.1.2). If annotators cannot come to a decision about the ontological type of N, they must select the most likely option from the list above based on referential similarity with the prototypical denotation of each type. Nouns that are not specified ontologically, such as *échappatoire*, *component* or *mélange*, are labeled N/A (Not Applicable).
- Complex types such as Artefact*Cognitive and Event*Phenomenon are identified through copredication, which should be possible between exclusive predicates of each type. For example, *déclaration* is assigned the Cognitive*Event complex type (1). The possibility of having contextual underspecified interpretations (as opposed to ambiguous interpretations) between the multiple senses is also considered an indication of type complexity.

- (1) Le ministre des Finances [a fait]_{Event} une déclaration [selon laquelle le Brésil n'avait pas besoin de réforme fiscale]_{Cognitive}.

Collective nouns

- Some N have a plural reference when in the singular form. For example, *assistance* does not denote a single animate entity, but a group of animate entities. Accordingly, it is not assigned the Animate type, but the Animate-Collective one.
- Two tests (A and B) are provided in Section 3.1.1 to determine whether N is collective. The choice of the test depends on the ontological type of N (see Table 3.1 below). For complex ontological types (e.g., Evt*Sta), one or both facets should be examined to determine the collective status.
- Quantities cannot be collective.

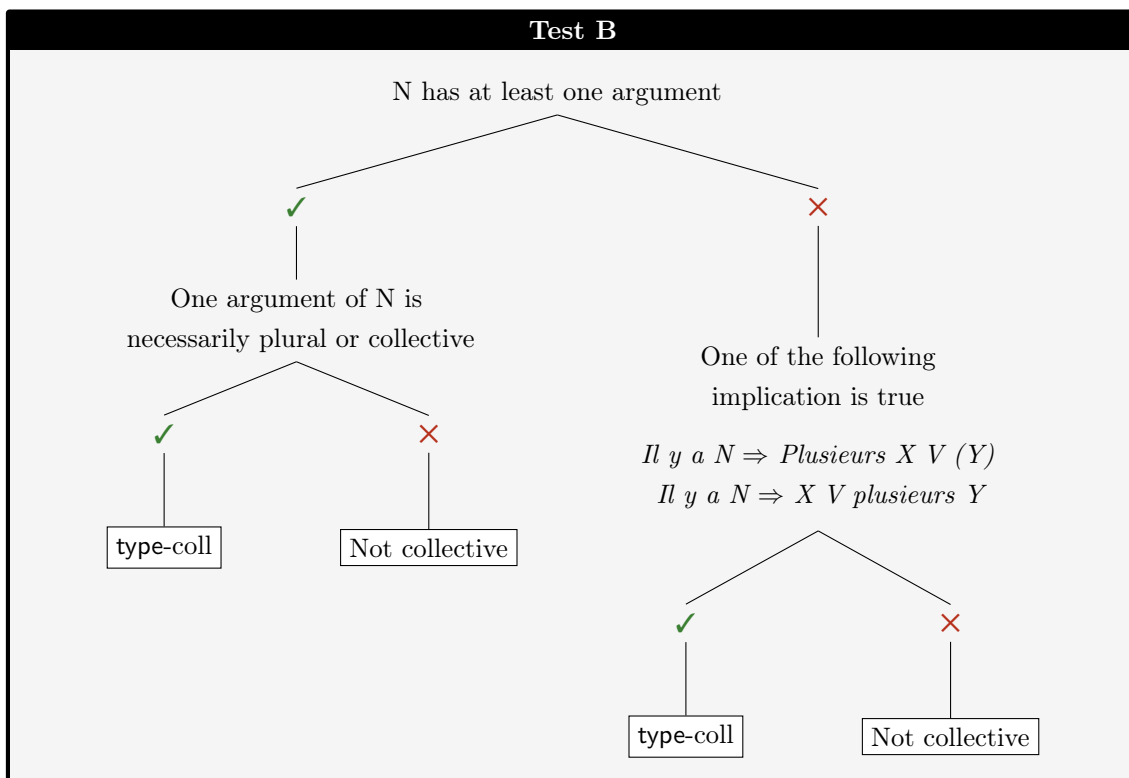
Noun Annotation Instructions

Type	Method	Type	Method	Type	Method
anm	A	ist	A	art*cog	A
art	A	nat	A	art*ist	A
cog	A	phn	B	cog*evt	A or B
dis	B	ppt	B	evt*fin	A or B
dom	B	qua	–	evt*nat	A or B
evt	B	sta	B	evt*phn	B
fin	A	tim	B	evt*sta	B

Table 3.1: Method to use to determine whether N is collective based on ontological type

3.1.1 Collective

Test A	
Le N s’est réuni + locative complement	
OR	
X a réuni le N + locative complement	
OR	
un N {nombreux/disparate}	
✓ → type-coll	✗ → Not collective



Possible locative complements *sur la table, à côté du sac, dans le jardin, à Paris, etc.*

Examples A

- (2) a. Le *bataillon* s'est réuni à Paris. ✓
 b. Pierre a réuni l'*équipement* dans le jardin. ✓
 c. un *groupement* nombreux ✓

Examples B

- (3) a. *manifestation* ✓ (evt-coll)
 – It has one argument.
 – The argument is necessarily plural (*manifestation des paysans* vs. ?*manifestation du paysan*).
 b. *bousculade* ✓ (evt-coll)
 – It has no arguments.
 – $Il\ y\ a\ une\ bousculade \Rightarrow Plusieurs\ personnes\ se\ bousculent$
 c. *ponaison* 'time of year' ✓ (evt-coll)
 – It has no arguments.
 – $Il\ y\ a\ la\ ponaison \Rightarrow Plusieurs\ poules\ pondent$

3.1.2 Animate

Test #1
<p>{Le/Ce} N {décide de/choisit de} V</p> <p>AND</p> <p>{Le/Ce} N + VP {volontairement/délibérément/consciemment}</p> <p>AND</p> <p>{Le/Ce} N a beaucoup mangé</p>
<p>✓ → <input type="text" value="anm"/> ✗ → <input type="text" value="Test #2a"/></p>

Prototypical denotation Animate entities, such as humans and animals

Examples #1

- (4)
 - a. Le *compositeur* {décide/choisit} de cuisiner un rôti. ✓
 - b. Le *compositeur* a délibérément cuisiné un rôti. ✓
 - c. Le *compositeur* a beaucoup mangé. ✓
- (5)
 - a. Le *ruminant* {décide/choisit} de sauter dans l'eau. ✓
 - b. Le *ruminant* a volontairement sauté dans l'eau. ✓
 - c. Le *ruminant* a beaucoup mangé. ✓
- (6)
 - a. La *classe* a {décide/choisit} de partir pour Rome. ✓
 - b. La *classe* a consciemment saboté l'expérience. ✓
 - c. La *classe* a beaucoup mangé. ✓

3.1.3 Artifact

Test #2a	
<p>X a {fabriqué/déchiré} Det N + locative or temporal complement</p> <p>OR</p> <p>X a construit Det N + substance + color</p> <p>OR</p> <p>X a confectionné Det N + aroma</p>	
✓ → Test #2b	✗ → Test #3a

Test #2b	
<p>(Det) N a été fondé en 1987</p> <p>OR</p> <p>X a été nommé à la tête de Det N</p>	
✓ → art*ist	✗ → Test #2c

Test #2c	
<p>Le N selon lequel P est difficile à admettre</p> <p>OR</p> <p>X écoute les N décousus de Y</p> <p>OR</p> <p>X a écrit un N {intéressant/pertinent}</p> <p>OR</p> <p>X a {visionné/écouté} un N piraté</p>	
✓ → art*cog	✗ → art

Prototypical denotation Concrete entities made by humans, such as objects, buildings, and meals

Possible locative complements *sur la table, à côté du sac, dans le jardin, à Paris, entre la table et le mur, en Europe, etc.*

Possible temporal complements *ce matin, hier soir, lundi, à 14h00, etc.*

Possible substances *en bois, en or, en béton, en verre, en pierre, en plastique, en argent, en inox, etc.*

Possible colors *violet, orange, rouge, marron, vert, bleu, doré, argenté, multicolore, noir, blanc, etc.*

Possible aromas *au chocolat, à la rose, à la fraise, à la muscade, à la moutarde, au paprika, au caramel, au cumin, etc.*

Examples #2a

- (7) a. Marie a fabriqué une *génératrice* dans son garage. ✓
- b. Pierre a déchiré l'*ordonnance* ce matin. ✓
- c. Ils ont construit des *logements* gris en béton préfabriqué. ✓
- d. Les enfants ont confectionné une *torsade* au chocolat. ✓

Examples #2b

- (8) a. Le *restaurant* a été fondé en 1987. ✓
- b. Pierre a été nommé à la tête de la *fondation*. ✓
- (9) Le *restaurant* [situé dans cette rue]_{art} [a été fondé en 1987]_{ist}. ✓ (copredication)

Examples #2c

- (10) a. Le *jugement* selon lequel j'ai tort est difficile à admettre. ✓
- b. Marie écoute les *justifications* décousues de Vincent. ✓
- c. Pierre a écrit une *dissertation* intéressante. ✓
- d. Camille a visionné un *documentaire* piraté. ✓
- (11) L'*attestation* [déchirée]_{art} [avait été rédigée]_{cog} par mon médecin. ✓ (copredication)

3.1.4 Natural

Test #3a
<div style="border: 1px solid black; padding: 10px; margin: 0 auto; width: 80%;"> <p>{Le/Ce} N se trouve + spatial locative complement</p> <p>AND</p> <p>un N + dimensional complement</p> </div> <p>OR</p>

<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>{Le/Ce} N se trouve + spatial locative complement</p> <p>AND</p> <p>dimensional quantifier + de N</p> </div> <p>OR</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>{Le/Ce} N se trouve + spatial locative complement</p> <p>AND</p> <p>Un N de quinze X</p> </div>
<div style="display: flex; justify-content: space-around; align-items: center;"> ✓ → Test #3b ✗ → Test #4a </div>

Test #3b
<p>{Le/Ce} N {a eu lieu/s'est produit} à tel {moment/endroit}</p> <p>OR</p> <p>X a {effectué/procédé à/accompli} un N + expansion</p>
<div style="display: flex; justify-content: space-around; align-items: center;"> ✓ → evt*nat ✗ → nat </div>

Prototypical denotation Concrete entities that are not made by humans, such as natural substances, living organisms, and natural locations

Possible spatial locative complements *sur la table, à côté du sac, dans le jardin, à Paris, entre la table et le mur, en Europe, près du poumon droit, etc.*

Possible dimensional complements *de x mètres de large, de x m2, de x m3, de x hectares, de x grammes, de x kilos*, where *x* is a numeral determiner

Possible dimensional quantifiers *x {m/m2/m3/hectares} de N, x grammes de N, x kilos de N, x tonnes de N*, where *x* is a numeral determiner

Examples #3a

- (12) a. La *nageoire* se trouve sur le dos du poisson. ✓
 b. une *nageoire* de 10 mm de large ✓
- (13) a. Cet *éboulis* se trouve au-dessus du village. ✓
 b. 150 m3 d'*éboulis* ✓

- (14) a. Le *couvain* se trouve dans la ruche. ✓
 b. un *couvain* de 15 rayons ✓
- (15) a. #Cette *idée* est dans l'air depuis un moment. ✗ (metaphorical interpretation)
 b. ?une *idée* de {20 grammes/4 m3} ✗
- (16) a. ?Cette *maladie* se trouve en Europe. ✗
 b. ?une *maladie* de {20 grammes/4 m3} ✗

Examples #3b

- (17) a. L'*inflammation* s'est produite près du poumon droit. ✓
 b. L'*éboulement* a eu lieu hier matin. ✓
- (18) a. L'*inflammation*, [qui s'est produite dans une zone délicate]_{evt}, [s'étend sur tout le bras]_{nat}. ✓ (copredication)
 b. L'*éboulement*, [qui s'est produit dans la nuit]_{evt}, [s'étend sur quelques dizaines de mètres]_{nat}. ✓ (copredication)

3.1.5 Event

Test #4a	
{Le/Ce} N {a eu lieu/s'est produit} + locative or temporal complement	
OR	
X a {effectué/procédé à/accompli} un N + expansion	
✓ →	✗ →
Test #4b	Test #5

Test #4b

X {ressent/éprouve} {du/un} N + expansion

OR

X est dans un état de N + expansion

OR

Son N a duré x temps

OR

Pendant son N, P

✓ → evt*sta

✗ → Test #4c

Test #4c

X a entendu un N
{tonitruant/strident/mélodieux/aigu/grave}

AND

Un N {a retenti/a résonné/s'est propagé}
{au fond du couloir/dans la cour}

OR

X a vu un N {aveuglant/éblouissant/blafard/pâle}

AND

Det N {a resplendi/s'est propagé/
a scintillé/a jailli} au fond du couloir

OR

X a senti un N
{nauséabond/âcre/enivrant/tenace/entêtant}

AND

Det N {s'est répandu/persiste/embaume}
(dans) la pièce

✓ → evt*phn

✗ → Test #4d

Test #4d
<p>Le N selon lequel P est difficile à admettre</p> <p>OR</p> <p>X écoute les N décousus de Y</p> <p>OR</p> <p>X a écrit un N {intéressant/pertinent}</p>
<p>✓ → cog*evt ✗ → Test #4e</p>

Test #4e
<p>X a versé Det N en euros</p> <p>OR</p> <p>X a obtenu Det N modique</p> <p>OR</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>Le N est la monnaie de tel pays</p> <p>AND</p> <p>Quel est le taux de change du N?</p> </div>
<p>✓ → evt*fin ✗ → evt</p>

Remark In Test #4b, *a duré* et *pendant* should entail a stative (vs. dynamic) interpretation.

Prototypical denotation Dynamic situations in which an event occurs or an action is performed

Possible locative complements *sur la table, à côté du sac, dans le jardin, à Paris, entre la table et le mur, en Europe*, etc.

Possible temporal complements *ce matin, hier soir, lundi, à 14h00*, etc.

Examples #4a

- (19) a. L'*accouchement* a eu lieu à l'hôpital. ✓
 b. La *transformation* s'est produite ce matin. ✓
- (20) a. La mécanicienne a effectué une *réparation* délicate. ✓
 b. L'entreprise a procédé à un *licenciement* collectif. ✓
 c. Sacha a accompli un *exploit* historique. ✓

Examples #4b

- (21) a. Je ressens un fort *désenchantement*. ✓
 b. La falaise est dans un état de *dégradation* perpétuel. ✓
 c. Sa *disparition* a duré deux heures. ✓
 d. Pendant son *emprisonnement*, Pierre a appris la couture. ✓
- (22) a. #La *manifestation* a duré trois heures. ✗ (dynamic interpretation)
 b. #Jeanne s'est endormie pendant son *massage*. ✗ (dynamic interpretation)
- (23) La *coupure* de courant [qui a eu lieu hier]_{evt} [a duré deux heures]_{sta}. ✓ (copredication)

Examples #4c

- (24) a. On a entendu un *crissement* strident. ✓
 b. Un *crissement* a résonné dans la cour. ✓
- (25) a. On a vu une *illumination* éblouissante. ✓
 b. L'*illumination* s'est propagée au fond du couloir. ✓
- (26) a. On a senti un *pet* nauséabond. ✓
 b. Son *pet* embaume la pièce. ✓
- (27) La *sonnerie* [qui s'est produite inopinément pendant son discours]_{evt} [a résonné dans toute la salle]_{phn}. ✓ (copredication)

Examples #4d

- (28) a. L'*affirmation* selon laquelle l'embargo était légal est difficile à admettre. ✓
 b. Camille écoute les *accusations* décousues de l'enquêteur. ✓
- (29) Elle [a lu]_{cog} la *déposition* [effectuée par le jeune homme]_{evt}. ✓ (copredication)

Examples #4e

- (30) a. Elle a versé un *financement* en euros. ✓
 b. Il a obtenu un *financement* modique. ✓
- (31) Elle [a effectué]_{evt} un *versement* [modique]_{fin}. ✓ (copredication)

3.1.6 Domain

Test #5	
X fait du N	
OR	
X a reçu une formation en N	
✓ → dom	✗ → Test #6

Remark The verb *faire* in Test #5 cannot be interpreted as ‘fabriquer’ or ‘avoir’.

Prototypical denotation Activities and fields of expertise

Examples #5

- (32) a. Pierre fait du *jardinage* tous les week-ends. ✓
 b. Pierre fait de la *natation* le mardi matin. ✓
- (33) a. Pierre a reçu une formation en *traduction*. ✓
 b. Pierre a reçu une formation en *peinture*. ✓
- (34) a. #Pierre fait du *porridge*. (= Pierre fabrique du *porridge*.) ✗
 b. #Pierre fait de l'*eczéma*. (= Pierre a de l'*eczéma*.) ✗

3.1.7 Property

Test #6	
X est d'un grand N	
OR	
Det X est d'un grand N	
OR	
X a fait preuve {de N/d'un N} + expansion	
OR	
Cela m'a altéré le N	
✓ → ppt	✗ → Test #7

Remark In Test #6, *Pierre est d'un grand N* must be synonymous with *Pierre a du N* (35a) vs. (36a).

Prototypical denotation Physical and psychological qualities

Examples #6

- (35) a. Pierre est d'une grande *méfiance* envers les charlatans. (= Il a de la *méfiance* envers les charlatans.) ✓
 b. Cet exercice est d'une grande *simplicité*. ✓
 c. Pierre a fait preuve de beaucoup de *jugeote*. ✓
 d. Cela m'a altéré {le *goût*/la *mémoire*}. ✓
- (36) a. #Marie est d'une grande *famille* de peintres. (≠ ?Marie a de la *famille* de peintres) ✗
 b. #Marie est d'une grande *aide*. (≠ Marie a de l'*aide*) ✗

3.1.8 State

Test #7	
X {ressent/éprouve} {du/un} N + expansion	
OR	
X est dans un état de N + expansion	
✓ → sta	✗ → Test #8

Prototypical denotation Feelings, physical and psychological states

Examples #7

- (37) a. Pierre éprouve une vive *crainte* à l'idée de partir. ✓
 b. Pierre ressent une *fascination* toute particulière pour le dessin. ✓
- (38) a. La maison est dans un état d'*encombrement* impressionnant. ✓
 b. Le patient est dans un état de *conscience* minimale. ✓

3.1.9 Institution

Test #8	
(Det) N a été fondé en 1987	
OR	
X a été nommé à la tête de (Det) N	
✓ → <input type="text" value="ist"/>	✗ → <input type="text" value="Test #9"/>

Prototypical denotation Institutes, associations, administrations, governments, clubs, societies

Examples #8

- (39) a. L'*association* a été fondée en 1987. ✓
 b. Marie a été nommée à la tête de l'*association*. ✓

3.1.10 Phenomenon

Test #9	
On a entendu un N {tonitruant/strident/mélodieux/aigu/grave}	
AND	
Un N {a retenti/a résonné/s'est propagé} {au fond du couloir/dans la cour}	
OR	
On a vu un N {aveuglant/éblouissant/blafard/pâle}	
AND	
Det N {a resplendi/s'est propagé/ a scintillé/a jailli} au fond du couloir	
OR	

On a senti un N
 {nauséabond/âcre/enivrant/tenace/entêtant}

AND

Det N {s'est répandu/persiste/embaume}
 (dans) la pièce

✓ → phn ✗ → Test #10

Prototypical denotation Noises and sounds, lights, smells

Examples #9

- (40) a. On a entendu un *gazouillis* mélodieux. ✓
 b. Un *gazouillis* s'est propagé dans la cour. ✓
- (41) a. On a vu une *lueur* blafarde. ✓
 b. Une *lueur* a scintillé au fond du couloir. ✓
- (42) a. On a senti un *pet* nauséabond. ✓
 b. Un *pet* embaume la pièce. ✓

3.1.11 Cognitive

Test #10

Le N selon lequel P est difficile à admettre

OR

X écoute les N décousus de Y

OR

X a écrit un N {intéressant/pertinent}

OR

X a {visionné/écouté} un N piraté

✓ → cog ✗ → Test #11

Prototypical denotation Informational contents, ideas, opinions, textual, cultural or artistic objects

Examples #10

- (43) a. Le *raisonnement* selon lequel ce virus a été fabriqué est difficile à admettre. ✓
 b. Marie écoute les *arguments* décousus de Vincent. ✓
 c. Pierre a écrit une *conclusion* pertinente. ✓
 d. Camille a visionné un *documentaire* piraté. ✓

3.1.12 Financial

Test #11

Il a versé Det N en euros

OR

Il a obtenu {un/une} N modique

OR

Le N est la monnaie de tel pays

AND

Quel est le taux de change du N?

✓ → fin
✗ → Test #12

Prototypical denotation Money systems

Examples #11

- (44) Il a versé la *redevance* en euros. ✓
 (45) Il a obtenu un *rendement* modique. ✓
 (46) a. Le *franc* est la monnaie de la Suisse. ✓
 b. Quel est le taux de change du *franc*? ✓

3.1.13 Time

Test #12	
<p>Ils se sont rencontrés {N/courant N/Det N/Det N durant/à N}</p>	
OR	
<p>Attendez un bref N</p>	
✓ → tim	✗ → Test #13

Prototypical denotation Punctual or durative moments

Examples #12

- (47) a. Ils se sont rencontrés {*mardi*/courant *janvier*/l'*hiver* dernier/trois *jours* durant/à *midi*}. ✓
b. Attendez un bref {*instant*/*moment*}. ✓

3.1.14 Quantity

Test #13	
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>Un(e) {courant/poids/lumière/intensité/tension/distance/ période/vitesse} de x N, c'est {peu/beaucoup}</p> </div>	
AND	
<p>Ce N2 {mesure/fait/pèse/dure} x N</p>	
OR	
<p>Un N de N3, c'est {peu/beaucoup}</p>	
✓ → qua	✗ → Test #14

Remarks

- *x* is a numeral determiner (e.g., *mille*, *un*, *cinquante*, etc.).
- *N2* is an artifact, a natural object or an animate entity, such as *table*, *pont*, *léopard*, *personne*, etc.

- *N3* is a quantified element, such as *farine*, *huile*, *sable*, *message(s)*, *image(s)*, *cheminée(s)*, *projectile(s)*, *juriste(s)*.

Prototypical denotation Units of measurement

Examples #13

- (48) a. Un poids de 100 *kilogrammes*, c'est beaucoup. ✓
 b. Ce léopard pèse 45 *kilogrammes*. ✓
- (49) a. Une *pincée* de sel, c'est peu. ✓
 b. Une *tombée* de cognac, c'est peu. ✓

3.1.15 Disease

Test #14	
Le N {est/n'est pas} une maladie contagieuse	
AND	
X a guéri {du/de la} N	
AND	
Le médecin m'a diagnostiqué un N	
✓ → <input type="text" value="dis"/>	✗ → <input type="text" value="untagged"/>

Prototypical denotation Medical conditions

Examples #14

- (50) a. La *pelade* {est/n'est pas} une maladie contagieuse. ✓
 b. Camille a guéri de la *pelade*. ✓
 c. Le médecin m'a diagnostiqué une *pelade*. ✓
- (51) a. #La *timidité* n'est pas une maladie contagieuse. ✗
 b. ?Valéry a guéri d'une *timidité*. ✗
 c. ?Le médecin m'a diagnostiqué une *timidité*. ✗

3.2 Relation

Criterion Semantic relation of N to the base verb

Label /N_RELATION/

Options

- any relation from the list below
- relation-fig in case of figurative extension

List

- Agent (agt)
- Beneficiary (ben)
- Cause (cau)
- Destination (des)
- Experiencer (exp)
- Extent (ext)
- Instrument (ins)
- Location (loc)
- Manner (man)
- Path (pth)
- Patient (pat)
- Pivot (pvt)
- Result (res)
- Source (src)
- Stimulus (sti)
- Theme (thm)
- Topic (tpc)
- Transposition (tsp)

Examples

N	Relation	Justification
<i>organisateur</i>	agt	Entity that intentionally brings about the event denoted by <i>organiser</i>
<i>légataire</i>	ben	Entity that is advantaged by the event denoted by <i>léguer</i>
<i>agglutinine</i>	cau	Entity that is the reason why the event denoted by <i>agglutiner</i> occurs
<i>récepteur</i>	des	Endpoint in the change of location denoted by <i>recevoir</i>
<i>admiratrice</i>	exp	Entity that is in the state denoted by <i>admirer</i> in relation to a psychological stimulation
<i>contenance</i>	ext	Extensive value related to an event, or measurable magnitude of a change of state or location
<i>fixation</i>	ins	Entity that is manipulated in order to perform the action denoted by <i>fixer</i>
<i>patinoire</i>	loc	Entity that serves as a landmark to locate the event denoted by <i>patiner</i>
<i>prononciation</i>	man	The way the action denoted by <i>prononcer</i> is performed
<i>passage</i>	pth	Trajectory followed during the change of location denoted by <i>passer</i>
<i>mourant</i>	pat	Entity that undergoes a change of structure during the event denoted by <i>mourir</i>
<i>composante</i>	pvt	Entity that is attributed the property denoted by <i>composer</i>
<i>gribouillage</i>	res	Entity that is created through the event denoted by <i>gribouiller</i>
<i>puisard</i>	src	Starting point in the change of location denoted by <i>puiser</i>
<i>embêtement</i>	sti	Entity that causes the psychological state denoted by <i>embêter</i>
<i>roulotte</i>	thm	Entity that changes location during the event denoted by <i>rouler</i>
<i>devinette</i>	tpc	Entity that is the subject of the cognitive activity denoted by <i>deviner</i>
<i>digestion</i>	tsp	Event similar to the one denoted by <i>digérer</i>

Table 3.2: Relational types

Figurative extension

- N is considered figurative when the following conditions are fulfilled:
 - (i) N is one of the meanings of a polysemous noun;
 - (ii) N is a metaphorical or metonymic extension of another sense of the polysemous noun;
 - (iii) N does not seem to derive directly from the base verb associated with the polysemous noun.
- If N is figurative, it is assigned the relational type of the noun sense from which it is semantically derived, combined with the additional label –Figurative. For example, the noun *lacet* (derived from *lacer*) has arguably two senses: ‘shoelace’ and ‘zigzag’. The

first sense denotes an instrument with which the action of lacing up is performed and is thus assigned the Instrument relational type. The second sense is a metaphorical extension of the first and is thus assigned the Instrument-Figurative relational type.

Transposition

- N is considered transpositional if it denotes an eventuality and is a semantic transposition of its base verb, i.e., if it describes the same type of eventuality as the base verb and preserves the dynamicity/stativity feature of the base verb. For example, *accouchement* (evt-tsp), *méfiance* (sta-tsp) and *méconnaissance* (ppt-tsp) are all transpositional.
- Complex types that include an event type are annotated as transpositional if they preserve the dynamicity feature of the base verb. For example, *humidification* (evt*sta-tsp) and *saignement* (evt*nat-tsp) are transpositional.

3.3 Dynamicity

Criterion Dynamicity of N

Label /N_DYN/

Options

- \boxed{y} = N denotes a dynamic eventuality
- \boxed{n} = N denotes a static eventuality
- $\boxed{N/A}$ = N has no aspectual properties

Interdependence

- The Dynamicity Test is performed on Domain, Event, Property, State, Cognitive*Event, Event*Financial, Event*Natural, Event*Phenomenon, and Event*State.
- Domain, Event, Cognitive*Event, Event*Financial, Event*Natural, Event*Phenomenon, and Event*State are dynamic: \boxed{y} to Dynamicity.
- Property and State are stative: \boxed{n} to Dynamicity.

Test

Dynamicity Test
$\{Le/Ce\} N \{a \text{ eu lieu/s'est produit}\} \text{ à tel } \{\text{moment/endroit}\}$ OR $X \{a \text{ procédé à/a accompli}\} \text{ un } N + \text{expansion}$ OR

X a fait du N toute la journée
✓ → y ✗ → n

Remark In *X a fait du N toute la journée*, *faire* should not be interpreted as ‘avoir’ or ‘fabriquer’ (55).

Examples

- (52) a. La *caramélisation* s’est produite au bout de quelques minutes. ✓
b. La *perte* des clefs a eu lieu à la bibliothèque. ✓
- (53) a. Sacha a effectué une longue *promenade*. ✓
b. Valéry a accompli un *miracle*. ✓
- (54) a. Sacha a fait du *jardinage* toute la journée. ✓
b. Valéry a fait du *bricolage* tout le weekend. ✓
- (55) a. #Joël a fait de la *fièvre*. (= Joël a eu de la *fièvre*) ✗
b. #Elle a fait du *pain*. (= Elle a fabriqué du *pain*) ✗

3.4 Durativity

Criterion Durativity of N

Label /N_DUR/

Options

- y = N denotes a durative eventuality
- n = N denotes a non-durative eventuality
- N/A = N has no relation to time

Interdependence

- The Durativity Test is performed on Domain, Event, State, Cognitive*Event, Event*Financial, Event*Natural, Event*Phenomenon, and Event*State. It does not apply to Property: N/A to Durativity.
- Domain and State are durative: y to Durativity.

Test

Durativity Test
Le N a duré x temps
OR
un N de x temps
OR
Le N s'est déroulé à tel endroit
OR
x temps de Nsg
✓ → y ✗ → n

Remarks

- x *temps* is a duration expression in which x is a numeral determiner and *temps* is a temporal unit (e.g., *seconde*, *minute*, *heure*, *jour*, *mois*).
- Durativity should relate to a dynamic process (vs. a post-phase).

Examples

- (56) a. La *manifestation* a duré deux heures. ✓
b. La *caramélisation* a duré dix minutes. ✓
- (57) a. un *accouchement* de huit heures ✓
b. une *réunion* de deux heures ✓
- (58) a. La *rencontre* des linguistes s'est déroulée à Genève. ✓
b. Le *match* s'est déroulé à St-Léonard. ✓
- (59) a. deux heures de *jardinage* ✓
b. six mois d'*apprentissage* ✓
- (60) a. ?une *liberté* de plusieurs jours ✗
b. ?L'*arrivée* du coureur a duré deux heures. ✗
c. #La *disparition* de la jeune fille a duré trois jours. ✗ (post-phase)

3.5 Telicity

Criterion Telicity of N

Label /N_TEL/

Options

- \boxed{y} = N denotes a telic eventuality
- \boxed{n} = N denotes an atelic eventuality
- \boxed{v} = N denotes an eventuality of variable telicity
- $\boxed{N/A}$ = N has no relation to time

Interdependence

- The Telicity Tests are performed on Domain, Event, State, Cognitive*Event, Event*Financial, Event*Natural, Event*Phenomenon, and Event*State. They do not apply to Property: $\boxed{N/A}$ to Telicity.
- Domain and State are atelic: \boxed{n} to Telicity.
- Dynamic non-durative eventualities are telic: \boxed{y} to Dynamicity and \boxed{n} to Durativity → \boxed{y} to Telicity.

Tests

Telicity Test #1	
Le N a été interrompu ⇒ X a Vé (Arg)	
✓ → $\boxed{\text{Test \#2}}$	✗ → \boxed{y}

Telicity Test #2	
un N en x temps	
✓ → \boxed{v}	✗ → \boxed{n}

Remarks

- x *temps* is a duration expression in which x is a numeral determiner and *temps* is a temporal unit (e.g., *seconde*, *minute*, *heure*, *jour*, *mois*).
- Possible internal arguments complementing the tested N should be delimited (e.g., *construction d'une maison* vs. *construction de maisons*).
- When performing Telicity Test #1, the partial realization of an incremental action should not be considered (62d).

- N that denote eventualities of variable telicity can often be modified with *fort* (e.g., *une forte caramélisation*).

Examples #1

- (61) a. La *manifestation* a été interrompue. \Rightarrow Ils ont manifesté. ✓
 b. Le *jardinage* a été interrompu. \Rightarrow On a jardiné. ✓
 c. La *caramélisation* du sucre a été interrompue. \Rightarrow Le sucre a caramélisé. ✓
 d. L'*augmentation* du prix du lait a été interrompue. \Rightarrow Le prix du lait a augmenté. ✓
- (62) a. L'*accouchement* de Marie a été interrompu. \nRightarrow Marie a accouché. ✗
 b. L'*exécution* du condamné a été interrompue. \nRightarrow Le condamné a été exécuté. ✗
 c. La *réparation* de la voiture a été interrompue. \nRightarrow On a (intégralement) réparé la voiture. ✗
 d. La *construction* de la maison a été interrompue. \nRightarrow On a (intégralement) construit la maison. ✗

Examples #2

- (63) a. une *caramélisation* du sucre en 12 minutes ✓
 b. une *augmentation* du prix du gaz en deux ans ✓
- (64) a. ?une *manifestation* en deux heures ✗
 b. ?un *jardinage* en deux heures ✗

3.6 Post-phase

Criterion Post-phase of N

Label /N_POST_PHASE/

Options

- \boxed{y} = N denotes an eventuality that includes a post-phase
- \boxed{n} = N denotes an eventuality that does not include a post-phase
- $\boxed{N/A}$ = N cannot include a post-phase in its denotation

Interdependence

- The Post-Phase Test is performed on Domain, Event, State, Cognitive*Event, Event*Financial, Event*Natural, Event*Phenomenon, and Event*State. It does not apply to Property:
 \boxed{ppt} to **Ontological type** \rightarrow $\boxed{N/A}$ to Post-phase.

- Atelic nouns cannot include a post-phase: n to Telicity → n to Post-phase.
- A post-phase implies that the N has both an event facet and a stative facet (e.g., *emprisonnement*, *banalisation*): y to Post-phase → evt*sta to [Ontological type](#). The opposite is not necessarily true: for example, *remplissage* is evt*sta but does not have a post-phase.

Test

Post-Phase Test	
Dét N (+ expansion) a duré x temps	
✓ → y	✗ → n

Remark

- *x temps* is a duration expression in which *x* is a numeral determiner and *temps* is a temporal unit (e.g., *seconde*, *minute*, *heure*, *jour*, *mois*).
- Durativity should not be related to a dynamic process.
- The state related to the post-phase is generally reversible (e.g., *emprisonnement*, *disparition*, *exclusion*).

Examples #1

- (65) a. Son *emprisonnement* a duré trois ans. ✓
b. La *disparition* du chat a duré deux heures. ✓
c. L'*exclusion* de l'élève a duré deux jours. ✓
- (66) a. #Son *accouchement* a duré quatre heures. ✗
b. #La *démolition* de l'immeuble a duré deux semaines. ✗
c. #La *réparation* de la voiture a duré deux jours. ✗

3.7 Semantic Roles

Criterion Semantic role of the first, second and third arguments of N

Labels

- /N_ROL_ARG1/ = only argument of N (e.g., *éternuement de Pierre*), or internal argument if N has two or three arguments (e.g., *opération du patient*, *insertion de la pile*)

- /N_ROL_ARG2/ = external argument if N has two arguments (e.g., *opération de la chirurgienne*), or oblique argument if N has three arguments (e.g., *insertion dans le compartiment*)
- /N_ROL_ARG3/ = external argument if N has three arguments (e.g., *insertion par Pierre*)

Options

- any role from the list below
- N/A if there is no argument

List

- Agent (agt)
- Beneficiary (ben)
- Cause (cau)
- Destination (des)
- Experiencer (exp)
- Extent (ext)
- Instrument (ins)
- Location (loc)
- Manner (man)
- Path (pth)
- Patient (pat)
- Pivot (pvt)
- Result (res)
- Source (src)
- Stimulus (sti)
- Theme (thm)
- Topic (tpc)

Remarks Argument structures with maximal extension are described, independently of their frequency of realization in corpus data.

Examples

	Argument #1			Argument #2			Argument #3		
<i>éternuement de X</i>	X	→	cau			NA			NA
<i>opération de Y par X</i>	Y	→	pat	X	→	agt			NA
<i>insertion de Y dans Z par X</i>	Y	→	thm	Z	→	des	X	→	agt

Table 3.3: Nominal arguments

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