GENERAL PRINCIPLES

1) We annotate epistemic constructions

2) Epistemic constructions are particular cases of modal constructions

3) Modality is the expression of the operation of validation of a representation

4) A validation is:

- **alethic**, when it is put forward by the speaker as an objective truth (alethic modality):
  
  (1) the man washes dishes

- **epistemic**, when it is put forward by the speaker through the expression her opinion about its truth:
  
  (2) the man is probably washing dishes

- **evidential**, when it is put forward by the speaker with the support of evidence about the truth of the representation:
  
  (3) I was told the man was washing dishes

- **appreciative**, when it is put forward by the speaker through the expression of her opinion about the aesthetic or practical qualities of the representation:
  
  (4) I am happy that the man washes dishes

- **axiological** when it is put forward by the speaker through the expression of her opinion about the moral qualities of the representation:
  
  (5) It is fair that the man washes dishes

- **volitional**, when it is put forward by the speaker through the expression of her will concerning the realization (or not realization) of the representation
  
  (6) I wish the man washes dishes

- **deontic**, when it is put forward by the speaker in her act of directing the expression of her will concerning the realization of the representation toward a responsible agent:
  
  (12) hey man, you should wash dishes
5) **We only annotate the expression of epistemic and evidential validations** (cfr. Boye’s notion of epistemicity).

We annotate

A: Tu connais mon père? (epistemic)
B: oui

We annotate

A: J’ai vu qu’il est rentré (evidential)

We do not annotate

A: Faut que je lui dise quelque chose? (deontic)
B: oui, ça serait bien

We do not annotate

A: Je pense que c’est bien comme ça (axiological)

6) **Henceforth we will use the label “epistemic” to indicate both epistemic and evidential modality.**

7) The epistemic validation of a representation (as well as any modal validation) is expressed by a construction analysable in a marker, a scope and a relation between the marker and the scope.

8) For each epistemic construction we annotate the span of text corresponding to the marker, the span of text corresponding to the scope and the relation between them.

8) An epistemic marker may belong to any level of linguistic structure:

- morphemes (e.g. the epistemic future, “on a sonné. Ce sera le facteur”, the conditional “D’après les indiscrétions, il serait déjà à la maison”)
- periphrastic constructions (e.g., modal verbs, “Il a du se rendre compte qu’il avait fait une bêtise”)
- lexemes (e.g. complement taking predicates, “Paul m’a dit qu’il reste chez lui ce soir”, adverbs “Vous m’avez probablement dit, mais j’ai complètement oublié”, discourse markers, “A : On va travailler dur aujourd’hui, hein ? B : bah, oui, tout à fait”)
- entire utterances “L’atome n’est pas un élément indivisible. On le sait depuis longtemps,”
- syntactic constructions,(e.g. interrogative constructions “Est-ce que ce bus-là amène à la gare ?”, list constructions “A : Il a quinze ans B : quinze ans ”)
- prosodic constructions “Ce bus-là amène à la gare ?”

9) For the sake of simplicity, we only annotate constructions having a propositional scope. We do not annotate the epistemic validation of an entity:

- We annotate J’ai appris qu’il est rentré (apprendre scopes over a proposition)
- We do not annotate J’ai appris la leçon (apprendre scopes over an entity)
10) In dialogue the epistemic validation of a representation is often co-constructed. When two or more speakers validate collectively a representation they contribute at the grounding of that representation in a common ground. In a dialogical perspective, epistemic constructions can be regarded as those constructions that signal the process of construction of mutual knowledge, mutual beliefs, and mutual assumptions.

PROCEDURE

Identification of the epistemic constructions to be annotated

STEP 1. Identification of the epistemic markers occurring in the text to be annotated (every epistemic marker entails the existence of an epistemic construction)

Let $p$ be the linguistic encoding of a representation in the text to be annotated (txt)

1. Do you see in txt an expression, $m$, marking the opinion of the speaker or of another source about $p$? NO 2, YES 3
2. Do not annotate.
3. Does this opinion concern the aesthetic or practical quality of $p$? YES 2, NO 4
4. Does this opinion concern the moral quality of $p$? YES 2, NO 5
5. Does this opinion concern the truth of $p$? YES 6, NO 10
6. Does $p$ represent a non propositional entity (e.g. je ne comprends pas [le sens]$p$, je ne sais pas [où il est en ce moment]$p$)? YES, 2, NO 7
7. Does $p$ represent an unachieved sequence? “je crois que il est ] YES, 8, NO 9
8. Add the symbol & to the transcription to the end of $p$ “je crois que il est &] and go to 9
9. Annotate $m$ as the marker of the construction and $p$ as the scope of the construction. Annotate the relation between $m$ and $p$. “{[je crois que]$m$ [il est &]$p$}rel MOVE TO 11.
10. Case to be discussed. MOVE TO 11.

STEP 2. Annotation of the properties of the marker

2a Attribution of the form

11. the form of $m$, i.e., the concrete linguistic realization of its occurrence is attributed automatically by the software. MOVE TO 12.

2b Attribution of the lemma:

12. does the lexical nature of $m$ play a role in the validation of $p$? NO go to 13, YES go to 14
13. choose the property “ninfluuent”. Prosody “Aurélie elle travaille pas aujourd’hui ?” Syntax (e.g. list) “A: Nous allons déménager le mois prochain B: le mois
2d Attribution of the morphosyntactic properties:

14. indicate the French lemma (the dictionary lexical entry) to which \( m \) can be brought back. “hein” = hein; “tout à fait” = tout à fait; “ouais” = oui; “il m’a dit que” = dire; “. Move to 16.

2c Attribution of the archi-unit:

15. choose among the list of values available in the pop menu. Move to 17.
16. indicate the English translation of the French lemma (in 3a). e.g. oui→YES, savoir→KNOW, etc. Move to 18.

2d Attribution of the morphosyntactic properties:

17. is the epistemic interpretation triggered by the morphological nature of \( m \)? YES 18, NO 22
18. is \( m \) a future tense? “Ce sera le facteur” YES choose the value future and move to 34, NO go to 19
19. is \( m \) a conditional mood? “A : Ce que Pierre dit est vrai, il a ses sources. B : Et quelles seraient ces sources?” YES choose the value conditional and move to 34, NO go to 20
20. is \( m \) an imperfect tense? Il n’était pas à la maison YES choose the value imperfect and move to 34, NO go to 21
21. case to be discussed, move to 34
22. is the epistemic interpretation triggered by the syntactic nature of \( m \)? YES 23, NO
23. is \( m \) a list? “ça va tes études? B : ça va” YES choose the value list and move to 34, NO 24
24. is \( m \) a syntactically marked interrogative construction? “Peut-on arriver à l’hotel depuis l’aéroport sans voiture?” YES choose the value syntactic_interrogative_construction and move to 34, NO 25
25. cases to be discussed, move to 34
26. is the epistemic interpretation triggered by the prosodic nature of \( m \)? YES 27
27. is \( m \) a prosodically marked interrogative construction? “Tu viens au cinéma avec nous cet après-midi ?” YES choose the value prosodic_interrogative_construction and move to 34
28. is the epistemic interpretation triggered by a periphrastic construction comprised by modal verb (devoir, pouvoir) + an infinitive? “Les clés doivent être sur la table” YES choose the value Modal_verb and move to 34 NO, 29
29. is the epistemic interpretation triggered by an adjunct syntactically and semantically dependent on the syntactic construction in \( p \)? “La hausse des prix est probablement une conséquence de la crise” YES choose the value adverb and move to 34, NO 30
30. is the epistemic interpretation triggered by an adjunct syntactically independent, but semantically dependent on the syntactic construction in \( p \)? “A : Marthe est un peu malade et ne va pas prendre des risques aujourd’hui B : oui, je comprends” YES choose the value discourse_marker and move to 34, NO 31
31. is the epistemic interpretation triggered by a complement taking predicate, i.e; “Marie m’a dit que son voyage a été très bien”; “Je ne sais pas si vous avez vu Pierre quelque part” YES choose the value CTP and move to 34, NO 32
32. is the epistemic interpretation triggered by a complete utterance, i.e., by an expression whose semantic and syntactic valency is saturated, which is only discursively related to \( p \)? “\( A \) : La police a découvert que M. Guyon était le coupable \( B \): \( C'était évident\)” YES choose the value utterance and move to 34, NO 33

33. cases to be discussed, move to 34

STEP 3 Annotation of the properties of the scope

34. Nothing for the moment. move to 35

STEP 4 Annotation of the properties of the relation

4a Attribution of the direction

35. Is \( m \) located at the left of \( p \)? “\( Il\ avait\ compris\ que\ c'était\ entièrement\ sa\ faute\)” YES go to 36, NO go to 37
36. choose the value L>R and move to 43
37. Is \( m \) located at the right of \( p \)? “\( Il\ reste\ encore\ de\ vaisselle\ à\ faire,\ je\ crois\)” YES 38
39. Choose the value R<L and move to 43
38. Choose the value inside and move to 43
39. Does \( m \) breaks the continuity of \( p \)? “\( Au\ mariage\ de\ Josephine\ il\ y\ avait,\ je\ sais\ pas,\ 70-80\ personnes\)” YES 40 NO 41
40. Choose the value inside and move to 43
41. Is \( m \) co-extensive with \( p \)? “\( Tu\ as\ appelé\ Philippe?\)”
42. Choose the value co-extensive and move to 43

4b Attribution of the source

43. Are \( m \) and \( p \) uttered by the same speaker? YES go to 44, NO 46
44. Is \( m \) uttered in the same speech turn than \( p \)? YES choose the “SS” and go to 56 value, NO 45
45. Is \( m \) uttered by the same speaker but in a different speech turn than \( p \)? YES choose SS_OT and move to 48
46. Is \( m \) and \( p \) uttered by two different speakers? YES go to 47
47. Choose value OS and move to 48

4c Attribution of the function of the relation

48. Is \( m \) merely used to indicate the knowledge or evidence speaker A has to validate a representation \( p \) which he wants to add to the common ground (\( p \) is added to the common ground within the limits of the validity of the knowledge or evidence provided), “\( Il\ semble\ que\ la\ rue\ a\ été\ fermée\ à\ cause\ de\ travaux\)” ; “\( Peut-être\ que\ tu\ as\ encore\ le\ temps\ de\ les\ rejoindre\)” YES choose the value qualification and move to 56, NO 49
49. Is \( m \) used by speaker B to assent to \( p \), uttered by speaker A (\( p \) is added to the common ground) “\( A:\ :\ C'est\ Paul\ qui\ est\ advocat,\ pas\ Jean\ B:\ C'est\ vrai\)” ; “\( A:\ : Marie\ est\ une\ élève\ intelligente\ B:\ Très\ intelligente\)” YES choose the value acceptation value and move to 56, NO 50
4d Attribution of the type of the relation

50. Is m used by speaker B to reject p uttered by A (p is not added to the common ground), “A : J’ai dix enfants B : Je n’ai pas compris” ; “A : Ils ont payé la facture de novembre B : ils ont payé, tu dis? Je n’ai rien vu” YES choose the value non acceptation and move to 56, NO 51
51. Is m used by A to request a confirmation for the validation of p (A proposes to add p to the common ground) “Toi, Pierre, tu a déjà été à Rome?” YES choose the value check and move to 56, NO 52
52. Is m used by B to confirm p whose validity was checked by A (p is added to the common ground) “A : Est-ce que tu es content de son cadeau? B : Bien sûr” YES choose the value confirmation and move to 56, NO 53
53. Is m used by B to reject the representation p whose validity was checked by A (p is not added to the common ground)? “A : Y a-t-il une traduction en français de ce livre? B : Pas encore” YES choose the value non confirmation and move to 56, NO 54
54. Is m used by A to inform B of the validity of p (p is added to the common ground, B must accept) “Tu sais, hier je suis tombé sur Antoine au marché” YES choose the value information and move to 56, NO 55
55. Cases to be discussed, move to 56

56. Is m used to indicate that the agent responsible for the validation of p (whether the speaker, the interlocutor or another discursive source) has an evidence for p? YES go to 58, NO go to 57
57. “Je sais que la candidature de Marie a été acceptée” Choose the value no evidence and move to 66
58. Is m used to indicate that the agent responsible for the validation of p has seen (or not seen) p? “J’ai vu Pierre il y a juste quelques minutes” YES choose the value visual and move to 66, NO 59
59. Is m used to indicate that the agent responsible for the validation of p has listened (or not listened) to p? “Mon frère est sorti de la maison vers 7h, je l’ai entendu” YES choose the value auditory and move to 66, NO 60
60. Is m used to indicate that the agent responsible for the validation of p remembers (or it does not remember) p? “Je me souviens que j’avais mis mon stylo sur le banc” YES choose the value memory and move to 66, NO 61
61. Is m used to indicate that the agent responsible for the validation of p has been told about p? YES 62, NO 64
62. Is m used to indicate that the agent responsible for the validation of p reports p textually? “Il m’a dit d’accord, on se rencontrera devant le café” ; “A : j’ai gagné cent mille euros à la loterie B : cent mille euros ?» YES choose quotative and move to 66, NO 63
63. “Il m’a dit qu’on va se rencontrer devant le café” Choose reportive and move to 66
64. Is m used to indicate that the agent responsible for the validation of p validates (or does not validate) p after a reasoning process? “Je me rends compte que c’est la seule explication, mais je ne pense pas qu’il soit déjà parti” YES choose the value inferential and move to 66, NO 65
65. Cases to be discussed
4d Attribution of the polarity

66. Is $m$ used to indicate that the agent responsible for the validation of $p$ is inclined to think that $p$ is true? “On sait que le favori des sondages va être le nouveau président”; “Pierre a une maison de ville avec piscine. Apparemment il a de gros revenus” YES choose positive, NO move to 67

67. Is $m$ used to indicate that the agent responsible for the validation of $p$ is inclined to think that $p$ is not true? “Est-il venu pour parler avec moi? B : Je crois que non”; ”YES choose negative NO move to 68

68. Is $m$ used to indicate that the agent responsible for the validation of $p$ has NO opinion concerning the truth of $p$? “Il dit que son train a eu du retard à cause d’un incident” YES choose neutral.