

## NSM Exponents of Mental Predicates in French: Translation, Commentary, and Lexical Elaboration of THINK

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### I. Introduction

Originated by Anna Wierzbicka, the Natural Semantic Metalanguage (NSM) is a mini-language supposed to correspond “to the shared core of all languages” (Wierzbicka, “Natural Semantic Metalanguage” 1076). Having been jelling for over three decades of cross-linguistic investigations, now the NSM approach “is one of the most well developed, productive, and comprehensive systems of semantic analysis in contemporary linguistics” (Goddard, “Natural Semantic Metalanguage” 1).

Cliff Goddard, a scholar preoccupied with cross-cultural semantics and pragmatics, outlines three major barebones of the NSM project. First of all, it is based on the assumption that “every natural language is adequate” and so is “its own semantic metalanguage”. Secondly, every language has a semantic core, which is “non-arbitrary and irreducible”, with “a language-like structure”, i.e. a mini-lexicon consisting of semantic primes (lexical units with indefinable meanings, e.g. in English ‘good’, ‘bad’, ‘do’, ‘happen’) and mini-grammar. Third, both the lexicon and grammar of semantic metalanguages are substantially universal (Goddard, “Thinking Across Languages and Cultures” 109-110).

A useful tool in cross-linguistic semantic research is a canonical sentence, both in the narrow sense (consisting of only primitives) and in the broader sense (including primitives with a restrained admixture of non-primitives). The NSM theory hypothesizes that canonical sentences, in contrast to other sentences, “can be translated – without loss and/or addition of meaning – into any language whatsoever” (Wierzbicka, *Semantics: Primes and Universals* 30). This hypothesis was a stimulus for linguistic explorations of multiple scholars. One of them is, for example, Andrew Pawley who studied exponents of lexical and semantic primitives in Kalam (“Kalam Exponents of Lexical and Semantic Primitives” 387-421).

The aim of this paper is to examine how NSM deals with French, a Romance language. The study is structured as follows. The first part encompasses a French

translation of 99 canonical sentences, formulated in English. Although French is the official language of 29 countries and 12 dependent entities, the variety applied in the translation is Standard French.

The second part presents a semantic commentary on major difficulties in translating canonical sentences (in the section *Mental Predicates*) into French, in particular problems with six NSM exponents of semantic primes belonging to the said section, namely *penser* (THINK), *savoir* (KNOW), *vouloir* (WANT), *sentir* (FEEL), *voir* (SEE), *entendre* (HEAR).

Basing on the data collected from written sources, I will present allolexy and polysemy of the said semantic primes, as well as possible alternative translations of the canonical sentences. Subsequently, I will discuss the lexical elaboration of the semantic prime THINK. The focus will be on language-specific epistemic verbs and qualifiers. The canonical sentences and their translations chosen as the basis for my analysis are marked with Arabic numerals. The alternative translations are marked with Arabic numerals followed by lowercase letters (e.g. 8a, 8b, 9a, 9b, 9c). Other canonical sentences, provided by scholars in the past and quoted in this paper for the sake of comparison, are marked with upper case letters (e.g. A, B, C, D, E, F).

I have selected this particular set (*Mental Predicates*) because it is characterized by a comparatively high number of ambiguities, which makes it a compelling subject of study. As for lexical elaboration, I will focus on the semantic prime THINK. The reasons is that it fits perfectly with the previous scholarly discussion, mainly the texts of Anna Wierzbicka, Cliff Goddard, Bert Peeters and Kerry Mullan.

## II. Translation of *Canonical Sentences for the NSM Primes* into French

### Mental Predicates (Les prédicats mentaux)

1. He thought it was a possum, but I wasn't sure.  
Il pensait que c'était un opossum, mais je n'étais pas sûr.
2. I think she fell asleep, but I don't know.  
Je pense qu'elle s'est endormie, mais je ne sais pas.
3. We know this is bad.  
Nous savons que c'est mal.
4. I don't know where he is now.  
Je ne sais pas où il est maintenant.
5. I want to go to the village (market, beach etc.).  
Je veux aller au village (au marché, à la plage etc.).

6. I want you to do it.  
Je veux que tu le fasses.
7. I don't want you to do it.  
Je ne veux pas que tu le fasses.
8. When that happened (or: when I heard that), I felt something good/bad.  
Quand c'est est arrivé (ou: quand j'ai entendu ça), j'ai senti quelque chose de bien/de mal.
9. I feel like this.  
Je me sens comme ça.
10. I saw some people by the river.  
J'ai vu certaines gens près de la rivière.
11. She was singing – I heard it.  
Elle chantait – je l'ai entendu.
12. I saw my dead grandfather in a dream.  
J'ai vu dans un rêve, mon grand-père qui est mort.
13. God hears our prayers.  
Dieu entend nos prières.

### Speech (Parole)

14. 'No', I said.  
« Non » : dis-je.
15. 'Ouch/damn', He/she said.  
« Aïe, zut » : dit-il/elle.
16. He said the same.  
Il a dit la même chose.
17. He said something to me, but I didn't hear it.  
Il m'a dit quelque chose, mais je ne l'ai pas entendu.
18. Did he say anything about these people?  
Est-ce qu'il a dit quelque chose sur ces gens ?
19. He said a bad word/some bad words.  
Il a dit un gros mot/de gros mots.
20. Don't say that word! (It's bad)  
Ne dis pas ce mot ! (C'est mal)
21. In language X, the word for 'no' is *wiya*.  
Dans la langue X, le mot 'non' est *wiya*.

### Actions, Events, and Movement (Actions, événements et mouvement)

22. What did you do?  
Qu'est-ce que tu as fait ?
23. Do it again!  
Fais-le encore !
24. You did something good/bad.  
Tu as fait quelque chose de bien/de mal.
25. She did something bad to me/you.  
Elle m'a fait du mal./Elle t'a fait du mal.
26. Something good/bad happened to me.  
Quelque chose de bien/de mal m'est arrivé.
27. What happened to you?  
Qu'est-ce qui t'es arrivé ?
28. Something happened in that place.  
Quelque chose est arrivé dans cet endroit.
29. Don't move!  
Ne bouge pas !
30. I was very scared. I couldn't move.  
J'avais très peur. Je ne pouvais pas bouger.

### Existence and Life (Existence et vie)

31. (Look!) There are baby birds in that nest.  
(Regarde !) Il y a de petits oiseaux dans ce nid.
32. (Look!) There is someone in the garden.  
(Regarde !) Il y a quelqu'un dans le jardin.
33. There are no [e.g. ghosts].  
Il n'y a pas [p. ex. de fantômes].
34. There are many kinds of nuts/yams/bats.  
Il y a de beaucoup types de noix/d'ignames/de chauves-souris.
35. (In a story of olden days) These people lived for a long time.  
(Dans une histoire d'autrefois) Ces personnes ont vécu longtemps.
36. These two people lived at the same time.  
Ces deux personnes ont vécu en même temps.
37. Turtles live for a long time.  
Les tortues vivent longtemps.
38. Fish live in the sea.  
Les poissons vivent dans la mer.

**Similarity (Similarité)**

39. He did it like this.  
Il l'a fait comme ça.
40. This is like lilac (or: any plant), but it is not lilac.  
C'est comme du lilas (ou: n'importe quelle plante), mais ce n'est pas du lilas.
41. I am not like other people.  
Je ne suis pas comme les autres.
42. Do it like I am doing it.  
Fais-le comme je le fais.

**Time (Temps)**

43. When did you do it?  
Quand l'as-tu fait ?
44. At that time, I didn't know anything about it.  
A ce moment (-là), je n'en savais rien.
45. When I did this, I felt something bad.  
Quand je l'ai fait, j'ai senti quelque chose de mal.
46. They live in X now. Before this they lived in Y.  
Ils vivent dans X maintenant. Avant ça, ils ont vécu dans (à, en, au) Y.
47. This happened before you were born.  
Ça s'est produit avant votre naissance.
48. This happened a long time ago.  
Ça s'est produit il y a longtemps.
49. He slept for a long time/for a short time.  
Il a dormi longtemps/peu de temps.

**Space (Espace)**

50. Where did you do it?  
Où l'as-tu fait ?
51. Where is he now?  
Où est-il maintenant ?
52. It was under/above this other thing.  
C'était au-dessous/au-dessus de cette autre chose.
53. Is it far from here to do that place [e.g. Gundaroo].  
Est-ce que c'est loin de cet endroit [p. ex. Gundaroo].
54. I live near him.  
J'habite près de chez lui.

55. There is an insect inside this.  
Il y a un insecte dedans.
56. I felt the baby move inside me.  
J'ai senti le bébé bouger en moi.

**Substantives: who, someone, person, people, what, something, thing**  
(**Substantifs: qui, quelqu'un, personne, gens, quoi, quelque chose, chose**)

57. Who did it?  
Qui l'a fait ?
58. Someone took it.  
Quelqu'un l'a pris.
59. I saw someone there.  
J'ai vu quelqu'un là-bas.
60. These people are (not) like other people.  
Ces gens (ne) sont (pas) comme les autres.
61. Tigers eat people.  
Les tigres mangent des gens.
62. What happened?  
Qu'est-il arrivé ?
63. Something bad happened.  
Quelque chose de mal est arrivé.
64. This thing is big/small.  
Cette chose est grande/petite.
65. I did something bad.  
J'ai fait quelque chose de mal.

### Determiners (Déterminants)

66. Look at this.  
Regarde ça.
67. This is a big/small dog.  
C'est un grand/petit chien.
68. She did the same.  
Elle a fait la même chose.
69. (It was John, but) she thought it was another man.  
(C'était John, mais) elle pensait que c'était un autre homme.
70. They have all died.  
Ils sont tous morts.

71. How many children does she have?  
Combien d'enfants a-t-elle ?
72. Not many people live there.  
Peu de gens vivent ici.
73. Some kinds of fish are not good to eat.  
Certains types de poissons ne sont pas bons à manger.

### Evaluators and Descriptors (Evalueurs et descripteurs)

74. He is a good/bad man (person).  
 C'est un bon/méchant (bonne/méchante) homme (personne).
75. This is a good/bad thing.  
 C'est une bonne/mauvaise chose.
76. I saw a big/small tree.  
 J'ai vu un gros/petit arbre.

### Taxonomy, Partonomy (Taxonomie, partonomie)

77. There are three kinds of yam.  
 Il y a trois types d'ignames.
78. This is not the same fish, but it is the same kind of fish.  
 Ce n'est pas le même poisson, mais c'est le même type de poisson.
79. An axe has a handle.  
 Une hache a une poignée.
80. This thing has two parts.  
 Cette chose a deux parties.
81. That horse has a long tail.  
 Ce cheval a une longue queue.

### Augmentor and Intensifier (Augmentateur et intensificateur)

82. (I don't know much about it) I want to know more.  
 (Je n'en sais pas beaucoup) Je veux en savoir plus.
83. Tell me more!  
 Dis m'en plus!
84. Give me more! [food]  
 Donne m'en plus! [aliments]
85. This dog is bigger than that other dog.  
 Ce chien est plus grand que cet autre chien.

86. You said very little.  
Tu as dit très peu.
87. He stood very near me.  
Il restait debout tout près de moi.

### Clause Operators (Clause opérateurs)

88. No! I didn't do it (see it, etc.).  
Non! Je ne l'ai pas fait (le vu, etc.).
89. Maybe it will rain tomorrow.  
Peut-être qu'il va pleuvoir demain.
90. (Who broke the pot?) Maybe John did it.  
(Qui a cassé le pot ?) Peut-être que John l'a fait.
91. (Will he come tomorrow?) Maybe, I don't know.  
(Va-t-il venir demain ?) Peut-être, je ne sais pas.

### Meta-predicates (Meta-prédicats)

92. I can't go now, but maybe my brother can.  
Je ne peux pas partir maintenant, mais peut-être que mon frère peut.
93. I can't do it now, but I could do it before.  
Je ne peux pas le faire maintenant, mais je pourrais le faire avant.
94. If I could do it, I would do it, but I can't.  
Si je pouvais le faire, je le ferais, mais je ne peux pas.

### Interclausal Linkers (Liens interclausaux)

95. He hit me. That's why I am crying.  
Il m'a frappé. C'est pourquoi je pleure.
96. If it rains tomorrow, I won't come.  
S'il pleut demain, je ne viendrai pas.
97. If you do this one more time, I will hit you.  
Si tu le fais encore une fois, je te frapperai.
98. If I had a spear, I would go hunting. But I don't have a spear.  
Si j'avais une lance, j'irais à la chasse. Mais je n'ai pas de lance.
99. If you fight him, you might die.  
Si tu bats avec lui, tu peux mourir.

### III. Linguistic semantic commentary on the section *Mental Predicates*

#### 1. Problems with translation: compositional polysemy and allolexy

##### Canonical sentences involving FEEL

According to Wierzbicka, searching for exponents of FEEL in the world's languages "raises a whole range of very interesting problems" (qtd. in Peeters et al., "NSM Exponents and Universal Grammar in Romance" 101). Bert Peeters, a French-speaking scholar currently employed, like Cliff Goddard, at the Griffith University in Australia, and other academics collaborating with him share Wierzbicka's opinion and comment on the phenomenon: "the Romance exponents of FEEL are often tied up in sometimes rather intricate patterns of polysemy, with potential consequences for other parts of the metalanguage" ("NSM Exponents and Universal Grammar in Romance" 101).

The above is also true for French; one of the major problems encountered in translating canonical sentences into French is the polysemous exponent of a semantic prime FEEL, which has generated a great deal of debate among the researchers. A standard English-French dictionary gloss 'feel' as *sentir* ("Feel"). Nevertheless, in 1994, Peeters claimed that using *sentir* in canonical sentences is inappropriate because the expression *sentir quelque chose de bon/de mauvais* ('feel something good/bad'; here illustrated by sentence no. 8) refers "to a good or to a bad smell rather to a good or a bad feeling" ("Semantic and Lexical Universals in French" 428). Wierzbicka herself suggested to drop SOMETHING (*quelque chose de*) in the canonical context. Yet, as Peeters asserted, it would make the case even more problematic as *Elle sent bon* means 'She smells nice'. "In that case, the 'smell' reading is the only one possible" ("Semantic and Lexical Universals in French" 428).

Subsequently, Peeters made an attempt to overcome the said difficulty by implementing in the canonical context (*sentir quelque chose de bon/de mauvais*) the reflexive verb *se sentir* instead of *sentir*. Then, however, another problem arose. In this phrase an adverb *bien* and not an adjective *bon* should be used. \**Je me sens bon* is an incorrect utterance in French and one ought to say *Je me sens bien* 'I feel good'. Yet, the sentence with *bien* is ambiguous as well because it also means 'I feel well/I'm fine' and its opposite *Je me sens mal* is understood as 'I feel unwell/sick', not as 'I feel bad' (Peeters, "Semantic and Lexical Universals in French" 428).

Thus, the search for a more accurate French exponent for the semantic prime FEEL continued. At that stage, Peeters considered using *éprouver* or *ressentir*, which both require *quelque chose de* before the adjectives *bon* and *mauvais*. Although none of the two verbs takes a subordinate clause, the scholar did not recognize that as a difficulty. Peeters found *éprouver* and *ressentir* appropriate as both refer to the

perception of such feelings as sympathy, love and, on the other side of the pole, rancour, hate, regret, sadness. In other words, good/bad feelings. The problem was which of them fits the canonical context better (Peeters, “Semantic and Lexical Universals in French” 428).

To find the solution, Peeters relied on the authority of Henri Bénac, who asserted that *ressentir* is used when referring either to feelings evoked by outside causes (like in a sentence uttered by Blaise Pascal “*L’âme ressent les passions du corps* ‘The soul feels the passions of the body’”) or to feelings lasting for a long period of time, e.g. “*ressentir la perte d’un parent proche* ‘feel the loss of a close relative’” (qtd in. “Semantic and Lexical Universals in French” 428).

Based on Bénac’s interpretation, Peeters concluded that the verb *ressentir* was “too specific”; it does not refer to abstruse or unspecified feelings. As reported by the scholar, the meaning of *ressentir* is unsuitable semantically in the phrase *quelque chose de bon/de mauvais*, which is “intentionally broad” and seems to appear more naturally after the verb *éprouver* (usually used with feelings that the subject did not experience as such) (“Semantic and Lexical Universals in French” 428-429).

*Éprouver* itself is formally complex (from the point of view of morphology). Nonetheless, Peeters did not find that feature as an obstacle in treating the word as an exponent of a semantic prime. As the researcher claimed, “*ressentir* remains clearly related to *sentir*, whereas the link between *éprouver* and *prouver* is purely etymological and has long ceased to be perceived by native speakers, especially when the verb takes on its primitive meaning” (Peeters, “Semantic and Lexical Universals in French” 429). The researcher then decided that *éprouver*, adequately broad, best conveys the meaning of semantic primitive (prime) FEEL. At the same time, he applied that word in the following sentences (Peeters, “Semantic and Lexical Universals in French” 429):

A. *J’ éprouve*                      *quelque chose*                      *de*                      *bon/mauvais.*  
 I feel:1SG.PRES                      something                      LIG                      good/bad  
 ‘I feel something good/bad.’

B. *J’ éprouve*                      *quelque chose*                      *comme*                      *ceci.*  
 I feel:1SG.PRES                      something                      like                      this

‘I feel something like this.’ The pattern ‘X feels something good/bad’, appearing in example A, perfectly corresponds with the canonical sentence no. 8

presented in this paper. Therefore, it would be tempting to translate it using *éprouver* as a semantic prime:

- (8a) *Quand c' est arrivé* (ou: *quand j' ai entendu ça*),  
 when that happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
*j' ai éprouvé quelque chose de bon/mauvais.*  
 I feel:1SG.PCOMP something LIG good/bad  
 'When that happened (or: when I heard that), I felt something good/bad.'

The difficulty is that the first sentence presented by Peeters is written in the present simple tense whereas the canonical sentence which is the basis in this paper is formulated in the past simple. In French, in this context one can use both *passé composé* (for a shorter action) and *imparfait* (for a longer action, state). Consequently, the translation might also look like this (but the order should be changed):

- (8b) *J' éprouvais quelque chose de bon/mauvais*  
 I feel:1SG.IMPF something LIG good/bad  
*quand c' est arrivé* (ou: *quand j' ai entendu ça*).  
 when that happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
 'I felt something good/bad when that happened (or: when I heard that).'

Another observation is that canonical sentence no. 9, in comparison to sentence B, lacks SOMETHING (*quelque chose*), which nevertheless does not seem to affect the meaning in this context. As a consequence, this sentence (no. 9) can be translated as:

- (9a) *J' éprouve comme cela.*  
 I feel:1SG.PRES like this  
 'I feel like this.'

Yet, in his work published twelve years later, Peeters et al. abandoned the idea that *éprouver* has an advantage over *sentir*. Although he had found the usage of *sentir* awkward in the past, now he considered it more appropriate than *éprouver* (Peeters et al., "NSM Exponents and Universal Grammar in Romance" 101).

Furthermore, Wierzbicka has questioned the appropriateness of *éprouver* in canonical contexts, asserting that this verb is closer to experience rather than to FEEL ("Semantic Primitives Across Languages: A Critical Review" 465). Earlier,

however, Wierzbicka had treated *éprouver* as an equivalent of ‘feel’ (“Human Emotions: Universal or Culture-Specific?” 590).

Peeters et al. explain that the main problem with finding the French exponent for FEEL has resulted from the wrong choice of exponents for GOOD and BAD in the expression *quelque chose de...* (“NSM Exponents and Universal Grammar in Romance” 102). In the past, *bon* (‘good’) and *mauvais* (‘bad’) were used in the context canonical *quelque chose de bon/mauvais*. The said adjectives in combination with *sentir* associate strongly with a smell. Later, they were replaced in the canonical contexts by the adverbs *bien* and *mal* (*quelque chose de bien/mal*). Peeters et al. provided the following examples of canonical sentences (“NSM Exponents and Universal Grammar in Romance” 102):

C. *Ces gens sentent la même chose*  
 these people feel:3PL.PRES the same thing  
*que moi.*  
 COMP me  
 ‘These people feel the same thing as me.’

D. *Quand cela est arrivé, j’ ai senti*  
 when that happen:3SG.PCOMP I feel:1SG.PCOMP  
*quelque chose de mal.*  
 something LIG bad  
 ‘When this happened, I felt something bad.’

E. *Beaucoup de gens se sentent comme ça.*  
 many LIG people feel:3PL.PRES like this  
 ‘Many people feel like this.’

*Sentir* (with an allolex *se sentir*) remains to the present day the official exponent of the semantic prime FEEL (as of March 2015), included in the Chart of French NSM Semantic Primes available on the website of Griffith University (Goddard and Junker). Consequently, in accordance with the researcher’s findings, canonical sentences should rather be translated as follows:

(8) *Quand c’ est arrivé (ou: quand j’ ai entendu ça),*  
 when this happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
*j’ ai senti quelque chose de bien/mal.*  
 I feel:1SG.PCOMP something LIG good/bad

‘When that happened (or: when I heard that), I felt something good/bad.’

(9) <i>Je</i>	<i>me sens</i>	<i>comme</i>	<i>ça.</i>
I	feel:1SG.PRES	like	this
‘I feel like this.’			

In the light of the above considerations, the most proper translation of FEEL seems to be *sentir* and *se sentir*, and that is what I have chosen. Although *sentir* occurs in sentences no. 8 and 9, one can notice a dissimilarity between its usage in the said examples. In sentence no. 9, it appears as a reflexive verb *se sentir* whereas in sentence no. 8 as a non-reflexive one *sentir*. The creators of the Chart of French NSM Semantic Primes (Goddard and Junker) treat *sentir* and *se sentir* as allolexes, that is diverse “exponents of the same primitive” (Wierzbicka, *Semantics: Primes and Universals* 26), which implies that both forms should be semantically very close, in compliance with Goddard’s view that the vocabulary items can be regarded as allolexes if there is no paraphrasable difference in meaning between them (“Natural Semantic Metalanguage” 7).

However, in the case of *se sentir* and *sentir* the issue appears to be more complicated than at first glance. According to the intuition of a native speaker, *se sentir* and *sentir* carry different meaning. *Se sentir* is used while talking about an individual’s feelings. *Sentir*, on the other hand, is polysemous; it may mean ‘to feel’ or ‘to smell’.

As regards other possible translations, definitely the form *quelque chose de bon/de mauvais* should be rejected, as it strongly associates with smell rather than feeling. As for alternative verbs, *éprouver* and *ressentir* do not convey the meaning of FEEL because, as has been shown, they are semantically rather inappropriate. *Éprouver* associates with experiencing something, whereas *ressentir* is too specific and does not fit into a broad phrase such as *quelque chose de bien/de mal*. Accordingly, the alternative translations 8a and 8b should be rejected. As of today, it appears that *sentir* and *se sentir* are the best exponents of the semantic prime FEEL.

Yet, there is an alternative translation of sentence no. 8 that could be used successfully, depending on the context and on what the author wants to stress. It has not been considered by scholars who analyzed FEEL in canonical sentences in the present simple tense (A, C, D). It seems that another appropriate translation would be *sentir* used in the tense *imparfait* (not *passé composé*). Yet, the order should be changed:

- (8c) *Je sentais quelque chose de bien/mal*  
 I feel:1SG.IMPF something LIG good/bad  
*quand c' est arrivé (ou: quand j' ai entendu ça).*  
 when this happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
 'I felt something good/bad when that happened (or: when I heard that).'

The difference is very subtle. *Passé composé* stresses the punctuality of an action. The experiencer felt something at this particular time. Conversely, *imparfait* puts emphasis on the feeling itself and implies that it lasted for a longer time. Nonetheless, in my opinion, *passé composé* corresponds better with English past simple than *imparfait*, which is more suitable for sentences where English past continuous is used (e.g. 'I was feeling something good/bad').

It is worth pointing out that the fragment in the brackets might be also translated as *quand j' ai entendu cela* or *quand j' ai entendu ceci* ('when I heard that'):

- (8d) *Quand c' est arrivé (ou: quand j' ai entendu cela),*  
 when this happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
*j' ai senti quelque chose de bien/mal.*  
 I feel:1SG.PCOMP something LIG good/bad  
 'When that happened (or: when I heard that), I felt something good/bad.'

- (8e) *Quand c' est arrivé (ou: quand j' ai entendu ceci),*  
 When this happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
*j' ai senti quelque chose de bien / mal.*  
 I feel:1SG.PCOMP something LIG good/bad  
 'When that happened (or: when I heard that), I felt something good/bad.'

This change is not strictly connected with the mental predicate but with the determiner *this*. The said alternative versions are formal and thus relatively rarely used in everyday speech whereas *ça* (standing for 'this' or 'that') is widespread. Not only in this context but also in other phrases such as *Ça va?* or *Comment ça va?* ('How are you doing?', 'How are you?').

At the beginning, scholars treated *ceci* as the only exponent of THIS (Peeters, "Semantic and Lexical Universals in French" 429–430). Later on, *cela* was used with an additional allolex *ce* (Peeters et al., "NSM Exponents and Universal Grammar in Romance" 58). As for now, it is *ça* that is officially preferred in canonical contexts (Goddard and Junker). Yet, Peeters et al. considered it in the past as "too informal for NSM purposes" ("NSM Exponents and Universal Grammar in Romance" 58).

In my translation (8), I have chosen ÇA because it is currently included in the French Chart of Semantic Primes. However, sentence no. 8 could be translated using *ceci/cela* without any loss of meaning. Using *ceci/cela* instead of *ça* would be a stylistic and not a semantic change.

The same applies to sentence no. 9 as two alternative translations of this sentence are possible with either CECI or CELA:

(9b) <i>Je</i>	<i>me sens</i>	<i>comme</i>	<i>ceci.</i>
I	feel:1SG.PRES	like	this
'I feel like this.'			

(9c) <i>Je</i>	<i>me sens</i>	<i>comme</i>	<i>cela.</i>
I	feel:1SG.PRES	like	this
'I feel like this.'			

### Canonical sentences involving HEAR

Sentence no. 8, which has been discussed in the previous subsection, contains another polysemous French word *entendre*, quite problematic in translation. As reported by Cliff Goddard, the French exponent of HEAR (*entendre*) has two major meanings: 'to hear' or 'to understand' ("Thinking Across Languages and Cultures" 117). As a consequence, translation of sentence no. 13 seems vague.

Canonical sentence no. 13 with God as a subject is a complicated one. Mainly, in the religious discourse *entendre* might have different meanings and undertones. In this context, its synonym would be *exaucer* 'to fulfill the wish of a prayer'. Furthermore, the sentence resembles a fixed phrase *Que Dieu nous entende!* Its translation 'May God hear you' does not cover the full meaning of the phrase because there is much more to it than just hearing. The French phrase would be uttered in the same situation as the English phrase 'from your lips to God's ears' ("May the prediction or wish you are making come true"). According to a dictionary, this phrase is used "to express appreciation for someone's hope that matters will turn out well. Also, in the form *from your mouth*". The expression is often shortened to 'from your lips' ("From your lips to God's ears").

In order to avoid such ambiguities as illustrated by sentence no.13, we ought to search for another French word which could cover only the basic and standard meaning of *entendre*, i.e. 'hear'. French verb *ouïr* is quite an adequate candidate. At first glance, it appears to be a perfect one as it has only one meaning 'hear'. Also, it perfectly corresponds with the Spanish verb *oír* (official Spanish exponent of HEAR) and it appears in the roots of other closely related French words such as *entrouïr* ('to

hear imperfectly'), *inouï* ('unprecedented, unheard-of'). It also forms a compound word *ouï-dire* ('hearsay').

What speaks in favour of this word is also the fact that it is used in the French name for one of the senses *ouïe* ('hearing'). Thus, the pair *ouïr* – *ouïe* accurately resembles the English pair *hear* – *hearing*. The word *ouïe* itself is also used in the fixed expression *avoir l'ouïe fine* ('to have good hearing').

The problem is that *ouïr* is considered as rather obsolete nowadays, same as *entrouïr*. Whereas *inouï* survived, even though its meaning has changed significantly (nowadays it mainly means 'incredible' and it is used in the expression *il est inouï* 'he is amazing'), one can hardly hear *ouïr* in the streets. Today, only *ouïe* and *ouï-dire* are commonly used, with no semantic change.

Nevertheless, the ambiguity of *entendre* is not so explicit in all contexts. A perfect example is sentence no. 11; its French translation *Elle chantait – je l'ai entendu* can be understood only as 'She was singing – I heard it'. Yet, the sentence could be ambiguous if it was not in the tense *passé composé* but in the present tense *présent* or in the past tense *imparfait* for example. The reason is that the pronoun *l'* (a positional variant of either *la* or *le* before a vowel, which may stand both for masculine and feminine nouns) in French, in this context (tense and construction *Complément d'objet direct*: COD), requires agreement of the past participle (*accord du participe passé*). As there is no *e* at the end of *entendu* the reader of the French sentence knows that *l'* stands for 'it'. In the present tense, the sentence would read as *Elle chante – je l'entends*. Then, the sentence could be understood in two ways: as 'She sings – I hear her' or 'She sings – I hear it'.

Peeters et al. presented the following example of a canonical sentence for French ("NSM Exponents and Universal Grammar in Romance" 105):

F. *J' ai dit ces mots, mais tu ne les*  
 I say:1SG.PCOMP these words but you NEG 3SG.CLIT  
*as pas entendus.*  
 hear:2SG.PCOMP+not  
 'I said these words, but you didn't hear them.'

Although the example presents the same syntactic frame as the analyzed canonical sentence no. 11, the first person point of view is less problematic than, as shown, the third person subject, particularly God (no. 13). Therefore, there arises a question: how should 'hear' be translated into French?

The official exponent of semantic prime HEAR is *entendre*. As this semantic prime remains underexplored, researchers, mainly Peeters, have not considered *ouïr*.

Consequently, the sentences should rather be translated using *entendre* even if they are vague. However, I have found that for each sentence there is an alternative translation (not ambiguous) with the use of *ouïr*. The alternative translation eliminates the said problems with polysemy:

(8f) *Quand c' est arrivé* (ou: *quand j' ai ouï ça*),  
 when this happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
*j' ai senti quelque chose de bien/mal.*  
 I feel:1SG.PCOMP something LIG good/bad  
 'When that happened (or: when I heard that), I felt something good/bad.'

(11a) *Elle chantait – je l' ai ouï.*  
 she sing:3SG.IMPF I 3SG.CLIT hear:1SG.PCOMP  
 'She was singing – I heard it.'

(13a) *Dieu oit nos prières.*  
 God hear:3SG.PRES our prayers  
 'God hears our prayers.'

The alternative French translation (no. 8f) perfectly corresponds with the Spanish example provided by Peeters et al. ("NSM Exponents and Universal Grammar in Romance" 106):

G. *Cuando oí estas palabras, sentí algo*  
 when hear:1SG.PRET these words feel:1SG.PRET something  
*muy malo.*  
 very bad  
 'When I heard these words, I felt something very bad.'

As one can notice, establishing a proper French semantic exponent of HEAR is also (like in the case of FEEL) quite problematic. Goddard and Wierzbicka stressed that the universal grammar of the prime HEAR "has not yet been explored in depth" (qtd. in "NSM Exponents and Universal Grammar in Romance" 105).

Even though the alternative translations no. 8f, 11a, 13a are by all means grammatically correct and not polysemous, I have decided to translate the canonical sentences using the official exponent of HEAR, that is *entendre*. The reason is strictly pragmatic. In modern French almost nobody uses the verb *ouïr*. And nowadays there

is no unequivocal counterpart of *entendre*. Therefore, I have translated the sentences as follows:

- (8) *Quand c' est arrivé* (ou: *quand j' ai entendu ça*),  
 when this happen:3SG.PCOMP (or: when I hear:1SG.PCOMP that)  
*j' ai senti quelque chose de bien / mal.*  
 I feel:1SG.PCOMP something LIG good/bad  
 'When that happened (or: when I heard that), I felt something good/bad.'

- (11) *Elle chantait – je l' ai entendu.*  
 she sing:3SG.IMPf I 3SG.CLIT hear:1SG.PCOMP  
 'She was singing – I heard it.'

- (13) *Dieu entend nos prières.*  
 God hear:3SG.PRES our prayers  
 'God hears our prayers.'

### Syntactic frames of THINK and WANT: differences between English and French

It is worth noticing that in French, in contrast to English, 'that' is obligatory in constructions such as 'to think that' [*penser que*] or 'to know that' [*savoir que*] and under no circumstances can it be omitted. As a consequence, the French translation requires *que* in sentences no. 1, 2 and 3, while in the original English versions 'that' is left out. Such omission of 'that' is very common in certain contexts, especially in informal English.

Goddard quotes Thompson and Mulac (1991) who studied two English constructions with the verb 'think': the one with a complementizer and the one without it. As reported by the researchers, 'I think that' functions rather "as an epistemic adverb with respect to a single clause" (Goddard and Karlsson 234). Moreover, the construction 'I think  $\emptyset$ ' appears more often than 'I think that' and there is a semantic difference between these two. Aijmer argued that 'I think  $\emptyset$ ' has a "softening" effect: "the tentative *I think* expresses uncertainty (epistemic modality) or softens an assertion which may be too blunt (interactive meaning)" (qtd. in Goddard, "Thinking Across Languages and Cultures" 132).

As a consequence, it seems that French translations of 'X thinks  $\emptyset$ ' in canonical contexts, i.e. *X pense que*, do not fully convey the softening effect of the English version (canonical sentences no. 1, 2). It has stronger undertones, just as the English 'I think that'.

Similarly, English ‘want’ and French *vouloir* require different syntactic frames in the canonical sentences. As for English, ‘want’ needs a preposition ‘to’ in the construction ‘want to do something’. In French, no preposition is used. Both patterns (English and French) are illustrated by canonical sentence no. 5 and its translation:

- (5) *Je veux aller au village (au marché, à la plage etc.).*  
 I want:1SG.PRES go:INF PREP village (PREP market PREP 3SG.CLIT beach etc.).  
 ‘I want to go to the village (market, beach etc.).’

In the case of the other sentence (canonical sentence no. 6), an additional element is required in the French version, namely *que* (*that*) as a conjunction in the construction *vouloir que* + *subjonctif* (‘subjunctive’) rendering the meaning of willingness and desire.

- (6) *Je veux que tu le fasses.*  
 I want:1SG.PRES COMP you 3SG.CLIT do:2SG.PRES.SJV  
 ‘I want you to do it.’

- (7) *Je ne veux pas que tu le fasses.*  
 I NEG want:1SG.PRES+not COMP you 3SG.CLIT do:2SG.PRES.SJV  
 ‘I don’t want you to do it.’

In French, *subjonctif* is also used in constructions expressing doubt, orders, commands, fear, anxiety, enchantment, surprise, indignation, regret, sadness and suffering.

### THINK: the choice of tense

Bert Peeters et al. asserted that when the exponent of KNOW refers to the past in canonical sentences, in French *imparfait* should be used. The reason is that *passé composé* changes the meaning from the “mental state” to the “punctual event” (‘to find out’) (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 91). The same applies to THINK, In my opinion, however, an alternative translation of canonical sentence no. 1 with the usage of *passé composé* is possible:

- (1a) *Il a pensé que c' était un opossum, mais je n' étais pas sûr.*  
 he think:3SG.PCOMP COMP it be:3SG.IMPF an possum but  
 I NEG be:3SG.IMPF+no sure  
 'He thought that it was a possum, but I wasn't sure.'

Moreover, the alternative version seems more natural in this context as *passé composé* usually reflects the English past simple tense. *Imparfait* would rather replace past continuous because it implies continuity. However, in my translation I complied with Peeters's recommendations and used *imparfait*. *Penser* is not the only mental predicate that changes its meaning depending on the tense used (either *imparfait* or *passé composé*). This issue will further be elaborated on in the subsequent section (number 2).

### KNOW versus THINK

Anna Wierzbicka (qtd. in Goddard, "Thinking Across Languages and Cultures" 132-133) distinguished the construction 'I think' (a) from a 'I know' (b):

a. I think Bill wrote it =

I say: I think that Bill wrote it

I don't say more

I don't say: I know this

b. Bill wrote it =

I say: Bill wrote it

I know this.

This distinction is perfectly illustrated by canonical sentence no. 2 in which both 'think' (*penser*) and 'know' (*savoir*) are used:

- (2) *Je pense qu' elle s' est endormie, mais je ne sais pas.*  
 I think:1SG.PRES COMP she REFL sleep:3SG.PCOMP but  
 I know:1SG.PRES+not  
 'I think she fell asleep, but I don't know.'

## 2. Polysemy (of the semantic primes) not covered in canonical sentences

### SEE

In French, as in other Romance languages (Italian, Portuguese, Spanish), there is a distinction between HEAR and SEE. Peeters et al. remark that SEE “is compatible with a locational phrase” (“NSM Exponents and Universal Grammar in Romance” 105). “Simple substantive complements as well as quasi-substantive THIS are allowed with both SEE and HEAR (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 105). Peeters et al. gave the following example (“NSM Exponents and Universal Grammar in Romance” 105):

- H. *Ces gens ont vu quelque chose dans un endroit pas loin d’ici.*  
 these people see:3PL.PCOMP something PREP a  
 place not far PREP here  
 ‘These people saw something in a place not far from here.’

The canonical sentences analyzed in this paper look like this:

- (10) *J’ ai vu certaines gens près de la rivière.*  
 I see:1SG.PCOMP some people by 3SG.CLIT river  
 ‘I saw some people by the river.’
- (13) *J’ ai vu dans un rêve, mon grand-père qui est mort.*  
 I see:1SG.PCOMP in a dream my grandfather who be:3SG.PRES  
 dead  
 ‘I saw my dead grandfather in a dream.’

All these sentences convey the syntactic frame ‘see somebody/something’. The said context does not trigger polysemy of the word. Yet, in some contexts *voir* may also mean, among others, ‘understand’ (e.g. *Je vois ce que vous voulez dire* ‘I see what you want to say’) or, in religious discourse, ‘know as a consequence of being omnipotent’ (e.g. *Dieu voit le fond des cœurs, voit toutes choses* ‘God sees the bottom of hearts, sees all things’; *La béatitude consiste à voir Dieu* ‘Beatitude consists in seeing God’) (“Voir”).

The first of the additional meanings mentioned above is a proof confirming Goddard’s statement that HEAR, SEE or FEEL “often have polysemic extensions

involving THINK” (“Thinking Across Languages and Cultures” 116-117). The researcher gave an example of English ‘see’ conveying the meaning ‘understand’ in the context ‘I see what you mean’ (Goddard, “Thinking Across Languages and Cultures” 117). It seems to me that both expressions, i.e. French *Je vois ce que* and English ‘I see what’, are semantically corresponding.

That link between seeing and thinking might be noticed in everyday conversations. In the French-speaking world, it is very common to end a sentence with a short expression *Tu vois?* (‘You see?’ in the sense ‘Do you understand?’) which in the youth slang occurs also in another variant with a shortened second person pronoun *t’* (‘ya’ instead of *tu* ‘you’) and *voir* in *passé composé*, that is in *T’as vu?* (‘Did ya see it?’). This phrase is overused by certain groups, such as rappers. It was even used as the title of an album of a French hip-hop group called Fatal Bazooka. In everyday life, this expression is found in French toponymy, for instance, in the name of an optical store “T’as vu? Optique” in Montreal, Canada. It can be also used as an exclamation *Tu vois! T’as vu!* Then its meaning changes slightly, expressing indignation.

Interestingly, these expressions are used interchangeably with another fixed expression *Tu sais?* (‘You know?’), having its slang variants *T’sais?* or *Tsé?* (both ‘ya know’). The Canadian speakers of French in the same situations use another expression *Tsé veut dire?*, which is a contraction of the full phrase *Tu sais ce que je veux dire?* (‘Do you know what I want to say?’). Such expressions work as a sort of conversational fillers.

## THINK

In French translations of canonical sentences containing the semantic prime THINK only one semantic frame is used, namely *X pense que* (‘X thinks that’):

(1) *Il pensait que c’ était un opossum,*  
 he think:3SG.IMPF COMP it be:3SG.IMPF an possum  
*mais je n’ étais pas sûr.*  
 but I NEG be:3SG.IMPF+not sure  
 ‘He thought that it was a possum, but I wasn’t sure.’

(2) *Je pense qu’ elle s’ est endormie,*  
 I think:1SG.PRES COMP she REFL sleep:3SG.PCOMP  
*mais je ne sais pas.*  
 but I NEG know:1SG.PRES+not  
 ‘I think she fell asleep, but I don’t know.’

Bert Peeters et al. gave the following examples of canonical sentences with the semantic prime THINK (French version plus English translation) (respectively I and J from “Semantic and Lexical Universals in French” 426; K, L and M from “NSM Exponents and Universal Grammar in Romance” 94):

I. *Je pensais que c’ était un écureuil.*  
 I think:1SG.IMPf COMP that be:3SG.IMPf a squirrel  
 ‘I thought it was a squirrel.’

J. *Je pense qu’ elle l’ a mangé.*  
 I think:1SG.PRES COMP she 3SG.CLIT eat:3SG.PCOMP  
 ‘I think she has eaten it.’

K. *Beaucoup de gens ne pensent pas à ces choses.*  
 many LIG people NEG think:3PL.PRES+not PREP these things  
 ‘Many people don’t think of these things.’

L. *Tu penses du bien de moi.*  
 You think:2SG.PRES PART good PREP me  
 ‘You think good of me.’

M. *Je pense que ces choses ont deux parties.*  
 I think:1SG.PRES COMP these things have:3PL.PRES two parts  
 ‘I think that these things have two parts.’

The first two sentences (coming from “Semantic and Lexical Universals in French”) contain the same syntactic structure as sentences no. 1 and 2, i.e. *X pense que* (‘X thinks that’) whereas examples provided in the work published in 2006 cover three diverse semantic structures of the verb THINK: once again *X pense que* ‘X thinks that’ (as in 1, 2, I, J, M), *X pense du* (‘X thinks good/bad’) and *X penser quelque chose à* (‘X thinks something of/about’).

Therefore, in 2006, Bert Peeters et al. considered as canonical all three in the given context. As was explained: “[THINK] its post-verbal valencies include propositional content (*that P*), topic (*about Y*), manner (*like this*), and direct discourse. There also appears to be a “compound valency option” (*something good / bad about someone / something*)” (Goddard qtd. in Peeters et al “NSM Exponents and Universal Grammar in Romance” 94).

It should be noticed that translation of English construction ‘think about’, mentioned by Peeters, is not that simple. There is a distinction between *penser de qqch/qqn* and *penser à qqch/qqn*. The first one means ‘to think of sth/sb, about sth/sb’ (, used also when stating an opinion) and the second one is more like ‘to think about over’, ‘to consider’, ‘to have in one’s mind’.

French speakers also use a construction *penser faire quelque chose* ‘want to do something’, ‘intend to do something’, not included in any of the canonical sentences. Yet, this construction is especially interesting. The reason is that it perfectly corresponds with an analogous Spanish expression *pienso ir* [think:1SG.PRES go:INF], rendered into English as ‘I am thinking of going’ (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 94). Additionally, Peeters et al. asserted that the said construction is not included in NSM because it is not “semantically simple” (“NSM Exponents and Universal Grammar in Romance” 94).

Goddard, in turn, underlined that “the THINK verb commonly extends to a meaning akin to English *intend* or *would like to*, i.e., a combination of THINK and WANT” (“Thinking Across Languages and Cultures” 116). In the researcher’s view, several languages (i.e. Mandarin, Amharic, Swedish) follow that pattern which can be schematically represented as follows (Goddard, “Thinking Across Languages and Cultures” 116):

X thinks to -- =

X thinks: I want to --

(I will --)

## KNOW

In French there are two words that would be translated into English as ‘know’, i.e. *connaître* and *savoir*. The former is used in the context of knowing a person or a thing (be acquainted or familiar with, e.g. *Je connais cet endroit* [‘I know this place’]; *Elle connaît cet homme* [‘She knows this man’]) whereas the latter is used while talking about knowing something (from studying or from memory, e.g. *Je sais qu’elle est mariée* [‘I know (that) she is married’]), knowing how to do something (e.g. *Je sais nager* [‘I know how to swim’ – ‘I can swim’]; *Je sais comment gagner un combat* [‘I know how to win a fight’]) or being aware of something, e.g. *Je sais que la terre est ronde* [‘I know (‘that’) the Earth is round’]). It is quite different than in English. That is why two consecutive sentences ‘I know my enemy. I know how to win a fight’, which can be uttered by a sportsman or a knight, would be translated

into French with the usage of two different words *savoir* and *connaître*. *Je connais mon ennemi. Je sais comment gagner un combat.*

The usage of *savoir* in the context of knowing how to do something, as mentioned above, is worth commentary. In English there are two ways of saying that one knows how to swim (either ‘I know how to swim’, especially in American English; or with the use of auxiliary verb *can*, i.e. ‘I can swim’, particularly in British English). In French, the most natural way of expressing the ability to swim is *Je sais nager* (literally ‘I know swim’). *Je sais comment nager (par exemple vite)* is rather less common and it is not interchangeable with *Je sais nager*. The first one is used less frequently and it has a slightly different meaning. It refers to knowing what one should do in order to swim (i.e. what particular movements to make). Therefore, it seems that the construction *savoir + infinitive* is used when we refer to skills (driving, swimming etc.) and *savoir comment + infinitive* is implemented when we want to say that we know in what way or by what means we can accomplish something, in other words what it takes to achieve a certain goal. In the example *Je sais comment gagner un combat* [‘I know how to win a fight’], *savoir* indicates that we know what kind of strategy should be used.

As for canonical sentences, *savoir* appears in two of them, covering the meaning ‘know something from memory’ (4) or ‘be aware of the fact’ (3):

(3) *Nous savons que c’ est mal.*  
 we know:1PL.PRES COMP that be:3SG.PRES bad  
 ‘We know this is bad.’

(4) *Je ne sais pas où il est maintenant.*  
 I NEG know:1SG.PRES+not where he be:3SG.PRES now  
 ‘I don’t know where he is now.’

The usage of *connaître* would be incorrect in these contexts. The debate over *connaître* in NSM has been a lively one. In the past, the researchers rejected it:

French has *savoir* and *connaître*. In English, one can know (be acquainted or familiar with) a person or a thing, or know something (from memory or from study); one can know how to do something, or know something (be aware of it). *Connaître* is used in the first case, *savoir* in the other three. The only universal use is the last one; *savoir* will normally be followed by a clausal complement or by the substantive *quelque chose* (Peeters, “Semantic and Lexical Universals in French” 426).

The canonical example at the time was (Peeters, “Semantic and Lexical Universals in French” 426):

N. *Je sais par où il est allé.*  
 I know:1SG.PRES by where he go:3SG.PCOMP  
 ‘I know which way he went.’

However, in later studies, after the Semantic and Lexical Universals (SLU) project, scholars abandoned the idea that *connaître* should be banned from NSM as a semantic prime in favour of *savoir*. As Peeters et al. reported, *connaître* started to be treated as an allex of *savoir* (“NSM Exponents and Universal Grammar in Romance” 90). The latter one, recognized as having a wider distribution than *connaître*, was considered “to be the primary exponent” (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 90). Peeters et al. argued that *savoir* is used when referring to “propositional knowledge of the type *know P* or *know that P*, as well as (relatively) unspecified knowledge (which is often underlyingly propositional; e.g. *know something, everything, nothing*)” (“NSM Exponents and Universal Grammar in Romance” 91). *Connaître*, on the other hand, is used when referring to some kind of “specific knowledge of things, people and places”, which is required by NSM (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 91). Consequently, Peeters et al. presented the following three examples in the contexts regarded as canonical (“NSM Exponents and Universal Grammar in Romance” 91-92):

O. *Tu ne sais pas que je pense du mal de toi.*  
 you NEG know:2SG.PRES+not COMP I think:1SG.PRES PART  
 bad PREP you  
 ‘You don’t know that I think something bad about you.’

U. *C’ est bien de savoir ces choses.*  
 it be:3SG.PRES good COMP know:INF these things  
 ‘It is good to know these things.’

P. *Beaucoup des gens connaissent ces deux personnes.*  
 many LIG people know:3PL.PRES these two persons  
 ‘Many people know these two people.’

Nonetheless, it seems that the idea of treating *connaître* as an allolex of *savoir* has been abandoned again as the newest chart does not include *connaître* (Goddard and Junker). What is more, as shown, *connaître* was not used in the translated canonical sentences, on which this paper is based. However, the syntactic frames for the canonical usage of *savoir* are similar in the analyzed set (4) and in the example O (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 91): *X (ne) sait (pas) que* [‘X (does not) know that’] and *X (ne) sait (pas) où*. The canonical sentence presented in the scholar’s earlier work (“Semantic and Lexical Universals in French” 426) implemented the frame *X sait par où* (‘X knows which way’).

As for other syntactic frames, according to Peeters et al., there are also constructions not included in the canonical sentences. The first one is what they called “unconfirmed knowledge”, which seems not primitive, yet possibly universal, expressed in the syntactic frames ‘not know whether P’. They asserted that this expression involves both knowing and thinking: “if person X does not know whether person Y can come, X must have thought about whether or not Y can come, without reaching a conclusion, or without being able to know” (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 90). Other constructions are the already mentioned “*savoir*+ infinitive ‘know how to [do something]’” and a pattern “*know something about someone/something*” (Peeters et al., “NSM Exponents and Universal Grammar in Romance” 91).

### Change of tense – change in meaning

As has been shown in the case of *penser* (‘think’), the choice of tense (*passé composé* or *imparfait*) is important in French; it might trigger a significant change of meaning. Yet, this phenomenon concerns two more semantic primes belonging to mental predicates.

*Savoir* also changes its meaning depending on the tense. In *imparfait*, it means ‘knew’, for example *Je savais son nom* (‘I knew his surname’), *Je savais conduire* (‘I knew how to drive’) and in *passé composé* ‘found out, learned’, for instance *J’ai su son nom* (‘I found out his surname’), *J’ai su conduire* (‘I learned how to drive’).

The case of WANT is even more complicated. In *imparfait* it means ‘wanted’, for example *Je voulais voyager* (‘I wanted to travel’), *Je voulais un sandwich* (‘I wanted a sandwich’) and in *passé composé* ‘decided to, tried to’, for instance *J’ai voulu voyager mais je n’avais pas d’argent* (‘I decided to travel but I did not have money’), *J’ai voulu le finir mais je n’avais pas le temps* (‘I tried to finish it but I did not have time’). However, in the negation in *passé composé* it has a third meaning

‘refused to’, e.g. *Elle m’invite chez elle mais je n’ai pas voulu voyager* (‘She invited me but I refused to travel’).

#### IV. Lexical elaboration of the semantic prime THINK

##### Language specific epistemic verbs

French, as English and numerous other languages, has words with their meanings involving THINK, such as verbs: *oublier* (‘forget’), *décider* (‘decide’), *comprendre* (‘understand’), *résoudre* (‘solve’); adjectives: *bon/bonne* (‘right’), *mauvais/faux* (‘wrong’), *intelligent* (‘smart’), *stupid* (‘stupid’), *confus* (‘confused’), *prudent* (‘careful’); and nouns: *faute* (‘mistake’), *idée* (‘idea’), *attention* (‘attention’), *sens* (‘sense’) or *raison* (‘reason’).

As Goddard noticed, “many languages have language-specific specialized verbs of thinking (including many so-called “epistemic verbs”), whose meanings also involve KNOW and/or TRUE, usually in combination with other elements” (“Thinking Across Languages and Cultures” 117). The scholar gave several examples of English verbs, namely: ‘believe’, ‘reckon’, ‘suppose’, ‘guess’, ‘assume’, ‘suspect’ and ‘wonder’.

Wierzbicka paid special attention to the first of them because, as she reported, ‘believe’ plays a greatly significant role in the English-speaking world (qtd. in “Thinking Across Languages and Cultures” 118). The scholar has analyzed how the verb functions in the English-language discourse, especially in the syntactic frames ‘I believe’ and ‘I believe that’. She also discussed the semantic prime THINK and came to the conclusion that the construction ‘I think’, in particular without a complementizer ‘that’, is very frequent in English. Moreover, she presented its distinctive patterns of usage.

French has similar words, corresponding to English vocabulary items (some of them were mentioned in Goddard, “Thinking Across Languages and Cultures” 117), namely: *croire* (‘believe’), *trouver* (‘find’, ‘think’), *réfléchir* (‘reflect’), *se rappeler* (‘remember’), *sembler* (‘seems’; in the construction *Il me semble que...* ‘It seems to me that...’). The question is if they play the same role in the French-speaking world as ‘think’ or ‘believe’ do among those who belong to the English-speaking world.

The first researcher to make an attempt to answer that question was Kerry Mullan who conducted a cross-cultural comparative analysis of strategies for expressing opinions in Australian English and in French, focusing on English discourse marker ‘I think’ and three French expressions *je pense* (‘I think’), *je crois* (‘I believe, I think’), and *je trouve*, (‘I find, I think’). Their distribution in the

analyzed corpus (conversations between Australian and French native speakers) is as follows: 281 occurrences of ‘I think’, 133 occurrences of *je pense*, 36 occurrences of *je crois*, 59 occurrences of *je trouve* (Mullan, *Expressing Opinions in French and Australian English Discourse* 42).

The researcher found ‘I think’ and *je crois* to be “predominantly discourse markers” whereas *je trouve* as having “a more semantic role of expressing speaker’s opinion” (Mullan, *Expressing Opinions in French and Australian English Discourse* 253). She also compared the Australian English ‘I think’ with French *je pense*. The outcome suggested that when using ‘I think’, the speaker wants to express his/her viewpoint. In other words, he/she wills to differentiate between facts and opinions, which is, as the researcher reported, important to Australian English speakers (Mullan, *Expressing Opinions in French and Australian English Discourse*). However, the core meaning of *je pense* lacks this kind of element (distinguishing facts from opinions). The said French construction appears to be used for expressing opinions based on reflection, “where the speaker wishes to positively assert or claim a particular stance towards a proposition” (Mullan, *Expressing Opinions in French and Australian English Discourse* 255). The verb *penser* itself, as Mullan argued, is strongly related to reflection and cogitation. Therefore, the main meaning of *je pense* reflects an intellectual process and intellectualism, which are important for the speakers of French.

*Je crois*, on the other hand, expresses belief and confidence, often lying in personal opinions and values, and frequently connected with adjustment to culture and education. The last of the mentioned constructions, *je trouve*, is used when expressing an opinion evoked by personal past experience (Mullan, *Expressing Opinions in French and Australian English Discourse* 255).

### Language-specific “epistemic qualifiers”: adverbs, particles, and interjections

Cliff Goddard defines eponymous “epistemic qualifiers” as “a cover term for various linguistic devices [...] for qualifying one’s statements, for hedging one’s assertions, and for differentiating the strength of one’s assent to a proposition” (Goddard, “Thinking Across Languages and Cultures” 121). They encompass adverbial phrases, adverbs and particles. French, as English (Goddard, “Thinking Across Languages and Cultures” 121), has a number of “speaker-oriented” epistemic adverbs such as *probablement* (‘probably’), *apparemment* (‘apparently’), *vraisemblablement* (‘presumably’), *peut-être* (‘possibly’), *prétendument* (‘supposedly’, ‘allegedly’), *supposément* (‘allegedly’).

THINK-related meanings are also displayed as discourse particles and conversational formulas, which refer to the speech or reactions of the addressee (Goddard “Thinking Across Languages and Cultures” 122). Their French examples include *C’est vrai!* (‘That’s true!’), *Bien vu!* (‘Good thinking!’, ‘Good point!’), *Bonne idée!* (‘Good idea!’), *C’est ça!* (‘That’s right!’). According to Goddard, other discourse particles might reveal “cognitive meaning components” (“Thinking Across Languages and Cultures” 122). The scholar mentioned some English examples, including ‘wow!’ and ‘well’. The said vocabulary items presumably contain, as Goddard names them, “mental state components”, like “I didn’t think this would happen” or “I want to think about this well” (“Thinking Across Languages and Cultures” 122).

The French equivalent of ‘well’ *eh bien* (with a variant *eh ben*) is used in an array of different situations; it can mark comparison and contrast, express surprise or admiration, hesitation, irritation, or irony. It is also frequently used to emphasize the content that follows it. *Ben* is also used in confirmations and negations as *Ben oui* (‘Well, yes’) / *Ben non* (‘Well, no’) to indicate hesitance or to emphasize. For an emphasis, another expression is also used *Mais oui!* / *Mais non!* (‘Absolutely!’ / ‘Absolutely not!’).

The so-called “cognitive interjections” are also an interesting field of study. As Cliff Goddard submits, they have a semantic component ‘I think like this now’ and/or ‘I now know something’ (*Semantic Analysis* 167). English expressions of this kind include: ‘Ah-ha!’, ‘Oh-oh!’, ‘Gee!’, ‘Wow!’, ‘Mhm’. The list can go on and on. French speakers, on the other hand, use *Ouah!*, *Mince alors!* (‘Wow!’), *Heu*, *Hum* (both ‘hmm’), or *Ça alors!* (‘Gee!’).

## V. Summary

As shown, the section *Mental Predicates* consisting of 13 canonical sentences is very rich; it encompasses six NSM exponents of semantic primes: *penser* (THINK), *savoir* (KNOW), *vouloir* (WANT), *sentir* (FEEL), *voir* (SEE), and *entendre* (HEAR), which were studied by such scholars as Anna Wierzbicka, Cliff Goddard and Bert Peeters.

*Sentir* and *entendre* seem most problematic in French translation, due to their polysemy. The first one has strong smell connotations. The second one can also mean ‘understand’ or, in religious discourse, ‘fulfill the wish or a prayer’. Therefore, alternative translations are possible, mainly with the usage of *éprouver* (instead of *sentir*, 8a, 8b, 9a) and *ouïr* (instead of *entendre*, 8f, 11a, 13a). Each of them has different undertones. *Éprouver* refers to experiencing something, so I have rejected it for semantic reasons. *Ouïr*, in turn, seems to be a proper translation of HEAR (with

no polysemy). However, I have finally decided not to use it in canonical sentences for pragmatic reasons, mainly because nowadays *ouïr* is considered obsolete.

Another problem faced in translating canonical sentences into French is definitely the use of past tenses, since using *imparfait* or *passé composé* triggers significantly different meanings, especially where primes THINK, KNOW, WANT and FEEL appear in the sentence. Consequently, there are alternative translations of canonical sentences with the above mentioned primes, using *éprouver* ‘feel’, *sentir* ‘feel’, *vouloir* ‘want’ and *penser* ‘think’ in *imparfait* or *passé composé* (sentences no. 1, 1a, 8, 8c, 8d, 8e).

Also, the use of different semantic frames for THINK and WANT and their French counterparts, is a translation challenge. In French, unlike in English, *que* (‘that’) cannot be omitted in such constructions as *penser que* (‘to think that’) or *savoir que* (‘to know that’). This is visible in canonical sentences no. 1 and 2, and their French translations. However, in English different syntactic frames change the meaning. According to the scholars, English construction ‘I think’ without the complementizer ‘that’ has a “softening” effect because it expresses uncertainty and softens an assertion. As a consequence, it appears that French translations of ‘X thinks  $\emptyset$ ’ (i.e. *X pense que* in sentences no. 1 and 2) do not convey the softening effect of the English version.

As far as WANT is concerned, English construction ‘want somebody to do something’ does not require a conjunction. In French, on the other hand, *que* (‘that’) is necessary in the corresponding construction *vouloir que + subjonctif*. This is illustrated by canonical sentences no. 6 and 7. Yet, this syntactic difference does not carry with it any semantic change.

There are also some other alternative translations (8d, 8e, 9b, 9c) which do not influence the meaning of the sentence. The choice between *ça*, *ceci*, *cela* (as an equivalent of ‘this’ or ‘that’) is purely stylistic. *Ça* is definitely less formal than *ceci*, *cela*.

The lexical elaboration of THINK (*penser*) demonstrates that in French there are language specific epistemic verbs whose meanings involve THINK, such as *croire*, *trouver*, *réfléchir*, *rappeler* and *sembler*. Three of them, i.e. *penser*, *croire* and *trouver*, were examined by Kerry Mullan who compared cross-linguistically the Australian English ‘I think’ with the French constructions *je pense*, *je crois* (expressing belief and confidence) and *je trouve* (expressing opinions rooted in the past). The main difference between ‘I think’ and *je pense* is that the first expression is used when one wants to distinguish facts from opinions. *Je pense* appears to be deprived of this element.

Last but not least, French, like English, has a wide array of “epistemic qualifiers” connected with thinking, that is adverbs (e.g. *probablement, apparemment, vraisemblablement, peut-être, prétendument*), particles and conversational formulas (e.g. *Bonne idée!, C’est vrai!, Bien vu!, Ben oui, Ben non*) as well as cognitive interjections (e.g. *Ouah!, Mince alors!*).

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#### List of Abbreviations

1	first person
2	second person
3	third person
ART	article
CLIT	clitic
COMP	complementizer
IMPF	imperfect
INF	infinitive
LIG	ligature
NEG	negative marker
PCOMP	passé composé
PL	plural
PREP	preposition
PRES	present
REFL	reflexive
SG	singular
SJV	subjunctive

List of Semantic Primes in French  
(as of March 2015, based on Goddard and Junker)

JE ~ME ~MOI; TU ~TE~TOI; QUELQU'UN; QUELQUE CHOSE ~ CHOSE;  
CORPS; GENS; TYPE; PARTIE; MOTS; CE ~ ÇA; MÊME; AUTRE; UN; DEUX;  
BEAUCOUP; TOUT; CERTAINS ~DES ~ DE; PEU; QUAND ~ FOIS ~  
QUELQUEFOIS ~ MOMENT; MAINTENANT; (EN UN) INSTANT;  
PENDANT) QUELQUE TEMPS; LONGTEMPS; PEU DE TEMPS; AVANT;  
APRÈS; VOULOIR; NE PAS VOULOIR; SENTIR ~ SE SENTIR; FAIRE; DIRE;  
SAVOIR; VOIR; ENTENDRE; PENSER; ARRIVER; ÊTRE (QUELQUE PART);  
VIVRE; MOURIR; IL Y A; ÊTRE (QUELQU'UN QQCH); ÊTRE À (MOI);  
BOUGER; TOUCHER; DANS; OÙ ~ ENDROIT ~ QUELQUE PART; ICI; AU –  
DESSUS; AU – DESSOUS; COTÉ; PRÈS; LOIN; NE ... PAS ~DON'T; POUVOIR;  
PARCE QUE ~ À CAUSE DE; SI ; PEUT - ÊTRE (QUE); COMME ; TRÈS; PLUS  
~ N E ... PLUS; PETIT; GRAND; MAL; BIEN; VRAI.