

A set of 400 pictures standardized for French: Norms for name agreement, image agreement, familiarity, visual complexity, image variability, and age of acquisition

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The present article provides French normative measures for 400 line drawings taken from Cycowicz, Friedman, Rothstein, and Snodgrass (1997), including the 260 line drawings that were normed by Snodgrass and Vandervart (1980). The pictures have been standardized on the following variables: name agreement, image agreement, familiarity, visual complexity, image variability, and age of acquisition. These normative data also include word frequency values and the first verbal associate (taken from Ferrand & Alario, 1998). The six variables obtained are important because of their potential effect in many fields of psychology, especially the study of cognitive processes such as visual perception, language, and memory.

In recent years, experiments employing pictures of objects have proliferated. However, little standardization of line drawings exists. To date, each investigator has been forced to develop his or her own set of pictures, which are necessarily highly idiosyncratic (Snodgrass, Levy-Berger, & Haydon, 1985). One exception is the pioneering work of Snodgrass and Vandervart (1980). These authors have provided a set of 260 pictures (black-and-white line drawings) that have been standardized on four variables of relevance to experimentation in visual perception, language, and memory. The four variables collected were name agreement (the degree to which subjects agree on the name of the picture), image agreement (the degree to which images generated by subjects to a picture's name agree with the picture's appearance), familiarity (the familiarity of the concept depicted), and visual complexity (the amount of lines and details in the drawing). These normative data for pictures were collected in American English for young adults.

Since then, other normative data for pictures have been collected by Berman, Friedman, Hamberger, and Snodgrass (1989) for 5- and 6-year-old children and by Cycowicz, Friedman, Rothstein, and Snodgrass (1997) for 8- to 10-year-old children. More recently, these normative

data have also been collected for adults in British English (Barry, Morrison, & Ellis, 1997; Vitkovitch & Tyrrell, 1995), in Spanish (Sanfeliu & Fernández, 1996), and in Dutch (Martein, 1995). However, to our knowledge, there is no such normative database available in French. Because it is vital for the experimenter to have as much control of the experimental situation as possible, careful selection of stimuli is necessary. The present article provides normative measures for 400 line drawings and their corresponding names viewed by French-speaking young adults.

When available, these normative studies have been extremely useful in many fields of psychology, including memory and language, through the use of different kinds of subjects (e.g., children, adults, and pathological cases). Concerning the study of language, for instance, these databases have been used to study the processes involved in picture naming (e.g., Ferrand, Grainger, & Segui, 1994; Ferrand, Humphreys, & Segui, 1998; Humphreys, Lamote, & Lloyd-Jones, 1995; Johnson, Paivio, & Clark, 1996; Snodgrass & Yuditsky, 1996) and, more generally, in speech production (e.g., Ferrand & Segui, 1998; Ferrand, Segui, & Grainger, 1996). These normative data have also been very useful in the fields of perceptual identification and recognition (e.g., Kroll & Potter, 1984; Snodgrass & Poster, 1992) and implicit memory (e.g., Feenan & Snodgrass, 1990; Hirtshman, Snodgrass, Mingos, & Feenan, 1990; Snodgrass & Feenan, 1990; Snodgrass, Smith, Feenan, & Corwin, 1987; Snodgrass & Surprenant, 1989).

The motivation for the present study was to obtain a normative database for pictorial material that will be useful for future studies with French-speaking subjects. We conducted a study in which the stimuli were the 400 pictures used by Cycowicz et al. (1997), including the 260 line drawings that were normed by Snodgrass and Van-

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derwart (1980). In closely following Snodgrass and Vandewart's procedure, norms for name agreement, image agreement, picture familiarity, visual complexity, image variability, and age of acquisition were collected. The normative database also include the most common name given to each of the 400 concepts (modal name), word frequency (taken from Content, Mousty, & Radeau, 1990), and the first verbal associate of the names of the pictures (taken from Ferrand & Alario, 1998).

In what follows, we briefly discuss empirical findings related to each variable. *Name agreement* refers to the degree to which subjects agree on the name of the picture. This information is important for naming latency studies, picture-name matching studies, recall memory studies, and recognition studies in which verbal encoding is manipulated. Name agreement is measured by the number of different names given to a particular picture across subjects. Pictures that elicit many different names have lower name agreement than those eliciting a single name. Name agreement is a robust predictor of naming difficulty. Pictures with a single dominant response are named more quickly and accurately than those with multiple responses (Barry et al., 1997; Lachman, Shaffer, & Hennikus, 1974; Paivio, Clark, Digdon, & Bons, 1989; Vitkovitch & Tyrrell, 1995). More important, name agreement affects naming independently of the effects of correlated attributes, such as word frequency and rated age of name acquisition (Lachman et al., 1974).

Image agreement refers to the degree to which images generated by subjects to a picture's name agree with the picture's appearance. Barry et al. (1997) showed that pictures with higher ratings of image agreement were named faster than were those with lower ratings. They suggested that image agreement has its influence at the level of object recognition, so that the closer a picture is to one's mental image of an object, the faster the naming time for that item will be.

Familiarity refers to the familiarity of the concept depicted. Familiarity has been shown to have important effects on various memory and cognitive processing tasks (see, e.g., Gernsbacher, 1984). In particular, Snodgrass and Yuditsky (1996) and Feyerisen, Van der Borcht, and Seron (1988) showed that rated familiarity is an important predictor of picture-naming latencies, so that the more familiar a concept is, the faster the naming time for that item will be.

Visual complexity refers to the amount of lines and details in the drawing. It is supposed to determine the ease of processing at or before the structural stage of object recognition. Visual complexity may affect such variables as naming latencies, tachistoscopic recognition thresholds, and memorability. Early research using pictorial stimuli has established that, when complexity is manipulated, more complex stimuli are more difficult to process than simple stimuli (Atrneave, 1957; Ellis & Morrison, 1998). However, other investigators showed that complex objects are identified and named as readily as sim-

ple objects (Biederman, 1987; Paivio et al., 1989; Snodgrass & Corwin, 1988; Snodgrass & Yuditsky, 1996).

For *frequency* and *age of acquisition*, picture-naming latencies decrease as name frequency increases (Oldfield & Wingfield, 1965) and increase as age of word acquisition increases (Carroll & White, 1973; Ellis & Morrison, 1998). It is possible that the influence of word frequency on learning, memory, and perception depends on another attribute, such as the age at which the particular word was first learned. Some investigators (Carroll & White, 1973; Ellis & Morrison, 1998; Morrison, Chapell, & Ellis, 1997; Morrison, Ellis, & Quinlan, 1992) suggested that age of acquisition is a more important variable than frequency in print. However, Barry et al. (1997) and Snodgrass and Yuditsky (1996) found that the time taken to name a pictured object correctly was affected both by rated age of acquisition and by the frequency of the name (in accordance with Lachman, 1973; Lachman et al., 1974). Interestingly, Barry et al. (1997) showed that the age-of-acquisition effect interacted with frequency, the age-of-acquisition effect being more pronounced for pictures with low-frequency names.

METHOD

Subjects

A total of 173 students from introductory courses in psychology from the Ecole des Psychologues Praticiens and from Université René Descartes in Paris participated in the study. Different subjects participated in each of the six tasks. There were 28 in the name agreement task, 30 in the image agreement task, 30 in the familiarity task, 29 in the visual complexity task, 30 in the image variability agreement task, and 26 in the age-of-acquisition task. All the subjects were native French speakers and participated voluntarily as a course activity. The subjects were run in groups of from 26 to 30 in a classroom.

Materials

The pictures were the 400 black-and-white line drawings of common objects taken from Cycowicz et al. (1997). These pictures were downloaded from the Internet (<http://www.nyspi.cpmc.columbia.edu/nyspi/respaps/picnorm.htm>). Some of the original line drawings ($n = 7$) were replaced for obvious reasons: The pictures had been selected in the American context (things such as a baseball bat, a football helmet, or a pretzel are more familiar to English speakers in America than to French speakers in France). In particular, we replaced the following drawings (a baseball bat, a football, a football helmet, a fishing reel, a grocery bag, a baseball glove, and a pretzel) by drawings of objects more common in the French speakers' realm of experience (a ski, a French croissant, a motorbike helmet, a swimsuit, a rugby ball, a fishing rod, and a supermarket caddie). These seven pictures were adapted from two French books of pictures (*Des Mots en Images*, 1988; *L'imagier du Père Castor*, 1991; they are available on request).

Procedure

The procedure closely followed the steps described by Snodgrass and Vandewart (1980) and by Morrison et al. (1997; for age of acquisition), both in terms of the tasks performed and in the way the tasks were done.

The name agreement task, the image agreement task, the familiarity task, and the complexity task were run in a similar way. However, for the image variability task and the age-of-acquisition task,

RESULTS AND DISCUSSION

the modal name of the object (instead of the object itself) was presented to the subjects. The 400 pictures were projected sequentially on a large white screen at the front of a slightly darkened room, using an overhead projector. At the beginning of each task, the subjects were read the instructions and encouraged to answer carefully and consistently. They were given individual answer sheets and instructed to respond to every drawing. They were informed of the general nature of the pictures—that is, that they were relatively simple black-and-white outline drawings. Each slide was presented for a period of 5 sec. Halfway through the slides, the subjects were given a 15-min rest period. The total amount of time was about $1\frac{1}{2}$ h.

In the name agreement task, the subjects were instructed to identify the drawing with the first name that came to mind and to write the name on the answer sheet. They were told that a name could consist of more than one word. If that was not possible, they had to indicate whether the reason was *don't know the object* (DKO), *don't know the name* (DKN), or *tip of the tongue* (TOT).

In the image agreement task, the subjects were asked to judge how closely each picture resembled their mental image of the object. Prior to presenting each picture, the experimenter called out the picture's most common name, waited approximately 5 sec, and then projected the picture on the screen. During the 5-sec period, the subjects looked at the blank screen and formed their mental image of the named object. Following the appearance of the picture on the screen, the subjects rated the degree of agreement between their image and the picture, using the 5-point scale: A rating of 1 indicated *low agreement*, that the picture provided a poor match to their image, and a rating of 5 indicated *high agreement*.

In the familiarity task, the subjects were asked to judge the familiarity of the concept of each picture "according to how usual or unusual the object is in your realm of experience." Familiarity was defined as "the degree to which you come in contact with or think about the concept." They were told to rate the concept itself, rather than the way it was drawn. Their answer to each item was again a whole number from a 5-point scale (1 = *a very unfamiliar object*, 5 = *a very familiar object*). The subjects were encouraged to employ the full range of scale values throughout the set of pictures.

The visual complexity task required the subjects to rate the complexity of each drawing, rather than the complexity of the object it represented. They also had to provide ratings from a 5-point scale (1 = *drawing very simple*, 5 = *drawing very complex*). Complexity was defined as the amount of details or the intricacy of the lines in the picture.

The two remaining tasks (image variability and age of acquisition) consisted of judgments on the names of the pictures. No overhead projector was used here. The subjects were given a four-page booklet with the 400 names of the pictures. In the image variability task, they were instructed to rate on a 5-point scale (1 = *few images*, 5 = *many images*) whether the name evoked few or many different images for that particular object. In the age-of-acquisition task, the subjects were asked to estimate the age at which they thought they had learned each of the names, in its written or its oral form. We altered the scale used by Morrison et al. (1997) from 7 points to 5 points, where 1 = *learned at 0–3 years* and 5 = *learned at age 12+*, with 3-year age bands in between. For this specific task, 17 words were repeated, to provide a reliability check. The correlation between these repeated ratings was .94, and the means were not significantly different [2.68 vs. 2.56; $t(16) = 0.11$].

Concerning verbal association measures, we report Ferrand and Alario's (1998) results (when available for the present stimuli). Overall, 263 associations were available out of the 400 stimuli. These free association norms were collected by presenting a large group of French-speaking subjects ($n = 89$) with a written stimulus word and asking them to respond with the first word they think of, as quickly as they can (for details, see Ferrand & Alario, 1998).

A summary of the rating data obtained from our sample of French-speaking subjects is presented in Appendix A. To allow for easy reference and data comparison, entries are listed according to the identifying numbers originally assigned to each drawing by Cycowicz et al. (1997). Moreover, a computer file (Excel or ASCII format) with all the data is available on request for research facilities. For each picture, the following information is presented: (1) the most frequent name given in French (with an English translation); (2) two measures of name agreement, the statistic H (taken from Snodgrass & Vandervart, 1980) and the percentage of subjects producing the most common name; and (3) the means and standard deviations for image agreement, familiarity, visual complexity, image variability, and age of acquisition. Along with the ratings obtained for French-speaking subjects, Appendix A presents the frequency of the single name (taken from Content et al., 1990), as well as the first verbal associate (obtained by Ferrand & Alario, 1998). Appendix B lists the alternate names given to each drawing, with an indication of their frequency. A frequency of zero indicates that the single-word name did not occur in the Content et al. corpus. Because the Content et al. corpus does not provide counts for names of more than one word, these unavailable frequencies are indicated by a dash. Failures in the naming task are listed as DKN, DKO, and TOT. All nondominant names given for each concept are listed and accompanied by their frequencies (when available).

Following Snodgrass and Vandervart (1980), we used a strict criterion for counting different instances of names when computing H values. In many cases, the name given by a subject was similar to but not identical with an established name category. A picture that elicited the same name from every subject in the sample who was able to name it has an H value of .00. Increasing H values indicate decreasing name agreement and, generally, decreasing percentages of subjects who all gave the same name. According to Snodgrass and Vandervart,

the H value captures more information about the distribution of names across subjects than does the percentage agreement measure. For example, if two concepts both are given their dominant name by 60% of the subjects, but one is given a single other name and the second is given four other names, both concepts will have equal percentage agreement scores, but the first will have a lower H value. (p. 184)

Table 1 presents summary statistics for the following indices: H (reflecting name agreement), percentage of subjects producing the modal names, image agreement, familiarity, complexity, variability, age of acquisition, and frequency. Although H and percentage are two measures of name agreement, following Snodgrass and Vandervart's (1980) arguments, we will use H as the measure of name agreement. The 25th (Q1) and the 75th (Q3) percentiles are shown to facilitate selection of con-

Table 1
Summary Statistics for All Variables

Statistic	Name Agreement		Image Agreement	Familiarity	Complexity	Image Variability	A-A		F
	H*	%					A-A	France	
M	0.36	84.63	3.44	2.72	3.09	2.76	2.56	29.82	
SD	0.43	20.31	0.78	1.19	0.92	0.63	0.79	78.96	
Median	0.15	96	3.57	2.42	3.07	2.60	2.51	7.04	
Range	1.87	82	3.90	3.94	4	3.50	3.65	892	
Min	0	18	1	1.03	1	1.20	1.12	0	
Max	1.87	100	4.90	4.97	5	4.70	4.77	892	
Q1	0	75	2.97	1.73	2.38	2.30	1.95	1.61	
Q3	0.65	100	4	3.77	3.74	3.17	3.08	21.88	
IRQ	0.65	25	1.03	2.04	1.36	0.87	1.13	20.27	
Skew	3.33	0.19	0.72	1.98	0.97	1.90	1.02	2.74	

Note—*H*, name agreement; A-A, age of acquisition; *F*, frequency (taken from Content, Mousty, & Radeau, 1990); Q1, 25th percentile; Q3, 75th percentile; IRQ, interquartile range; skew, (Q3 – Median)/(Median – Q1); >1 is positively skewed. *Increasing *H* values indicate decreasing name agreement.

cepts from the extremes of the distribution. The distribution of *H* values has a low mean and is positively skewed, reflecting the fact that many concepts show high name agreement.

Table 2 presents summary statistics for the following indices: *H*, image agreement, familiarity, and complexity. This table contains the summary for the French samples of the current study, the Spanish-speaking samples reported by Sanfeliu and Fernández (1996), and the English-speaking samples reported by Snodgrass and Vandervart (1980). As can be seen from this table, there were small differences for image agreement, familiarity, and complexity. There was a larger difference when the *H* value was considered. The English-speaking sample had bigger *H* values than did the French and Spanish ones. It seems to indicate that the French sample and the Spanish sample showed less variability in the number of names applied to objects than did the English-speaking sample.

We performed two correlational analyses on the data. The first one correlated (1) the data provided by Snodgrass and Vandervart (1980) with the data obtained in the present study (for the 253 drawings common to both studies) for *H*, image agreement, familiarity, and visual

complexity and (2) the data provided by Sanfeliu and Fernández (1996) with the data obtained in the present study for the same variables. As is shown in Tables 3 and 4, there were fairly high and significant correlations for all the variables. Correlations were higher for familiarity and complexity (for both French–English and French–Spanish) than for name agreement (*H* and %) and image agreement.

The second correlational analysis concerned the data obtained in the present study for the 400 line drawings taken from Cycowicz et al. (1997). To determine the degree of relationship among our measures and between them and some important measures already available, we computed the interitem correlations among all the attributes presented in Appendix A (following Snodgrass & Vandervart, 1980). Table 5 shows the matrix of correlations for all the concepts, with the significant correlation coefficients marked with an asterisk. Because frequency measures (taken from Content et al., 1990) were available for only 355 of the 400 concept names, a separate set of correlations was computed for this subset.

As was expected, the two measures of name agreement (*H* and %) show a high negative correlation (–.952 in Table 5). The correlations among the other measures col-

Table 2
Summary Statistics for Four Variables: American, Spanish, and French Samples
(for Snodgrass and Vandervart Pictures)

Statistic	Name Agreement (<i>H</i>)			Image Agreement			Familiarity			Complexity		
	U.S.	Spain	France	U.S.	Spain	France	U.S.	Spain	France	U.S.	Spain	France
<i>M</i>	0.56	0.27	0.28	3.69	3.71	3.46	3.29	3.12	3.06	2.96	2.67	3.00
<i>SD</i>	0.53	0.41	0.36	0.58	0.60	0.78	0.96	1.11	1.21	0.89	0.93	0.96
Median	0.42	0.12	0.15	3.72	3.84	3.60	3.32	3.06	2.92	2.93	2.52	2.95
Range	2.55	2.19	1.41	2.68	3.03	3.73	3.72	3.67	3.90	3.78	3.68	4
Min	0	0	0	2.05	1.74	1.17	1.18	1.27	1.07	1	1.05	1
Max	2.55	2.19	1.41	4.73	4.77	4.90	4.94	4.94	4.97	4.78	4.73	5
Q1	0.12	0.04	0	3.27	3.29	2.93	2.49	2.16	1.97	2.28	1.98	2.28
Q3	0.87	0.28	0.47	4.15	4.16	4.05	4.09	4.08	4.17	3.59	3.39	3.71
Skew	1.5	2.39	2.13	0.96	–0.71	0.67	0.93	0.01	1.32	1.02	0.28	1.13
Valid cases	260	254	256	260	245	256	260	254	256	260	254	256

Note—Q1, 25th percentile; Q3, 75th percentile; skew, (Q3 – Median)/(Median – Q1); >1 is positively skewed. * Increasing *H* values indicate decreasing name agreement.

Table 3
Significant Correlations Among the Measured Variables in the French and American Samples (for Snodgrass and Vandervart Pictures)

French Sample	American Sample				
	NA (H)	%	IA	Fam	Comp
Name agreement (H)	.428		.429		
Name agreement (%)			.498		
Image agreement				.913	
Familiarity					.945
Visual complexity					.945

Note—NA, name agreement; IA, image agreement; Fam, familiarity; Comp, visual complexity. All listed correlation coefficients for the present study and the Snodgrass and Vandervart (1980) study are significant at $p < .01$.

Table 4
Significant Correlations Among the Measured Variables in the French and Spanish Samples (for Snodgrass and Vandervart Pictures)

French Sample	Spanish Sample (Sanfeliu & Fernández, 1996)				
	NA (H)	%	IA	Fam	Comp
Name agreement (H)	.313		.506		
Name agreement (%)			.524		
Image agreement				.778	
Familiarity					.727
Visual complexity					.727

Note—NA, name agreement; IA, image agreement; Fam, familiarity; Comp, visual complexity. All listed correlation coefficients for the present study and the Sanfeliu and Fernández (1996) study are significant at $p < .01$.

lected in the present study (familiarity, complexity, image agreement, image variability, and age of acquisition) are all relatively small in magnitude, suggesting that the measures represent independent attributes. Overall, these correlations are similar to the ones obtained by Snodgrass and Vandervart (1980) and by Cychowicz et al. (1997).

Familiarity is negatively correlated with age of acquisition ($-.578$), suggesting that names of concepts that are familiar tend to be learned at an early age. As is shown in Table 5, familiarity is positively correlated with frequency (.360). The correlation between age of acquisition and frequency, although modest ($-.367$), is also significant. Of the correlations among our own measures, name agreement and image agreement are negatively correlated ($-.343$), suggesting that concepts that have

many names also evoke many different images. The correlation between age of acquisition and name agreement (.453) suggests that, for concepts acquired at an early age, the level of agreement is high. The fact that French speakers' name agreement correlates less with word frequency than with age of acquisition is similar to the finding that, for American and English speakers, age of acquisition has a greater influence on picture naming than do other variables (Carroll & White, 1973; Ellis & Morrison, 1998). The correlations between image variability and both age of acquisition ($-.654$) and familiarity (.616) suggest that concepts that are learned early evoke more images than do concepts that are learned late. Finally, visually complex pictures tend to be rated as unfamiliar (significant correlation of $-.391$).

Table 5
Correlations Among the Measured Variables in a French Sample for Cychowicz, Friedman, Rothstein, and Snodgrass (1997) Pictures

Variable	NA	%	IA	Fam	Comp	I-Var	A-A	Freq†
Name agreement (H)	1.000		1.000					
Name agreement (%)	-.952*		.370*					
Image agreement	-.343*		.215*					
Familiarity	-.183*		-.035	1.000				
Visual complexity	.081		-.009	-.391*	1.000			
Image variability	-.255*		.317*	.616*	-.210*	1.000		
Age of acquisition	.453*		-.524*	-.578*	.214*	-.654*	1.000	
Frequency†	-.140*		.151*	-.005	.360*	-.136*	.340*	1.000

Note—NA, name agreement; IA, image agreement; Fam, familiarity; Comp, visual complexity; I-Var, image variability; A-A, age of acquisition; Freq, frequency (taken from Content, Mousty, & Radeau, 1990). *Correlation coefficients significant at $p < .01$. †Concerning the frequency variable, correlations among all measured variables were obtained for a sample of 355 concepts only, for which frequency values were available.

CONCLUSION

The main goal of the present research was to collect normative data for pictorial stimuli that could be used in research with French-speaking samples (see Sarfelin & Fernandez, 1996, for the same approach in Spanish). Descriptive ratings for a number of picture attributes of the drawings previously presented by Cyccowicz et al. (1997) and by Snodgrass and Vandervart (1980) with American English-speaking subjects are now available for French-speaking subjects. We believe that these normative data will be particularly useful for French researchers interested in memory, language, and other cognitive processes.

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APPENDIX A

The following information is shown below: Item is the identifying number of each picture; intended name is the intended name for each concept; modal name is the name given by the majority of subjects; the *H* statistic and percentage agreement (%) are two measures of name agreement; the means and standard deviations are for ratings of image agreement, familiarity, complexity, variability, and age of acquisition; *F* is the frequency for each single-word name (taken from Content, Mousty, & Radeau, 1990); the main verbal association for each single-word name is presented when available (taken from Ferrand & Alario, 1998).

Item	Intended Name	Modal Name	English	Name Agreement		Image Agreement		Familiarity		Complexity		Variability		Age of Acquisition		<i>F</i>	Verbal Association	%
				<i>H</i>	%	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
1	accordéon	accordéon	accordion	.00	100	3.53	0.73	1.63	0.81	4.86	0.35	2.17	0.59	3.08	0.89	4.33	musique	49.4
2	avion	avion	airplane	.29	96	3.93	1.08	2.63	1.16	3.17	0.76	3.33	1.06	1.92	0.93	49.8	ciel	15.7
3	crocodile	crocodile	alligator	.29	96	4.23	0.94	1.43	0.73	4.34	0.72	2.37	0.72	2.23	0.65	3.65	dents	20.2
4	ancre	ancre	anchor	.00	100	4.13	1.17	1.90	0.92	2.14	0.58	2.33	0.66	3.32	0.95	6.12	bateau	39.3
5	fourmi	fourmi	ant	.62	82	2.80	1.42	2.30	0.95	4.52	0.57	2.60	1.07	1.92	0.69	10.5	cigale	18.0
6	pomme	pomme	apple	.00	100	4.00	0.79	4.40	0.72	1.55	0.63	3.23	0.86	1.46	0.58	30.41	poire	16.8
7	bras	bras	arm	.15	96	4.07	1.01	4.93	0.25	2.28	0.65	2.90	1.24	1.50	0.71	346	jambe	27.0
8	flèche	flèche	arrow	.00	100	3.83	0.87	1.53	0.73	1.93	0.37	2.80	1.06	2.52	0.77	17.91	arc	52.8
9	artichaut	artichaut	artichoke	.23	89	4.23	0.86	2.13	1.11	3.59	0.87	1.97	0.41	3.04	1.00	1.44	coeur	24.7
10	cendrier	cendrier	ashtray	.16	93	3.30	1.12	4.00	1.23	2.62	0.82	3.30	1.21	2.85	0.92	2.72	cigarette	43.8
11	asperge	asperge	asparagus	.16	93	3.40	0.93	2.37	1.19	3.24	0.87	1.93	0.45	3.19	0.85	1.61	légume	21.3
12	hache	hache	axe	.00	96	4.20	1.00	1.57	0.77	2.55	0.69	2.23	0.63	2.64	0.76	9.35	couper	16.8
13	landau	landau	baby carriage	.80	79	3.47	1.01	2.07	1.17	3.97	1.02	2.47	0.82	2.54	0.99	1.57	—	—
14	balle	ballon	ball	.00	100	2.57	0.82	2.87	0.97	2.45	0.91	3.07	1.05	1.27	0.45	38	tennis	46.1
15	ballon	ballon	balloon	.40	89	1.23	0.77	2.50	0.90	1.52	0.78	3.47	1.07	1.35	0.49	12.55	football	32.6
16	banane	banane	banana	.00	100	4.60	0.67	3.87	0.94	1.21	0.41	2.23	0.68	1.58	0.70	2.68	jaune	19.1
17	grange	grange	barn	1.12	50	2.40	1.16	2.23	1.43	3.52	0.83	2.57	0.77	3.27	0.87	17.27	—	—
18	tonneau	tonneau	barrel	.79	71	4.57	0.73	1.27	0.45	4.10	0.56	2.33	0.71	3.15	0.92	9.91	vin	73.0
19	ski	ski	ski	.00	100	4.03	0.85	2.73	1.14	2.83	0.76	3.17	1.21	2.64	0.86	1.61	neige	47.2
20	panier	panier	basket	.00	100	2.63	0.76	2.30	1.15	4.59	0.57	3.13	0.94	1.92	0.69	22.59	osier	22.5
21	ours	ours	bear	.00	100	3.07	1.01	1.60	1.00	3.93	0.80	2.67	0.80	1.62	0.75	10.12	peluche	25.8
22	lit	lit	bed	.51	86	3.40	0.67	4.93	0.37	2.62	0.49	3.73	1.08	1.24	0.52	204	dormir	46.1
23	abeille	abeille	bee	.47	82	3.63	1.07	2.43	1.01	4.93	0.26	2.33	0.84	1.88	0.71	16.76	miel	50.5
24	scarabée	scarabée	beetle	.26	36	3.70	1.06	1.83	0.99	4.21	0.82	2.17	0.59	3.08	0.80	1.74	—	—
25	cloche	cloche	bell	.15	96	3.70	0.79	2.10	0.76	3.00	0.60	2.57	0.73	2.19	0.80	38.67	église	37.1
26	ceinture	ceinture	belt	.41	86	4.23	0.77	4.13	1.07	1.93	0.65	2.87	0.90	2.42	0.70	24.84	pantalon	34.8
27	vélo	vélo	bicycle	.41	86	4.20	0.76	3.37	1.03	4.17	0.85	3.57	1.01	1.80	0.71	4.42	roues	19.1
28	oiseau	oiseau	bird	.41	86	3.90	1.12	3.87	1.28	3.38	0.86	4.70	0.70	1.38	0.57	112	nid	13.5
29	chemisier	chemise	blouse	.65	64	1.17	0.59	4.47	0.97	3.76	0.79	2.45	0.78	2.96	0.82	0.63	boutons	14.6
30	livre	livre	book	.29	96	4.07	1.05	4.97	0.18	2.14	0.74	4.37	0.85	1.50	0.58	371	lire	18.0
31	botte	botte	boot	.40	89	2.47	1.04	3.73	1.01	2.69	0.76	3.07	1.11	2.04	0.77	21.39	pluie	19.1
32	bouteille	bouteille	bottle	.00	100	4.00	0.95	4.20	0.81	1.83	0.80	4.17	0.87	1.92	0.80	40.67	vin	56.1
33	noeud	noeud	bow	.00	100	1.57	1.22	2.40	1.00	3.24	0.64	3.07	0.98	2.31	0.79	23.27	papillon	27.0
34	bol	bol	bowl	.29	93	3.30	1.21	4.47	0.82	1.62	0.73	3.47	1.07	1.38	0.50	8.04	lait	23.6
35	boîte	boîte	box	.26	89	2.70	1.49	2.97	1.03	1.21	0.62	3.87	1.14	1.65	0.75	53.05	allumettes	10.1
36	pain	pain de mie	bread	1.34	46	1.57	0.90	4.57	0.68	1.69	0.54	3.60	1.10	1.27	0.45	86.87	mie	22.5
37	balai	balai	broom	.00	100	3.77	1.43	4.10	0.84	2.28	0.75	2.60	0.93	1.95	0.80	7.23	brosse	27.0
38	brosse	brosse	brush	.15	96	2.67	1.27	4.23	1.10	2.69	0.81	3.17	1.02	1.77	0.71	9.27	cheveux	41.5
39	bus	bus	bus	.34	89	4.00	1.02	4.03	1.00	3.76	1.09	3.17	0.87	2.19	0.80	0	transport	13.5
40	papillon	papillon	butterfly	.00	100	4.37	0.49	2.33	0.88	4.10	0.49	3.57	1.17	1.92	0.95	16.08	nuit	15.7
41	bouton	bouton	button	.00	100	4.80	0.48	4.43	0.90	2.03	0.63	3.77	1.19	1.85	0.78	29.31	chemise	18.0

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name Agreement		Image Agreement		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%		
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD				M	SD
42	gâteau	gâteau	cake	.00	100	2.87	0.90	3.67	0.99	2.34	0.61	4.10	0.99	1.27	0.53	11.35	chocolat	42.7		
43	chameau	chameau	camel	.68	50	2.70	1.51	1.20	0.48	3.86	0.79	2.17	0.70	2.62	0.90	9.01	bosses	29.2		
44	bougie	bougie	candle	.00	100	4.03	0.85	3.60	1.03	2.45	0.63	3.43	1.01	1.96	0.68	17.86	lumière	16.8		
45	canon	canon	cannon	.16	93	3.43	1.04	1.07	0.25	4.62	0.49	2.03	0.61	3.08	0.98	45.13	guerre	39.3		
46	casquette	casquette	cap	.29	96	1.80	0.85	2.57	1.07	2.28	0.75	3.07	0.83	2.27	0.78	14.84	soleil	18.0		
47	voiture	voiture	car	.15	96	3.00	0.95	4.53	1.07	3.83	0.54	4.43	0.82	1.40	0.58	118	rouler	11.2		
48	carotte	carotte	carrot	.00	100	4.47	0.63	3.90	0.96	3.07	0.92	2.30	0.79	1.58	0.64	3.14	lapin	23.6		
49	chat	chat	cat	.00	100	3.50	1.04	3.63	1.43	3.59	0.87	4.17	1.05	1.35	0.49	43.26	chien	30.3		
50	chenille	chenille	caterpillar	.34	89	3.83	1.21	1.47	0.73	3.83	0.89	2.37	0.81	2.65	0.75	6.63	papillon	31.5		
51	céleri	céleri	celery	.65	61	1.80	1.27	2.00	1.14	4.66	0.61	1.87	0.68	3.46	1.03	0.63	légume	27.0		
52	chaîne	chaîne	chain	.67	79	2.93	1.66	2.93	1.39	2.72	1.03	3.17	1.15	2.69	0.84	40.50	vélo	14.6		
53	chaise	chaise	chair	.00	100	3.13	0.97	4.93	0.25	2.24	0.74	3.43	1.14	1.38	0.64	81.68	table	34.8		
54	cerise	cerise	cherry	.29	93	3.77	1.19	3.13	1.14	1.34	0.61	2.73	1.01	2.00	0.80	7.01	rouge	29.2		
55	poule	poule	chicken	.47	82	4.37	0.76	2.30	1.09	3.79	0.86	2.47	0.82	1.50	0.58	21.82	coq	36.0		
56	burin	tournevis	chisel	.98	29	2.87	1.70	1.73	0.94	2.97	0.68	1.67	0.84	4.04	0.77	0.46	marteau	19.1		
57	église	église	church	.15	96	3.27	0.91	2.97	1.30	3.86	0.74	3.80	1.10	2.27	0.87	175	clocher	11.2		
58	cigare	cigare	cigar	.00	100	3.80	0.81	2.00	1.08	3.59	1.05	2.33	0.80	2.96	1.04	14.12	fumée	21.3		
59	cigarette	cigarette	cigarette	.29	93	3.93	0.94	4.10	1.24	2.17	0.89	2.87	1.07	2.38	0.80	44.71	fumée	20.2		
60	horloge	horloge	clock	1.01	54	1.70	0.79	4.73	0.52	2.14	0.79	3.57	0.90	2.69	0.97	13.86	heure	55.0		
61	pince à linge	pince à linge	clothespin	.00	100	4.83	0.46	3.10	1.21	3.07	0.75	2.40	1.07	2.65	0.80	3.48	linge	21.3		
62	nuage	nuage	cloud	.40	89	2.90	0.80	3.87	1.28	2.45	0.91	3.47	1.14	1.68	0.63	64.11	pluie	27.0		
63	clown	clown	clown	.29	93	3.47	0.90	1.83	0.83	4.41	0.63	2.93	0.98	1.52	0.77	2.59	cirque	22.5		
64	manteau	manteau	coat	.29	93	3.23	0.90	4.53	0.82	2.59	0.63	3.73	1.14	1.76	0.83	47.94	froid	24.7		
65	peigne	peigne	comb	.00	100	3.83	0.95	3.87	1.22	2.69	0.66	2.62	0.82	2.00	0.75	6.08	cheveux	48.3		
66	maïs	maïs	corn	.56	75	3.90	1.18	3.10	0.80	4.21	0.68	2.40	0.77	2.60	0.87	7.48	jaune	20.2		
67	canapé	canapé	couch	.34	89	3.17	1.02	4.40	0.89	2.31	0.81	3.27	1.14	2.16	0.90	8.93	lit	22.5		
68	vache	vache	cow	.00	100	3.40	0.89	2.63	0.96	3.59	0.68	2.73	0.83	1.60	0.76	35.26	lait	42.7		
69	couronne	couronne	crown	.00	100	3.33	0.96	1.40	0.62	4.10	0.67	2.77	0.97	2.20	0.82	28.33	roi	39.3		
70	tasse	tasse	cup	.15	96	3.60	0.81	4.83	0.46	1.69	0.47	3.50	0.94	2.16	0.80	21.31	à café	39.3		
71	cerf	cerf	deer	.29	93	3.80	0.96	1.87	1.07	3.66	0.72	2.20	0.66	2.88	1.14	3.82	biche	25.8		
72	bureau	bureau	desk	.00	100	3.20	0.81	4.60	0.93	2.97	0.73	3.67	0.88	2.65	0.85	105	travail	47.2		
73	chien	chien	dog	.00	100	2.23	0.77	3.80	1.06	2.76	0.74	4.33	0.76	1.19	0.40	121	chat	48.3		
74	poupée	poupée	doll	.94	54	2.00	0.64	3.07	1.01	4.31	0.60	3.83	1.21	1.23	0.65	10.59	enfant	19.1		
75	âne	âne	donkey	.00	100	4.20	0.81	2.07	0.87	3.59	0.78	2.33	0.80	2.08	0.80	22.67	bête	16.8		
76	porte	porte	door	.29	93	3.30	0.88	4.67	0.61	3.17	0.60	3.40	1.16	1.52	0.77	0.8	poignée	20.2		
77	poignée	poignée	doorknob	.89	75	1.87	0.97	4.07	1.20	3.10	0.62	1.93	0.91	4.15	0.83	24.41	porte	45.0		
78	robe	robe	dress	.00	100	1.80	0.66	3.40	1.19	2.07	0.75	4.27	0.98	1.46	0.65	99.29	jupe	16.8		
79	commode	commode	dresser	.15	96	3.30	0.88	4.27	0.83	2.83	0.80	3.07	1.05	2.96	0.87	6.89	armoire	19.1		
80	tambour	tambour	drum	.00	100	3.77	0.68	1.57	0.77	2.79	0.49	2.27	0.83	2.15	0.88	14.76	bruit	22.5		
81	canard	canard	duck	.29	93	3.47	0.68	2.50	0.94	2.97	0.73	2.83	0.91	1.85	0.92	12.97	mare	16.8		
82	aigle	aigle	eagle	.54	86	3.67	1.09	1.50	0.73	4.34	0.55	2.53	0.86	2.73	1.00	11.35	oiseau	21.3		
83	oreille	oreille	ear	.00	100	4.27	0.78	4.93	0.37	2.97	0.68	2.40	1.10	1.35	0.56	141	entendre	20.2		
84	éléphant	éléphant	elephant	.00	100	3.90	0.80	1.40	0.72	4.55	0.57	2.37	0.76	2.04	0.82	7.01	trompe	12.3		
85	enveloppe	enveloppe	envelope	.15	96	4.27	0.87	4.23	0.82	1.00	0.00	2.87	1.11	2.58	0.76	26.24	—	—		
86	oeil	oeil	eye	.00	100	3.93	0.96	4.90	0.40	3.83	0.76	3.77	1.17	1.38	0.57	193	voir	13.5		
87	haie	barrière	fence	.77	75	1.53	1.17	3.00	1.14	2.72	0.96	2.70	1.02	3.31	0.84	20.12	—	—		
88	doigt	doigt	finger	.52	79	4.10	0.84	4.90	0.40	2.52	0.74	2.87	1.14	1.31	0.47	167	main	31.5		

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name Agreement		Image Agreement		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD			
				89	poisson	poisson	fish	.00	100	3.00	0.83	3.33	0.99	3.48	0.63			
90	drapeau	drapeau	flag	.00	100	3.13	0.97	2.17	0.95	1.79	0.68	4.07	1.11	2.58	0.64	21.99	Français	14.6
91	fleur	fleur	flower	.15	96	3.40	1.04	3.93	0.94	2.93	0.84	4.50	0.68	1.40	0.58	164	rose	21.3
92	flûte traversière	flûte traversière	flute	.82	68	4.13	0.78	1.53	0.94	3.83	0.71	2.76	0.87	2.20	0.71	12.67	musique	28.1
93	mouche	mouche	fly	.00	100	3.17	0.75	2.60	0.97	4.62	0.62	2.63	1.03	1.77	0.59	33.73	insecte	12.3
94	pied	pied	foot	.00	100	4.33	0.88	4.80	0.66	2.41	0.50	2.90	1.32	1.31	0.55	333	chaussure	22.5
95	ballon de rugby	idem	rugby ball	.00	100	3.93	0.78	1.93	0.83	2.34	0.67	2.10	0.61	2.96	0.96	–	–	–
96	casque	casque	helmet	.00	100	2.20	1.03	2.80	1.30	1.45	0.57	3.37	1.03	2.69	0.68	11.78	moto	31.5
97	fourchette	fourchette	fork	.00	100	4.00	0.83	4.90	0.31	2.66	0.67	2.80	1.13	1.42	0.58	5.87	couteau	49.5
98	renard	renard	fox	.41	86	3.87	0.94	1.47	0.68	4.10	0.56	2.27	0.58	2.15	0.88	13.27	rusé	19.1
99	cor	cor	french horn	1.05	61	3.13	1.31	1.53	0.78	4.93	0.26	1.93	0.58	4.00	0.98	7.06	chasse	53.9
100	grenouille	grenouille	frog	.67	61	4.17	0.87	1.87	0.90	3.69	0.71	2.67	0.88	1.92	0.80	9.18	verte	36.0
101	poêle	poêle	frying pan	.82	75	2.67	0.71	4.00	1.14	1.93	0.46	2.50	1.04	2.73	1.04	19.18	frire	30.3
102	poubelle	poubelle	garbage can	.00	100	4.07	1.20	4.37	0.61	3.38	0.56	3.03	1.03	1.81	0.63	3.19	ordures	25.8
103	girafe	girafe	giraffe	.00	100	4.47	0.57	1.30	0.65	4.97	0.19	2.17	0.70	2.12	0.81	1.19	cou	60.7
104	verre	verre	glass	.00	100	3.63	1.54	4.97	0.18	1.93	0.46	4.07	1.01	1.23	0.51	98.48	eau	28.1
105	lunettes	lunettes	glasses	.15	96	3.73	0.87	4.03	1.16	2.38	0.68	3.87	1.14	2.00	0.69	0	soleil	34.8
106	gant	gant	glove	.00	100	3.23	0.94	3.97	1.25	2.93	0.65	3.30	1.24	2.00	0.63	22.71	main	19.1
107	chèvre	chèvre	goat	.66	79	4.13	0.90	1.80	0.81	3.48	0.57	2.33	0.80	2.12	0.86	15.23	fromage	36.0
108	gorille	gorille	gorilla	.29	93	3.37	0.85	1.40	0.86	3.28	0.75	2.37	0.72	2.50	0.91	1.44	singe	33.7
109	raisin	raisin	grapes	.29	93	4.20	0.66	3.60	0.97	3.76	0.69	2.73	0.98	2.04	0.87	11.57	vin	32.6
110	sauterelle	sauterelle	grasshopper	1.15	54	3.00	1.11	1.63	0.85	4.97	0.19	2.13	0.86	2.50	0.86	2.93	verte	13.5
111	guitare	guitare	guitar	.15	96	4.57	0.57	2.90	1.03	3.45	0.78	3.10	1.03	2.50	0.71	4.33	musique	32.6
112	revolver	pistolet	gun	.73	68	3.57	0.90	1.53	0.73	3.55	0.57	3.03	1.07	2.81	0.80	21.8	–	–
113	cheveux	cheveux	hair	.68	82	1.90	0.76	4.70	0.65	2.41	0.57	4.10	0.71	1.23	0.43	0	longs	21.3
114	marteau	marteau	hammer	.15	96	2.33	0.71	2.10	1.06	2.90	0.72	2.17	0.53	2.19	0.75	11.69	clou	40.4
115	main	main	hand	.00	100	3.80	0.85	4.97	0.18	2.97	0.68	3.10	1.27	1.12	0.33	892	doigt	32.6
116	cintre	cintre	hanger	.29	93	4.33	0.84	4.10	0.99	1.00	0.00	2.70	0.92	2.88	0.95	3.10	vêtements	27.0
117	harpe	harpe	harp	.15	96	4.27	0.94	1.67	1.06	4.76	0.44	2.13	0.51	3.42	1.06	5.10	musique	32.6
118	chapeau	chapeau	hat	.00	100	2.93	1.01	2.83	1.23	2.38	0.56	4.00	0.98	1.62	0.70	87.21	melon	24.7
119	coeur	coeur	heart	.00	100	3.73	1.70	3.50	1.25	1.00	0.00	3.07	1.01	1.81	0.80	605	amour	28.1
120	hélicoptère	hélicoptère	helicopter	.00	100	3.77	0.68	1.97	0.76	3.48	0.74	2.33	0.66	2.72	1.10	0.08	hélice	22.5
121	cheval	cheval	horse	.00	100	4.07	0.98	2.63	1.07	3.93	0.65	3.27	1.05	1.54	0.71	135	équitation	10.1
122	maison	maison	house	.00	100	2.53	0.78	4.47	1.01	3.24	0.79	4.37	0.89	1.38	0.75	507	famille	14.6
123	fer à repasser	fer à repasser	iron	.00	100	2.57	0.90	3.10	1.27	3.52	0.74	2.43	0.90	2.73	0.92	–	–	–
124	table à repasser	table à repasser	ironing board	.56	75	4.33	0.80	3.03	1.25	1.79	0.62	2.23	0.68	3.16	0.85	–	–	–
125	veste	veste	jacket	.56	75	1.87	0.73	4.23	1.07	3.45	0.74	3.66	0.97	2.69	0.79	20.63	pantalon	10.1
126	kangourou	kangourou	kangaroo	.00	100	4.37	0.81	1.07	0.37	4.07	0.53	2.17	0.65	2.88	1.03	0.63	Australie	30.3
127	bouilloire	bouilloire	kettle	1.01	57	2.27	1.08	3.60	1.28	2.93	0.70	2.33	0.76	3.31	0.62	2.04	eau	34.8
128	clé	clé	key	.00	100	2.13	0.94	4.97	0.18	2.45	0.51	3.55	0.99	1.88	0.71	62.5	serrure	33.7
129	cerf-volant	cerf-volant	kite	.00	100	3.87	0.78	1.80	0.85	2.72	0.65	3.27	1.14	2.58	0.99	1.06	vent	43.8
130	couteau	couteau	knife	.00	100	2.80	0.81	4.97	0.18	1.59	0.63	3.20	1.10	1.65	0.69	31.95	couper	24.7
131	échelle	échelle	ladder	.00	100	3.97	0.91	2.70	1.02	2.59	0.73	2.67	0.92	2.27	0.96	34.16	monter	30.3
132	lampe	lampe	lamp	.00	100	2.73	0.87	4.80	0.41	2.00	0.53	3.73	0.94	2.04	0.72	71.55	lumière	51.7
133	feuille	feuille	leaf	1.09	61	3.27	1.20	3.60	1.00	2.76	0.64	4.03	1.00	1.54	0.65	103	papier	30.3
134	jambe	jambe	leg	.43	89	3.77	0.73	4.80	0.66	2.34	0.67	2.83	1.12	1.40	0.71	114	pied	21.3
135	citron	citron	lemon	.00	100	4.83	0.38	3.63	1.10	1.72	0.70	2.53	0.90	1.88	0.82	5.02	jaune	25.8

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name		Image		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD			
136	léopard	léopard	leopard	1.40	36	3.93	0.87	1.37	0.89	4.72	0.45	2.20	0.48	2.69	0.97	0.93	tâches	19.1
137	chou	—	cabbage	—	—	—	—	—	—	—	—	2.20	0.55	2.48	0.87	10.08	légume	32.6
138	ampoule	ampoule	light bulb	.00	100	4.53	0.86	3.70	0.75	2.93	0.65	2.30	0.84	2.69	0.84	7.31	lumière	59.5
139	interrupteur	interrupteur	light switch	.16	93	2.60	0.81	4.66	0.77	2.72	0.88	2.47	0.86	3.27	0.96	0	lumière	72.0
140	lion	lion	lion	.00	100	3.53	0.94	1.50	0.82	4.17	0.54	2.33	0.71	1.69	0.79	17.91	roi	20.2
141	lèvres	bouche	lips	.56	75	4.03	0.85	4.77	0.57	1.69	0.60	3.43	1.12	1.77	0.71	0	rouge	38.2
142	homard	homard	lobster	.73	79	3.93	0.94	2.03	0.93	4.03	0.50	2.07	0.45	3.36	1.04	1.74	crustacé	15.7
143	cadenas	cadenas	lock	.00	96	4.20	0.61	2.47	1.14	2.14	0.58	2.47	0.86	3.38	0.90	1.40	fermer	21.3
144	moufle	moufle	mitten	.15	96	4.23	0.90	2.77	1.33	2.07	0.59	2.27	0.64	2.60	1.35	0.46	gant	43.8
145	singe	singe	monkey	.43	93	3.03	1.00	1.40	0.72	3.41	0.63	3.37	1.10	1.80	0.82	16.46	grimace	12.3
146	lune	lune	moon	.52	79	3.60	1.19	3.80	0.89	1.03	0.19	3.20	1.16	1.77	0.65	84.49	nuit	18.0
147	moto	moto	motorcycle	.00	100	3.60	0.89	3.00	1.23	5.00	0.00	3.50	0.97	2.23	1.03	1.57	vitesse	23.6
148	montagne	montagne	mountain	.29	93	2.83	1.05	2.67	1.27	2.93	0.70	3.70	1.15	1.88	0.65	101	neige	27.0
149	souris	souris	mouse	.29	93	4.27	0.74	2.27	1.11	3.38	0.68	2.63	1.03	1.62	0.75	10.42	rat	21.3
150	champignon	champignon	mushroom	.00	100	3.67	0.99	2.90	0.88	3.00	0.65	3.57	1.07	2.35	1.06	6.42	vénéneux	30.3
151	clou	clou	nail	.15	96	4.37	0.76	2.70	0.95	1.66	0.55	2.60	1.07	2.31	0.79	18.59	marteau	42.7
152	lime	lime	nail file	.00	100	2.23	1.04	3.00	1.41	2.90	0.72	2.00	0.37	3.19	0.90	1.57	vernis	14.6
153	collier	collier	necklace	.47	82	3.90	1.03	3.33	1.09	1.79	0.94	3.77	1.19	1.86	0.69	13.01	perles	41.6
154	aiguille	aiguille	needle	.80	71	4.90	0.31	2.70	1.12	1.55	0.69	2.53	0.73	2.52	0.71	21.90	fil	38.2
155	nez	nez	nose	.00	100	3.60	0.89	4.90	0.31	1.79	0.56	3.17	1.23	1.12	0.33	107	bouche	10.1
156	écrou	écrou	nut	.69	50	3.90	1.45	1.90	1.03	2.21	0.62	2.00	0.64	3.92	0.95	0.72	vis	43.8
157	oignon	oignon	onion	.33	79	2.80	0.89	2.87	1.07	3.59	0.68	2.23	0.86	2.58	0.70	6.04	ail	16.8
158	orange	orange	orange	.29	93	4.00	0.95	4.03	1.10	1.76	0.69	2.47	1.01	1.62	0.75	11.65	jus	25.8
159	autruche	autruche	ostrich	.15	96	4.20	0.85	1.10	0.31	3.72	0.45	2.07	0.58	2.88	0.93	1.95	oeuf	23.6
160	hibou	hibou	owl	.52	79	4.37	0.67	1.67	0.80	4.10	0.41	2.30	0.65	2.48	0.82	3.23	nuit	42.7
161	pinceau	pinceau	paintbrush	.15	96	4.10	1.12	2.57	1.25	2.52	0.78	3.03	0.85	2.23	0.86	9.14	peinture	63.0
162	pantalon	pantalon	pants	.15	96	3.40	0.86	4.87	0.43	2.28	0.53	3.70	1.09	1.54	0.76	28.46	jupe	18.0
163	pêche	pêche	peach	1.12	50	3.50	1.11	2.87	0.94	2.14	0.79	2.47	0.90	2.12	1.11	12.29	poisson	21.3
164	paon	paon	peacock	.00	100	4.07	0.87	1.37	0.81	4.93	0.26	2.13	0.63	3.08	1.23	4.72	roue	28.1
165	cacahouète	cacahouète	peanut	.00	100	3.87	1.38	2.60	0.89	2.59	0.82	2.20	0.71	2.35	0.85	1.06	apéritif	25.8
166	poire	poire	pear	.00	100	4.40	0.67	3.37	1.03	1.14	0.35	2.50	0.94	1.81	0.63	5.31	pomme	22.5
167	stylo	stylo	pen	1.10	54	3.50	1.04	4.90	0.40	2.79	0.68	3.83	1.09	1.80	0.76	3.40	plume	29.2
168	crayon	crayon	pencil	.00	100	4.23	0.68	4.83	0.38	2.50	0.64	3.83	0.95	1.38	0.57	19.39	papier	29.2
169	pingouin	pingouin	penguin	.15	96	3.27	0.94	1.37	0.93	2.66	0.48	2.17	0.65	2.77	0.95	0.42	banquise	22.5
170	poivron	poivron	pepper	.00	93	3.17	1.12	2.47	1.01	2.62	0.49	2.40	0.81	3.23	1.03	0.51	rouge	42.7
171	piano	piano	piano	.00	100	3.80	1.16	3.10	1.37	4.72	0.59	2.93	0.94	2.00	0.80	39.73	musique	33.7
172	cochon	cochon	pig	.60	71	3.60	1.04	1.83	0.87	3.21	0.77	2.43	0.77	1.76	0.78	17.91	porc	19.1
173	ananas	ananas	pineapple	.00	100	4.77	0.43	2.73	1.11	4.52	0.69	2.28	0.70	2.46	0.76	1.10	fruit	26.9
174	pipe	pipe	pipe	.00	100	3.90	0.80	1.93	0.94	1.93	0.46	2.73	0.94	2.46	0.86	26.58	tabac	34.8
175	pichet	cruche	pitcher	1.34	36	3.43	1.04	3.97	0.93	1.76	0.51	2.43	0.73	3.65	0.89	0.59	—	—
176	pince	pince	pliers	.57	86	3.57	1.04	2.07	1.11	2.24	0.69	2.27	0.83	3.12	0.99	3.48	à linge	38.2
177	prise	prise	plug	.00	96	1.83	0.99	3.60	1.07	2.55	0.51	2.23	0.77	2.92	0.93	47.30	courant	33.7
178	sacoché	sac	pocketbook	1.06	50	2.80	1.16	4.37	1.07	2.86	0.52	3.03	0.96	3.46	0.81	1.57	—	—
179	casserole	casserole	pot	.00	100	3.60	0.86	4.50	0.78	2.14	0.44	3.07	0.83	1.96	0.72	7.35	cuisine	31.5
180	pomme de terre	pomme de terre	potato	.53	75	4.07	0.91	3.97	0.93	1.97	0.94	2.83	0.95	1.84	0.75	—	—	—
181	citrouille	citrouille	pumpkin	.29	93	3.60	0.89	1.90	0.80	2.34	0.67	2.50	0.82	2.77	1.07	0.85	cendrillon	27.0
182	lapin	lapin	rabbit	.00	100	4.07	0.78	2.67	1.09	3.14	0.64	2.90	1.06	1.65	0.80	20.12	oreilles	12.3

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name		Image		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%
				Agreement		M	SD	M	SD	M	SD	M	SD	M	SD			
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD			
183	raton-laveur	raton-laveur	racoon	.91	54	2.63	1.22	1.13	0.43	4.59	0.50	1.97	0.49	3.15	0.92	–	animal	16.8
184	tourne-disque	tourne-disque	record player	.65	82	3.57	0.94	2.07	0.94	3.52	0.83	2.77	0.82	3.04	0.84	0.80	musique	43.8
185	frigoridaire	frigoridaire	refrigerator	1.01	54	3.83	0.87	4.73	0.52	2.31	0.60	2.53	0.82	2.31	0.88	0.34	froid	42.7
186	rhinocéros	rhinocéros	rhinoceros	.00	100	4.17	0.87	1.17	0.46	3.93	0.80	2.10	0.66	2.96	1.15	1.10	corne	42.7
187	bague	bague	ring	.00	100	2.63	0.89	4.00	1.05	2.28	0.75	3.97	1.10	2.32	0.85	11.78	fiançailles	28.1
188	fauteuil à bascule	idem	rocking chair	1.41	36	3.73	1.01	1.87	0.73	3.97	0.42	2.40	0.72	3.12	1.05	–	–	–
189	patin à roulette	idem	roller skate	.15	96	2.47	1.17	1.93	0.87	3.72	0.59	2.20	0.55	2.81	0.98	–	–	–
190	rouleau à pâtisserie	idem	rolling pin	.34	89	4.57	0.64	2.00	0.87	1.38	0.49	2.03	0.56	3.04	1.04	–	–	–
191	coq	coq	rooster	.00	100	4.43	0.68	2.40	1.30	3.76	0.64	2.43	0.97	1.85	0.67	18.42	poule	56.1
192	règle	règle	ruler	.00	100	3.73	0.78	4.53	0.68	2.28	0.75	2.77	0.90	2.42	0.76	90.78	mesure	21.3
193	voilier	voilier	sailboat	.80	57	3.67	0.80	2.87	1.01	3.41	0.87	3.37	1.03	3.12	0.93	3.99	mer	31.5
194	salière	salière	salt shaker	.29	93	4.33	0.92	4.30	0.88	3.07	0.59	2.50	0.82	3.00	0.91	0.85	sel	37.1
195	sandwich	sandwich	sandwich	.00	100	3.03	1.00	3.93	0.91	3.21	0.68	3.53	1.11	2.52	0.87	3.78	pain	20.2
196	scie	scie	saw	.00	100	4.60	0.72	1.97	1.13	2.41	0.68	2.20	0.61	2.68	0.90	4.21	bois	29.2
197	ciseau	ciseau	scissors	.34	89	4.50	0.73	4.07	0.83	2.24	0.69	3.03	1.03	2.00	0.63	7.27	couper	73.0
198	vis	vis	screw	.15	96	3.87	1.04	2.30	1.15	3.55	0.87	2.23	0.68	2.77	0.95	2.68	tournevis	33.7
199	tournevis	tournevis	screwdriver	.00	100	4.37	0.76	2.47	1.33	2.31	0.47	2.30	0.65	2.96	0.92	0.63	vis	31.5
200	hippocampe	hippocampe	sea horse	.00	96	4.00	1.08	1.20	0.55	4.55	0.63	2.37	0.81	3.65	1.16	0.12	mer	31.5
201	phoque	phoque	seal	.89	57	2.67	0.88	1.27	0.64	2.86	0.79	2.13	0.63	2.96	1.11	2.89	banquise	13.5
202	mouton	mouton	sheep	.00	100	2.90	0.80	1.83	0.87	3.59	0.57	2.43	1.04	1.65	0.69	22.37	laine	30.3
203	chemise	chemise	shirt	.00	100	3.80	0.92	4.37	0.85	3.10	0.62	3.70	0.99	2.04	0.66	46.58	homme	11.2
204	chaussure	chaussure	shoe	.00	100	2.90	0.96	4.93	0.25	3.14	0.64	4.14	1.06	1.38	0.57	14.25	pied	19.1
205	jupe	jupe	skirt	.00	100	2.37	0.81	3.23	1.28	1.66	0.55	3.73	0.91	1.65	0.69	22.07	courte	22.5
206	moufette	putois	skunk	.76	71	2.03	1.38	1.07	0.25	4.76	0.64	1.43	0.68	4.62	0.64	0	–	–
207	luge	luge	sled	.26	89	2.83	1.02	1.90	0.84	3.28	0.65	2.57	0.57	2.81	1.23	0.34	neige	74.1
208	escargot	escargot	snail	.00	100	3.77	0.77	2.30	1.06	3.00	0.71	2.67	0.88	1.88	0.82	4.93	lent	24.7
209	serpent	serpent	snake	.00	100	3.33	0.92	1.50	0.82	4.00	0.80	3.17	1.05	2.23	0.91	21.9	à sonnette	30.3
210	bonhomme de neige	idem	snowman	.00	100	3.87	0.68	2.33	1.03	2.76	0.79	3.10	1.03	2.00	0.91	–	–	–
211	chaussette	chaussette	sock	.00	100	3.20	0.85	4.97	0.18	1.79	0.73	3.93	1.17	1.58	0.64	7.91	chaussure	19.1
212	araignée	araignée	spider	.15	96	3.03	0.89	2.20	0.96	3.21	0.82	3.13	1.01	2.15	0.83	10.42	toile	40.4
213	rouet	rouet	spinning wheel	1.14	39	2.47	1.50	1.17	0.46	3.86	0.69	1.70	0.79	4.36	0.91	1.27	–	–
214	bobine de fil	bobine de fil	spool of thread	.29	93	4.00	1.05	2.60	1.16	4.07	0.92	2.17	0.59	3.08	0.98	–	culture	31.5
215	cuillère	cuillère	spoon	.00	100	3.83	0.79	4.93	0.25	2.38	0.68	2.97	1.07	1.35	0.56	0	soupe	22.5
216	écureuil	écureuil	squirrel	.00	100	4.33	0.61	1.83	0.95	3.55	0.63	2.33	0.80	2.42	0.99	4.89	arbre	23.6
217	étoile	étoile	star	.00	100	4.30	1.12	3.77	0.77	1.17	0.47	3.43	1.25	1.69	0.68	92.10	ciel	21.3
218	tabouret	tabouret	stool	.00	100	3.60	0.93	3.80	1.30	2.24	0.69	2.57	0.94	2.20	0.87	7.48	chaise	19.1
219	cuisinière	cuisinière	stove	1.03	61	2.93	0.69	4.37	1.07	4.24	0.79	3.00	1.05	2.88	0.91	8.55	–	–
220	fraise	fraise	strawberry	.00	100	3.03	1.03	3.20	1.03	2.76	0.69	2.70	1.12	1.81	0.85	6.12	des bois	18.0
221	valise	valise	suitcase	.43	89	2.77	0.73	3.90	0.99	3.48	0.57	3.20	0.89	2.23	0.71	25.9	voyage	43.8
222	soleil	soleil	sun	.00	100	3.53	1.14	4.37	0.67	1.14	0.35	3.30	1.37	1.42	0.64	257	chaleur	13.5
223	cygne	cygne	swan	.15	96	3.73	1.11	1.87	0.86	2.86	0.64	2.23	0.68	2.65	0.89	8.21	blanc	25.8
224	pull-over	pull-over	sweater	.29	93	3.30	0.75	4.87	0.35	2.76	0.74	3.97	1.00	2.31	0.97	1.10	chaud	20.2
225	balançoire	balançoire	swing	.00	100	3.57	1.10	2.47	0.90	1.69	0.66	2.90	0.77	1.84	0.85	1.74	enfants	29.2
226	table	table	table	.00	100	3.50	1.17	4.83	0.46	1.45	0.57	3.73	1.11	1.35	0.56	254	chaise	28.1
227	téléphone	téléphone	telephone	.00	100	3.20	1.27	4.93	0.25	3.10	0.56	3.75	0.97	1.77	0.82	37.52	communication	11.2
228	télévision	télévision	television	.15	96	2.97	0.96	4.43	1.01	3.28	0.53	3.37	1.11	2.04	0.77	0.46	émissions	10.1
229	raquette de tennis	idem	tennis racket	.00	100	3.57	0.97	2.90	1.03	3.03	0.73	2.89	0.88	2.50	0.81	–	tennis	88.7

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name		Image		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%
				Agreement		Agreement												
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD			
230	dé à coudre	dé à coudre	thimble	.00	100	2.93	1.60	1.83	0.91	3.14	0.92	2.57	0.88	2.23	0.59	—	couture	34.8
231	pouce	pouce	thumb	.15	96	4.27	0.83	4.77	0.68	2.24	0.64	2.46	1.07	1.23	0.51	19.44	index	28.1
232	cravate	cravate	tie	.00	100	3.80	0.89	3.33	0.92	2.66	0.61	3.07	1.05	2.38	0.75	1.61	costume	18.0
233	tigre	tigre	tiger	.00	100	3.63	0.76	1.30	0.65	4.62	0.68	2.25	0.65	2.31	1.05	5.27	lion	18.0
234	grille-pain	grille-pain	toaster	.15	96	2.83	0.83	3.63	1.19	2.90	0.67	2.50	0.69	2.88	0.99	0.08	petit-déjeuner	20.2
235	orteil	orteil	toe	.80	54	3.83	0.70	4.60	0.67	2.07	0.59	2.25	0.84	2.31	0.97	4.25	—	—
236	tomate	tomate	tomato	.15	96	4.37	0.85	4.27	0.78	1.93	0.65	2.57	0.92	1.65	0.75	3.44	rouge	49.4
237	brosse à dents	brosse à dents	toothbrush	.00	100	3.93	0.74	4.87	0.57	2.38	0.68	2.89	0.92	1.81	0.69	—	dentifrice	56.1
238	toupie	toupie	top	.00	100	2.63	0.89	1.80	0.89	3.07	0.75	2.39	0.92	2.31	0.93	2.51	tourner	43.8
239	feu	feu	traffic light	.00	100	2.67	0.88	4.33	0.92	3.41	0.63	3.32	1.25	1.65	0.75	226	rouge	18.0
240	train	train	train	.67	61	2.87	0.97	3.97	1.07	4.69	0.47	3.43	0.96	1.73	0.92	168	vapeur	12.3
241	arbre	arbre	tree	.15	96	3.37	0.96	4.60	0.67	4.31	0.71	4.50	0.79	1.38	0.57	206	feuilles	23.6
242	camion	camion	truck	.00	100	2.77	1.04	3.23	1.10	2.90	0.67	3.29	1.08	1.62	0.75	21.44	voiture	15.7
243	trompette	trompette	trumpet	.29	93	4.33	0.80	1.90	0.80	3.55	0.87	2.07	0.54	2.35	0.85	11.91	musique	29.2
244	tortue	tortue	turtle	.00	100	4.10	0.66	2.03	1.07	3.28	0.65	2.71	0.98	1.92	0.80	5.57	lent	32.6
245	parapluie	parapluie	umbrella	.47	82	3.23	0.73	3.43	0.86	3.24	0.69	3.07	0.90	1.88	0.77	10.25	pluie	75.3
246	vase	vase	vase	.15	96	2.20	0.89	2.90	1.21	3.62	0.73	3.68	1.09	2.31	0.74	25.95	fleurs	63.0
247	gilet	gilet	vest	.98	64	1.93	1.20	2.43	1.01	2.76	0.64	3.21	0.99	2.50	1.03	11.40	sauvetage	18.0
248	violon	violon	violin	.15	96	4.27	0.69	2.03	0.96	4.28	0.65	2.36	0.78	2.54	1.07	13.86	musique	31.5
249	charrette	chariot	wagon	1.27	43	1.20	0.48	1.33	0.55	3.34	0.77	2.21	0.63	2.88	0.91	11.35	—	—
250	montre	montre	watch	.00	100	3.23	0.73	4.70	0.60	2.93	0.80	3.61	1.10	2.19	0.57	27.73	heure	—
251	arrosoir	arrosoir	watering can	.00	96	4.00	0.79	2.27	1.17	2.72	0.65	2.43	0.84	2.31	0.97	1.40	eau	29.2
252	pastèque	pastèque	watermelon	.47	82	2.70	1.26	2.53	1.04	1.86	0.58	2.14	0.71	2.81	0.90	0.68	eau	20.2
253	puits	puits	well	.00	100	3.40	1.10	1.90	1.03	3.79	0.56	2.50	0.84	2.77	0.99	23.73	eau	52.8
254	roue	roue	wheel	.00	100	3.73	1.48	1.67	0.84	3.34	0.86	3.43	1.03	2.12	0.77	5.02	voiture	23.6
255	sifflet	sifflet	whistle	.00	100	4.70	0.60	2.10	0.92	2.24	0.58	2.39	0.63	2.38	0.80	11.52	bruit	21.3
256	moulin	moulin	windmill	.00	100	3.33	1.09	1.57	0.77	4.79	0.41	2.36	0.73	2.31	0.93	18.16	vent	41.6
257	fenêtre	fenêtre	window	.00	96	1.77	0.63	3.67	1.32	3.48	0.91	3.57	0.88	1.69	0.88	196	porte	15.7
258	verre à pied	verre à pied	wine glass	.98	57	2.67	1.32	4.67	0.61	1.97	0.73	2.75	1.00	3.12	0.91	—	—	—
259	clé à écrous	clé	wrench	1.30	36	2.87	1.22	2.13	1.14	2.17	0.60	2.57	0.96	2.19	1.23	—	—	—
260	zèbre	zèbre	zebra	.00	100	4.27	0.69	1.07	0.37	4.55	0.51	2.04	0.43	2.46	0.95	1.61	rayures	42.7
261	gland	gland	acorn	.41	86	3.37	1.19	1.90	0.96	3.38	0.86	2.11	0.58	3.12	1.03	2.63	—	—
262	bassine	bassine	basin	.99	61	2.93	0.94	3.00	0.98	2.10	0.49	2.32	0.72	2.60	0.82	1.78	—	—
263	banc	banc	bench	.00	100	3.40	0.93	3.63	0.93	2.90	0.62	2.89	0.92	2.15	0.67	47.86	école	13.5
264	jumelles	jumelles	binoculars	.00	100	3.63	0.96	2.07	0.87	4.52	0.74	2.39	0.79	2.80	0.76	0	vue	18.0
265	nid	nid	bird nest	.00	100	3.77	0.68	2.17	1.15	4.90	0.41	2.43	0.74	2.23	0.91	21.52	oiseau	75.3
266	maison à oiseau	idem	bird house	1.39	43	3.17	0.83	1.90	1.06	2.62	0.68	1.96	0.79	3.73	1.00	—	—	—
267	ballon dirigeable	idem	blimp	1.87	18	2.40	1.52	1.27	0.69	3.62	0.62	2.18	0.55	4.15	0.73	—	—	—
268	appareil photo	idem	camera	.00	100	3.83	0.79	3.70	0.92	4.34	0.67	3.26	0.94	2.96	1.04	—	—	—
269	malle	malle	chest	1.0	54	3.03	0.89	2.63	1.10	2.52	0.63	2.89	1.03	3.19	0.80	12.3	voyage	27.0
270	cheminée	cheminée	chimney	.00	100	2.00	1.31	3.13	1.17	3.76	0.79	3.32	1.22	2.31	0.93	41.22	feu	57.3
271	placard	penderie	closet	.96	61	2.57	1.01	3.97	1.19	4.59	0.57	3.32	1.16	2.23	0.76	10.8	—	—
272	passoire	passoire	colander	.73	75	3.57	1.17	3.67	1.21	3.64	0.83	2.23	0.57	3.12	0.78	0.51	—	—
273	planche à découper	idem	cutting board	.86	57	3.33	1.32	3.07	1.14	2.03	0.57	2.97	1.03	2.52	0.82	—	—	—
274	dauphin	dauphin	dolphin	.00	100	4.70	0.53	1.80	0.81	3.10	0.72	2.67	0.92	2.44	0.87	3.70	—	—
275	pelle	pelle	dust pan	.00	100	3.73	1.01	2.10	0.80	2.41	0.68	2.37	0.72	1.76	0.78	6.63	râteau, sable	14.6
276	éventail	éventail	fan	.00	96	3.23	0.82	1.53	1.07	3.10	0.62	2.73	0.83	2.68	0.95	10.8	—	—

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name		Image		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%
				Agreement	%	M	SD	M	SD	M	SD	M	SD	M	SD			
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD			
277	robinet	robinet	faucet	.00	100	3.03	1.00	4.80	0.61	3.93	0.80	2.77	0.94	2.08	0.86	5.87	eau	66.3
278	plume	plume	feather	.00	100	4.20	1.10	2.30	1.21	3.66	1.04	3.43	0.90	2.16	0.85	51.05	—	—
279	fougère	fougère	fern	.68	71	2.97	0.96	1.83	0.99	4.21	0.98	2.47	1.07	3.12	1.09	6.29	—	—
280	grande roue	grande roue	ferris wheel	.62	82	3.13	1.36	1.73	0.64	4.86	0.44	2.13	0.63	3.16	0.94	—	—	—
281	borne incendie	bouche incendie	fire hydrant	1.06	36	2.47	1.38	1.93	1.17	3.79	0.62	1.97	0.49	3.92	0.95	—	—	—
282	hameçon	hameçon	fishhook	.94	64	4.03	1.27	1.63	0.72	1.79	0.62	2.27	0.64	3.54	0.99	1.70	—	—
283	canne à pêche	canne à pêche	fishing rod	.40	89	4.30	0.70	1.77	0.86	3.00	0.93	2.40	0.67	2.80	0.82	—	—	—
284	torche	torche	flashlight	1.31	36	3.47	1.28	2.93	0.94	3.38	0.68	2.63	0.81	3.46	0.71	7.57	—	—
285	mappemonde	mappemonde	globe	.87	68	4.20	1.21	2.13	1.11	3.17	0.85	2.73	1.01	3.96	0.89	0	—	—
286	masque	masque plongée	goggles	1.40	46	1.20	0.41	1.73	1.05	2.76	0.64	3.87	0.97	2.27	0.83	35.73	—	—
287	barbecue	barbecue	grill	.00	100	2.80	0.85	2.63	0.93	3.72	0.65	2.70	0.79	3.23	1.03	0	—	—
288	caddie	caddy	—	.52	79	—	—	—	—	—	—	2.57	0.82	—	—	0	—	—
289	écouteurs	écouteurs	headphones	1.19	39	2.80	1.37	2.43	1.19	4.07	0.80	2.87	1.01	3.64	0.70	0	—	—
290	hippopotame	hippopotame	hippopotamus	.00	96	2.97	0.89	1.23	0.68	4.10	0.49	2.03	0.32	3.65	1.16	1.74	gros	30.3
291	binette	binette	hoe	1.16	29	2.50	1.43	1.53	0.86	2.17	0.76	1.47	0.57	4.20	0.96	0.51	—	—
292	lampe à pétrole	lampe à pétrole	lantern	1.61	32	3.70	1.09	1.73	1.01	3.93	0.53	2.27	0.74	3.69	0.93	—	lumière	51.7
293	tondeuse	tondeuse	lawnmower	.00	100	3.60	1.00	2.33	1.09	4.86	0.35	2.20	0.48	2.88	0.83	0	—	—
294	bûches	bûches	logs	1.42	39	3.24	1.02	2.87	0.97	3.31	0.85	2.30	0.75	3.08	0.93	8.08	feu	33.7
295	maracas	maracas	maracas	.81	43	3.17	1.26	1.47	0.57	3.55	1.02	1.73	0.83	4.08	1.02	0	—	—
296	microscope	microscope	microscope	.00	93	3.97	0.81	1.53	0.68	4.34	0.55	2.33	0.92	3.65	0.75	4.08	—	—
297	filet à papillon	idem	net	.68	57	3.63	1.03	1.63	0.72	3.07	0.92	2.07	0.58	3.23	1.07	—	—	—
298	raquette ping-pong	idem	paddle	.00	100	4.63	0.76	2.30	1.02	1.93	0.65	2.30	0.70	2.96	0.92	—	—	—
299	parachute	parachute	parachute	.70	71	3.00	1.11	1.23	0.50	3.72	0.88	2.57	0.97	3.15	1.01	1.53	tomber	13.5
300	perroquet	perroquet	parrot	1.49	57	3.67	0.84	1.47	0.68	4.90	0.31	2.87	0.90	2.58	0.86	4.46	répéter	18.0
301	tableau	tableau	picture	.34	89	3.47	1.31	4.10	0.99	4.21	0.77	4.07	1.05	2.19	0.75	85.38	—	—
302	flipper	flipper	pinball machine	.00	96	2.90	0.92	1.70	0.75	4.69	0.60	2.80	0.92	3.68	0.90	0	—	—
303	ornithorynque	ornithorynque	platypus	.90	39	2.20	1.54	1.10	0.40	3.17	0.60	1.47	0.57	4.72	0.46	0.38	—	—
304	râteau	râteau	rake	.00	100	3.97	0.72	2.47	1.07	2.17	0.66	2.10	0.40	1.96	1.00	2.8	pelle	39.3
305	fusée	fusée	rocket	.00	100	3.50	0.82	1.67	0.88	4.21	0.62	2.73	0.83	2.46	0.81	9.87	espace	31.5
306	corde	corde	rope	.15	96	3.70	0.84	2.37	0.76	3.34	0.86	2.53	0.86	2.08	0.69	42.75	—	—
307	selle	selle	saddle	.00	100	3.70	1.21	2.10	1.24	4.10	0.62	2.67	1.03	3.00	0.89	7.95	—	—
308	coffre-fort	coffre-fort	safe	.29	93	3.57	1.10	1.77	1.07	3.93	0.65	2.67	0.96	3.23	0.86	2.8	—	—
309	balance	balance	scale	.00	96	3.13	1.43	1.93	1.26	3.28	0.70	2.97	0.85	2.73	0.83	15.06	—	—
310	spatule	pelle	spatula	.22	57	1.40	0.62	1.73	0.94	2.21	0.68	2.43	0.77	3.46	0.76	0.42	—	—
311	douche	douche	showerhead	.78	61	2.33	1.03	4.87	0.43	3.72	0.92	3.23	1.04	2.23	0.76	5.36	—	—
312	seringue	seringue	syringe	.29	93	4.31	0.85	2.20	1.21	3.72	0.59	2.57	0.90	3.50	0.86	3.27	—	—
313	tambourin	tambourin	tambourine	.18	79	3.33	1.52	1.80	0.71	3.00	0.71	2.00	0.45	2.85	1.22	0.93	—	—
314	télescope	télescope	telescope	.69	57	3.77	0.90	1.37	0.61	3.72	0.70	2.37	0.76	3.88	0.73	2.04	—	—
315	thermos	thermos	thermos	.68	61	3.33	1.09	2.03	1.00	3.76	0.87	2.40	0.72	3.54	0.86	1.06	—	—
316	pneu	pneu	tire	.68	57	4.50	0.63	3.87	1.17	3.69	0.66	2.70	0.95	2.76	0.66	4.33	voiture	48.2
317	tracteur	tracteur	tractor	.00	100	2.93	0.94	2.50	1.17	4.41	0.50	2.37	0.72	2.38	0.90	1.36	champs	20.2
318	cabine	oeuf	tram car	1.18	54	1.13	0.43	2.43	1.10	3.45	0.99	2.57	1.10	3.42	0.86	11.23	—	—
319	girouette	girouette	weather vane	.00	79	3.23	1.25	1.97	1.10	4.59	0.57	2.43	1.10	3.54	0.86	1.48	—	—
320	yo-yo	yo-yo	yo-yo	.29	93	4.30	0.75	1.57	0.63	2.48	0.63	2.50	0.82	2.50	0.81	0	—	—
321	fermeture éclair	fermeture éclair	zipper	.33	82	3.50	1.11	4.27	0.91	3.41	0.73	2.53	0.86	2.69	0.79	—	—	—
322	fourmilier	fourmilier	anteater	1.78	21	2.07	1.51	1.03	0.18	3.41	0.73	1.33	0.61	4.62	0.64	0.46	—	—
323	enclume	enclume	anvil	.36	79	2.93	1.26	1.10	0.31	2.59	0.63	1.93	0.45	4.04	0.72	3.44	—	—

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name Agreement		Image Agreement		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD			
				324	arche	arche	arch	1.57	29	2.00	1.17	2.27	1.11	1.69	0.85			
325	tatou	tatou	armadillo	1.02	39	2.10	1.21	1.07	0.37	3.59	0.63	1.57	0.73	4.65	0.56	0	--	--
326	avocat	avocat	avocado	.26	89	3.37	1.16	3.07	1.01	2.14	0.64	2.60	0.86	2.73	1.04	24.67	--	--
327	maillot de bain	maillot de bain	swimsuit	.48	86	3.07	1.11	3.17	1.17	2.03	0.68	3.87	0.97	2.00	0.69	--	--	--
328	chauve-souris	chauve-souris	bat	.00	100	3.83	0.87	1.63	0.89	3.03	0.63	2.30	0.79	2.88	1.03	2.8	--	--
329	cage	cage	bird cage	.00	100	3.13	0.94	1.80	0.89	4.38	0.78	3.50	0.86	2.27	0.78	19.86	--	--
330	poisson-lune	poisson-lune	blowfish	.67	50	1.57	0.94	1.30	0.65	2.90	0.67	1.20	0.48	4.69	0.88	0.02	--	--
331	cerveau	cerveau	brain	.15	96	3.37	1.00	2.80	1.32	3.34	0.90	2.83	1.05	3.12	0.77	50.58	intelligence	19.1
332	buffle	bison	buffalo	.79	71	2.20	1.42	1.07	0.25	3.48	0.69	1.89	0.42	3.46	1.03	2.08	--	--
333	cactus	cactus	cactus	.00	100	3.76	0.83	1.47	1.01	1.90	0.62	3.00	1.02	2.35	0.85	1.65	désert	30.3
334	compas	pince à épiler	calipers	1.09	43	1.10	0.31	1.53	1.07	1.76	0.64	2.33	0.61	3.46	0.71	4.21	maths	15.7
335	boite de conserve	idem	can	.00	100	3.50	0.94	3.90	0.88	3.07	0.65	3.03	1.03	2.69	0.79	--	--	--
336	fromage	gruyère	cheese	.56	75	3.27	0.98	4.03	1.03	2.34	0.72	4.37	0.81	1.72	0.74	13.48	chèvre	18.0
337	blatte	blatte	cockroach	1.53	39	3.27	1.26	1.50	0.68	3.24	0.69	2.50	0.97	4.35	0.63	0.38	--	--
338	boussole	boussole	compass	.41	86	3.90	1.18	2.07	0.94	3.10	0.67	2.27	0.58	3.19	0.75	2.38	--	--
339	crabe	crabe	crab	.00	100	4.13	0.51	2.10	0.96	4.10	0.67	3.07	1.01	2.38	0.94	3.95	pinces	45.0
340	cymbales	cymbales	cymbals	1.12	50	3.73	1.11	1.63	0.96	4.41	0.98	2.20	0.76	3.77	0.95	0	--	--
341	fléchette	fléchette	dart	.00	100	3.87	1.01	1.87	0.86	3.76	0.83	2.27	0.69	2.88	0.93	0.42	--	--
342	dinosaure	dinosaure	dinosaur	.34	89	3.40	1.22	1.14	0.44	3.14	0.69	3.37	1.03	3.00	1.04	0	--	--
343	niche	niche	doghouse	.15	96	4.43	0.77	1.83	1.02	2.17	0.80	2.93	1.07	2.42	0.76	5.7	--	--
344	libellule	libellule	dragonfly	.53	75	3.13	0.97	1.93	0.87	4.41	0.68	2.37	0.72	3.00	0.94	1.7	--	--
345	chevalet	chevalet	easel	.78	54	3.03	0.93	2.13	1.17	3.24	0.74	2.53	0.68	4.15	0.78	2.68	--	--
346	anguille	anguille	eel	1.08	54	2.77	0.94	1.27	0.52	2.21	0.68	2.00	0.64	3.38	0.98	3.14	--	--
347	bocal à poisson	aquarium	fishbowl	.65	64	4.20	0.66	3.30	1.34	3.59	0.87	2.73	0.98	2.77	0.75	--	--	--
348	queue de poisson	idem	fishtail	.26	89	3.37	0.93	2.20	1.30	2.90	0.77	2.70	0.95	2.76	1.13	--	--	--
349	flamand rose	flamand rose	flamingo	.48	86	3.73	0.91	1.23	0.50	2.97	0.73	2.37	0.85	3.31	0.93	--	--	--
350	entonnoir	entonnoir	funnel	.00	93	4.30	0.88	2.07	1.11	1.14	0.35	2.13	0.51	3.56	0.87	2.76	--	--
351	hamburger	hamburger	hamburger	.29	93	4.13	0.94	3.52	0.87	3.55	0.83	3.17	1.12	3.23	1.03	0	--	--
352	hamac	hamac	hammock	.15	96	2.80	0.89	2.03	0.93	3.10	0.62	2.77	0.90	3.40	1.12	2.12	--	--
353	harmonica	harmonica	harmonica	.00	93	3.57	1.04	2.04	0.93	4.24	0.74	2.23	0.68	3.04	0.82	1.48	--	--
354	fer à cheval	fer à cheval	horseshoe	.00	100	3.83	0.87	2.10	1.30	2.07	0.59	2.53	1.07	3.19	0.90	--	--	--
355	hyène	hyène	hyena	.65	82	3.43	1.25	1.10	0.31	3.24	0.58	2.13	0.43	4.04	0.96	1.36	--	--
356	igloo	igloo	igloo	.00	100	4.87	0.35	1.27	0.52	2.10	0.62	2.47	0.73	3.08	1.08	0.08	--	--
357	bocal	bocal	jar	1.02	64	2.83	1.42	2.93	1.17	2.66	0.72	2.97	0.96	2.77	0.65	3.06	--	--
358	méduse	méduse	jellyfish	.30	86	3.47	0.90	1.37	0.56	3.14	0.58	2.70	0.75	2.96	1.10	2.46	--	--
359	koala	koala	koala	.15	96	4.13	0.73	1.37	0.72	3.52	0.74	2.23	0.73	3.31	1.19	0	--	--
360	louche	louche	ladle	.15	96	4.30	0.75	3.43	0.94	2.10	0.49	2.23	0.63	2.96	0.82	0.46	--	--
361	coccinelle	coccinelle	ladybug	.15	96	3.43	0.94	2.27	1.01	3.03	0.78	2.73	0.98	2.23	0.99	1.02	rouge	22.5
362	agneau	agneau	lamb	.66	79	4.03	0.81	1.90	1.03	3.10	0.56	2.30	0.75	2.58	0.95	9.01	--	--
363	rouge à lèvres	rouge à lèvres	lipstick	.15	96	4.27	0.64	3.23	1.50	3.07	0.92	3.07	1.20	2.52	0.96	--	--	--
364	lézard	lézard	lizard	.69	86	3.67	0.71	1.53	0.94	2.76	0.64	2.60	0.93	2.80	1.00	4.97	--	--
365	lama	lama	llama	.00	86	3.70	0.88	1.17	0.46	2.83	0.76	2.20	0.66	3.65	0.98	1.10	--	--
366	poumons	poumons	lungs	.29	93	3.23	0.94	1.93	1.08	2.79	0.73	2.23	0.68	3.23	0.71	0	--	--
367	élan	élan	moose	1.56	32	3.33	0.92	1.17	0.46	3.10	0.72	1.93	0.45	4.15	0.97	68.83	--	--
368	poulpe	poulpe	octopus	1.01	46	3.33	1.21	1.67	0.88	4.00	0.60	2.30	0.84	3.88	0.99	0.59	--	--
369	palmier	palmier	palm tree	.00	100	3.83	0.95	2.10	1.27	3.76	0.69	2.77	1.19	3.19	0.94	9.91	--	--
370	panda	panda	panda	.15	96	4.00	0.95	1.30	0.60	3.00	0.71	2.23	0.68	2.96	1.14	0	--	--

APPENDIX A (Continued)

Item	Intended Name	Modal Name	English	Name Agreement		Image Agreement		Familiarity		Complexity		Variability		Age of Acquisition		F	Verbal Association	%
				H	%	M	SD	M	SD	M	SD	M	SD	M	SD			
				371	petits pois	petits pois	peas	1.11	39	2.70	1.18	2.90	1.12	2.86	0.69			
372	pélican	pélican	pelican	.40	86	3.67	1.03	1.07	0.25	3.17	0.60	2.33	0.76	3.20	1.08	2.55	–	–
373	croissant	croissant	French croissant	.00	100	4.77	0.57	3.77	0.94	2.93	0.70	3.00	1.11	2.04	0.60	25.22	–	–
374	hélice	hélice	propeller	.00	100	2.83	0.99	1.33	0.80	2.52	0.74	2.47	0.90	3.44	0.87	3.57	–	–
375	pyramide	pyramide	pyramid	.00	100	4.50	0.78	1.67	0.88	2.34	0.90	2.87	1.04	3.19	0.98	7.44	–	–
376	rat	rat	rat	.86	75	3.50	0.82	1.73	0.94	2.83	0.66	2.57	1.10	2.35	0.69	22.07	souris	39.3
377	raie	raie	ray	.26	89	3.57	0.97	1.53	0.90	2.76	0.79	2.20	0.66	3.69	0.93	8.59	–	–
378	bouton de fleur	fleur	rosebud	1.55	25	3.07	0.94	3.03	1.27	3.90	0.72	3.30	1.21	3.46	1.03	–	–	–
379	saxophone	saxophone	saxophone	.00	96	4.37	1.07	1.90	1.03	4.45	0.57	2.50	0.94	3.62	0.90	0.72	–	–
380	scorpion	scorpion	scorpion	.40	89	4.07	1.01	1.66	0.94	4.21	0.56	2.13	0.68	3.12	0.95	2.04	–	–
381	requin	requin	shark	.00	100	3.83	0.91	1.87	0.97	2.28	0.75	3.27	0.87	2.85	1.12	3.02	–	–
382	squelette	squelette	skeleton	.00	100	4.77	0.50	1.60	0.81	4.66	0.55	3.00	1.05	3.00	0.85	9.78	–	–
383	crâne	crâne	skull	.55	82	4.10	0.96	1.43	0.68	3.59	0.68	2.97	1.03	3.12	0.77	25.22	os	16.8
384	palette	pelle à tarte	spatula	1.58	18	1.00	0.00	2.07	0.94	2.69	0.71	2.27	0.78	–	–	4.1	–	–
385	toile d'araignée	toile d'araignée	spider web	.00	100	4.33	0.71	2.83	1.09	2.76	0.91	3.00	1.05	2.58	0.81	–	–	–
386	coloquinte	coloquinte	squash	1.35	25	1.63	1.19	1.37	0.76	1.52	0.51	1.60	0.97	4.77	0.51	0.12	–	–
387	étoile de mer	étoile de mer	starfish	.00	100	4.43	0.63	1.70	0.88	3.10	0.82	2.77	0.90	2.48	0.96	–	–	–
388	stéthoscope	stéthoscope	stethoscope	.00	79	3.80	1.00	2.03	0.85	2.59	0.68	1.97	0.81	4.12	1.09	0.42	–	–
389	espadon	espadon	swordfish	1.14	50	3.40	1.35	1.27	0.58	3.10	0.56	1.90	0.71	4.19	0.80	0	–	–
390	thermomètre	thermomètre	thermometer	.15	96	2.63	1.27	3.07	1.23	2.83	0.71	3.13	0.97	2.65	0.80	3.44	–	–
391	totem	totem	totem	.16	93	4.17	1.09	1.20	0.48	4.00	0.60	2.50	1.04	4.46	0.58	0.76	–	–
392	toucan	toucan	toucan	1.32	46	3.23	1.41	1.20	0.48	3.31	0.60	2.10	0.88	4.35	0.85	0	–	–
393	dindon	dindon	turkey	.90	54	3.47	1.11	1.37	0.67	4.45	0.51	2.17	0.70	3.19	1.10	2.04	–	–
394	vautour	vautour	vulture	.70	71	3.73	1.01	1.20	0.55	3.79	0.49	2.43	0.86	3.42	0.86	3.19	–	–
395	morse	morse	walrus	1.11	50	3.93	1.01	1.13	0.35	3.34	0.55	2.03	0.49	3.88	0.99	0.38	–	–
396	machine à laver	machine à laver	washing machine	.15	96	2.87	0.78	3.67	1.18	3.48	0.91	2.60	0.89	2.62	0.90	–	–	–
397	baleine	baleine	whale	.16	89	3.23	0.86	1.27	0.58	2.79	0.56	2.57	0.68	2.38	0.94	2.63	mer	23.6
398	fouet	fouet	whip	.15	96	3.43	1.30	1.30	0.65	3.17	1.00	2.37	0.56	2.92	0.86	15.4	–	–
399	loup	loup	wolf	.00	96	3.53	0.82	1.40	0.77	2.90	0.62	2.63	0.89	2.08	0.93	38.84	garou	31.5
400	ver de terre	ver de terre	worm	.51	82	3.50	0.86	1.47	0.78	2.66	0.67	2.30	0.70	2.19	0.85	–	–	–

(Continued on next page)

APPENDIX B

Shown here are all the concepts for which one or more naming or identification failures occurred, a different object was imaged, or more than one name was given. Failures in the naming task are listed DKN (don't know name), DKO (don't know object), and TOT (tip of the tongue). All nondominant names given for each concept are listed and accompanied by their frequencies (when available).

Item	Intended Name	Modal Name	English	DKN	DKO	TOT	Nondominant Names
2	avion	avion	airplane	0	0	0	Boeing (0)
3	crocodile	crocodile	alligator	0	0	0	alligator (0.5)
5	fourmi	fourmi	ant	0	0	0	araignée (10.4), criquet (0.2), insecte (25.3)
7	bras	bras	arm	0	0	0	avant-bras (-)
9	artichaut	artichaut	artichoke	0	0	1	chou-fleur (-), poireau (1.1)
10	cendrier	cendrier	ashtray	1	0	0	cendar (0)
11	asperge	asperge	asparagus	0	0	1	rhubarbe (0.2)
12	hache	hache	axe	0	0	1	-
13	landau	landau	baby carriage	0	0	0	poussette (0.2), berceau (15.6)
15	ballon	ballon	balloon	0	0	0	ballon gonflable (-), ballon de baudruche (-)
17	grange	grange	barn	0	0	0	ferme (34.7), hangar (8.5), usine (39.7), silo à grain (-)
18	tonneau	tonneau	barrel	0	0	0	baril (1.5), bidon (5.2), barrique (1.9)
22	lit	lit	bed	0	0	0	lit double (-), lit deux personnes (-)
23	abeille	abeille	bee	0	0	0	guêpe (4.2)
24	scarabée	scarabée	beetle	0	0	0	cafard (3.7), blatte (0.3), insecte (25.3), cigale (3.7), (beetle) moustique (5.1), coléoptère (0.6)
25	cloche	cloche	bell	0	0	0	clochette (0)
26	ceinture	ceinture	belt	0	0	0	collier de chien (-)
27	vélo	vélo	bicycle	0	0	0	bicyclette (12.7)
28	oiseau	oiseau	bird	0	0	0	pinson (2.6), moineau (4.2)
29	chemisier	chemise	blouse	0	0	0	chemisier (0.6)
30	livre	livre	book	0	0	0	bouquin (9.2)
31	botte	botte	boot	0	0	0	chaussure (14.2), bottine (7.1)
34	bol	bol	bowl	0	0	0	écuelle (3.7), coupe (25.1)
35	boite	boite	box	0	1	0	brique (17.2)
36	pain	pain de mie	bread	0	0	0	brioche (0.06), pain (86.8), pain en tranches (-), cake (0.63), miche de pain (-)
38	brosse	brosse	brush	0	0	0	balayette (0.04)
39	bus	bus	bus	0	0	0	car (805.7)
43	chameau	chameau	camel	0	0	0	dromadaire (0.5)
45	canon	canon	cannon	0	0	1	fusil (44.6)
46	casquette	casquette	cap	0	0	0	béret (5.0)
47	voiture	voiture	car	0	0	0	Cadillac (0)
50	chenille	chenille	caterpillar	0	0	0	mille-pattes (0)
51	céleri	céleri	celery	4	0	3	fenouil (0.8), queue de radis (-)
52	chaîne	chaîne	chain	1	0	0	bracelet (4.8), chaînon (1.7), collier (13.0)
54	cerise	cerise	cherry	0	0	0	prune (0.5), pomme pourrie (-)
55	poule	poule	chicken	0	0	0	poulet (10.7), coq (18.4)
56	burin	tournevis	chisel	4	2	7	tournevis (0.6), rabot (0.5), spatule (0.4), pinceau (9.1), outil (25.1)

APPENDIX B (Continued)

Item	Intended Name	Modal Name	English	DKN	DKO	TOT	Nondominant Names
57	église	église	church	0	0	0	chapelle (32.6)
59	cigarette	cigarette	cigarette	0	0	0	clope (0)
60	horloge	horloge	clock	0	0	0	réveil (26.5), pendule (15.4)
62	nuage	nuage	cloud	0	0	0	éponge (6.3), mousse (15.4)
63	clown	clown	clown	0	0	0	tête de clown (-)
64	manteau	manteau	coat	0	0	0	imperméable (5.0), veste (20.6)
66	maïs	maïs	corn	0	0	0	épis de maïs (-)
67	canapé	canapé	couch	0	0	0	divan (16.4)
70	tasse	tasse	cup	0	0	0	bol (8.0)
71	cerf	cerf	deer	0	0	0	élan (68.8), biche (5.0)
74	poupée	poupée	doll	0	0	0	fillette (15.0), petite fille (-)
76	porte	porte	door	0	0	0	fenêtre (196.4), porte vitrée (-)
77	poignée	poignée	doorknob	0	0	0	clenche (0.1), serrure (14.2), portemanteau (0)
79	commode	commode	dresser	0	0	0	armoire (26.6)
81	canard	canard	duck	0	0	0	oie (8.8)
82	aigle	aigle	eagle	0	0	0	perroquet (4.4), faucon (2.0), oiseau (112.0)
85	enveloppe	enveloppe	envelope	0	0	0	lettre (383.6)
87	haie	barrière	fence	0	0	0	clôture (6.7), portail (9.6), haie (20.1)
88	doigt	doigt	finger	0	0	0	index (15.5)
91	fleur	fleur	flower	0	0	0	marguerite (1.6)
92	flûte traversière	flûte traversière	flute	2	0	0	flûte (12.6), pipeau (0.5), clarinette (1.1)
98	renard	renard	fox	0	0	0	loup (38.8)
99	cor	cor	french horn	0	0	2	trompette (11.9), clairon (5.1), trombone (0.9), saxophone (0.7)
100	grenouille	grenouille	frog	0	0	0	crapaud (6.4)
101	poêle	poêle	frying pan	0	0	0	sauteuse (0), loupe (3.8), casserole (7.3), cuisine (8.5)
105	lunettes	lunettes	glasses	0	0	0	paire de lunettes (-)
107	chèvre	chèvre	goat	0	0	0	bouc (5.9), brebis (9.4)
108	gorille	gorille	gorilla	0	0	0	singe (16.4), orang-outan (0)
109	raisin	raisin	grapes	0	0	0	grape de raisin (-)
110	sauterelle	sauterelle	grasshopper	0	0	0	criquet (0.2), cigale (3.7), insecte (25.3), moustique (5.1)
111	guitare	guitare	guitar	0	0	0	guitare sèche (-)
112	revolver	pistolet	gun	0	0	0	revolver (0.2), flingue (0.5)
113	cheveux	cheveux	hair	0	0	0	perruque (5.4), chignon (4.5), tête (637), chevelure (17.1)
114	marteau	marteau	hammer	0	0	0	piolet (1.2)
116	cintre	cintre	hanger	0	0	0	portemanteau (0)
117	harpe	harpe	harp	0	0	0	lyre (3.9)
124	table à repasser	table à repasser	ironing board	0	0	0	planche à repasser (-)
125	veste	veste	jacket	0	0	0	chemise (46.6)
127	bouilloire	bouilloire	kettle	0	0	1	théière (1.4), cafetière (2.0), cocotte-minute (0)
133	feuille	feuille	leaf	0	0	0	feuille d'érable, de chêne, d'arbre (-)
134	jambe	jambe	leg	0	0	0	mollet (6.2), pied (332.9), genou (92.2)

APPENDIX B (Continued)

Item	Intended Name	Modal Name	English	DKN	DKO	TOT	Nondominant Names
136	léopard	léopard	leopard	0	0	0	tigre (5.2), guépard (0.8), panthère (2.4), jaguar (0.9)
139	interrupteur	interrupteur	light switch	0	1	0	coffre (10.2)
141	lèvres	bouche	lips	0	0	0	lèvres (0)
142	homard	homard	lobster	0	0	0	écrevisse (2.8), langouste (1.8), crevette (1.5)
143	cadenas	cadenas	lock	0	0	1	–
144	moufle	moufle	mitten	0	0	0	gant (22.7)
145	singe	singe	monkey	0	0	0	macaque (0.4), babouin (1.7)
146	lune	lune	moon	0	0	0	croissant de lune (–)
148	montagne	montagne	mountain	0	0	0	pic (10.8)
149	souris	souris	mouse	0	0	0	rat (22.0)
151	clou	clou	nail	0	0	0	rasoir (4.5)
153	collier	collier	necklace	0	0	0	collier de perles (–)
154	aiguille	aiguille	needle	0	0	0	épingle (13.9), aiguille à coudre (–)
156	écrou	écrou	nut	1	0	2	boulon (1.0)
157	oignon	oignon	onion	2	0	1	ail (4.0), échalote (0.2), grenade (12.6)
158	orange	orange	orange	0	0	0	mandarine (1.1)
159	autruche	autruche	ostrich	0	0	0	flamand rose (–)
160	hibou	hibou	owl	0	0	0	chouette (4.0)
161	pinceau	pinceau	paintbrush	0	0	0	plume (51.0)
162	pantalón	pantalón	pants	0	0	0	futsal (0)
163	pêche	pêche	peach	0	0	0	abricot (1.9), orange (11.6), prune (3.9), amande (4.0)
167	stylo	stylo	pen	0	0	0	stylo bille (–), stylo bic (–), crayon bic (–)
169	pingouin	pingouin	penguin	0	0	0	manchot (0.7)
170	poivron	poivron	pepper	0	0	2	–
172	cochon	cochon	pig	0	0	0	porc (8.2)
175	pichet	cruche	pitcher	0	0	0	carafe (4.0), broc (2.4), broc à eau (–), pot à lait (–)
176	pince	pince	pliers	0	0	0	tenaille (1.1), clé (62.5), pince à couper (–), outil (25.1)
177	prise	prise	plug	0	0	1	–
178	sacoche	sac	pocketbook	0	0	0	sac à main (0), sacoche (1.5), besace (1.8)
180	pomme de terre	pomme de terre	potato	0	1	0	patate (1.9)
181	citrouille	citrouille	pumpkin	0	0	0	potiron (0.4)
183	raton-laveur	raton-laveur	raccoon	3	0	3	renard (13.2), putois (0.8), castor (1.1)
184	tourne-disque	tourne-disque	record player	0	0	0	pick-up (0), platine de disque (–), électrophone (0)
185	frigoridaire	frigoridaire	refrigerator	0	0	0	frigo (0.3), réfrigérateur (0.3)
188	fauteuil à bascule	idem	rocking chair	0	0	0	rocking-chair (0.8), chaise (81.6), rolling-chair (–), chaise à bascule (–)
189	patin à roulette	patin à roulette	roller skate	0	0	0	roller (0)
190	rouleau pâtisserie	idem	rolling pin	0	0	3	–
193	voilier	voilier	sailboat	0	0	0	dériveur (0), bateau à voile (–)
194	salière	salière	salt shaker	0	0	0	sel (20.5), pot de sel (–)
197	ciseaux	ciseaux	scissors	0	0	0	paire de ciseaux (–)
198	vis	vis	screw	0	0	0	clou (18.5)
200	hippocampe	hippocampe	sea horse	1	0	0	–

APPENDIX B (Continued)

Item	Intended Name	Modal Name	English	DKN	DKO	TOT	Nondominant Names
201	phoque	phoque	seal	0	0	3	otarie (0.4), loutre (1.3), lion de mer (-)
206	moufette	putois	skunk	0	0	0	furet (1.9), rat (22), blaireau (3.5), raton-laveur (0)
207	luge	luge	sled	1	0	0	traîneau (2.0)
212	araignée	araignée	spider	0	0	0	mygale (0.2)
213	rouet	rouet	spinning wheel	6	0	4	quenouille (1.8), machine à filet (-), à tisser (-), à coudre (-), fil à coudre (-)
214	bobine de fil	bobine de fil	spool of thread	0	0	0	fil à coudre (-)
219	cuisinière	cuisinière	stove	0	0	0	four (10.1), gazinière (0), table de cuisson (-)
221	valise	valise	suitcase	0	0	0	sacoche (1.5), sac (59.5), serviette (21.9)
223	cygne	cygne	swan	0	0	0	oie (8.8)
224	pull-over	pull-over	sweater	0	0	0	sweat-shirt (-)
228	télévision	télévision	television	0	0	0	téléviseur (0)
231	pouce	pouce	thumb	0	0	0	doigt (166.5)
234	grille-pain	grille-pain	toaster	0	0	0	toaster (0)
235	orteil	orteil	toe	0	0	0	pied (332.9), doigt de pied (-)
236	tomate	tomate	tomato	0	0	0	pêche (12.2)
240	train	train	train	0	0	0	locomotive (7.9)
241	arbre	arbre	tree	0	0	0	chêne (28.0)
243	trompette	trompette	trumpet	0	0	0	trombone (??)
245	parapluie	parapluie	umbrella	0	0	0	ombrelle (5.7)
246	vase	vase	vase	0	0	0	vase Chinois (-)
247	gilet	gilet	vest	0	0	2	veste (20.6), veston (19.3), costard (0), spencer (0)
248	violon	violon	violin	0	0	0	violoncelle (2.0)
249	charrette	chariot	wagon	4	1	3	brouette (3.9), charrette (11.3), jouet (12.2), jeu d'enfant (-)
251	arrosoir	arrosoir	watering can	0	0	1	-
252	pastèque	pastèque	watermelon	0	0	1	part de pastèque (-)
257	fenêtre	fenêtre	window	1	0	0	-
258	verre à pied	verre à pied	wine glass	0	0	0	verre (98.4), verre à vin (-), flûte (12.6)
259	clé à écrous	clé	wrench	2	0	1	clé (62.5), clé à molette (-), clé de dix, clé de douze, anglaise (-)
261	gland	gland	acorn	0	0	1	noisette (3.0)
262	bassine	bassine	basin	0	0	2	cuvette (6.3), baquet (3.2), boîte (53.0), bac à peinture (-)
266	cabane à oiseau	maison à oiseau	bird house	1	0	2	perchoir (1.8), mangeoire (1.1), cage à oiseaux (-), cabane à oiseaux (-)
267	ballon dirigeable	ballon dirigeable	blimp	2	2	5	dirigeable (0.6), montgolfière (0), obus (26.9), torpille (2), cornichon (1.0), sous-marin (9.7), Zeppelin (0)
269	malle	malle	chest	0	0	0	coffre (10.2), caisse (28.8), valise (25.9)
271	placard	penderie	closet	0	0	0	dressing (0), vestiaire (5.1), placard (10.8)
272	passoire	passoire	colander	0	0	1	écumoire (0.4), égouttoir (0), panier à salade (-)
273	planche à découper	idem	cutting board	1	0	3	-
276	éventail	éventail	fan	0	0	1	-
279	fougère	fougère	fern	0	3	0	plante (43.3), arbuste (6.8), encrier (3.5)
280	grande roue	grande roue	ferris wheel	0	0	0	roue (5.0), manège (10.0), roue de fête foraine (-)
281	borne incendie	bouche incendie	fire hydrant	6	1	4	borne incendie (-), borne anti-feu (-), pompe à incendie (-)
282	hameçon	hameçon	fishhook	0	0	1	ancre (6.12), harpon (0.6), crochet (9.0)

APPENDIX B (Continued)

Item	Intended Name	Modal Name	English	DKN	DKO	TOT	Nondominant Names
283	canne à pêche	canne à pêche	fishing rod	0	0	0	ligne (207), pêche à la ligne (-)
284	torche	torche	flashlight	0	0	0	lampe torche (-), lampe de poche (-)
285	mappemonde	mappemonde	globe	0	0	2	globe (15.4), planisphère (0.2), globe-terrestre (0)
286	masque	masque plongée	goggles	0	0	0	lunettes d'avion (-), de plongée (-), de chimie (-), masque à souder (-)
288	caddie	caddie	caddie	0	0	0	chariot (5.1)
289	écouteurs	écouteurs	headphones	0	0	0	casque (11.7), casque audio (-), casque de walkman (-)
290	hippopotame	hippopotame	hippopotamus	1	0	0	-
291	binette	binette	hoe	5	3	2	bêche (3.8), bêcheuse (0), pioche (5.0), outil (25.1)
292	lampe à pétrole	lampe à pétrole	lantern	0	0	1	lampe à gaz (-), à huile (-), à essence (-), de camping (-), lampe tempête (-), lanterne (22.1), torche (7.5)
294	bûches	bûches	logs	0	0	0	bois (215.1), fagots (0), tas de bois (-), rondins de bois (-)
295	maracas	maracas	maracas	6	0	6	castagnettes (0), cymbales (0), quilles (0)
296	microscope	microscope	microscope	0	0	2	-
297	filet à papillon	filet à papillon	net	0	0	0	épuisette (0.2)
299	parachute	parachute	parachute	0	0	0	montgolfière (0), colis de l'ONU (-)
300	perroquet	perroquet	parrot	0	0	0	chouette (4), perruche (1.1), cacatoès (0.6), buse (0.8), hibou (3.2), corbeau (7.1), oiseau (112)
301	tableau	tableau	picture	0	0	0	cadre (44.5)
302	flipper	flipper	pinball machine	1	0	0	-
303	ornithorynque	ornithorynque	platypus	13	0	0	marsouin (0.3), loutre 1.3, lamantin (0), éléphant de mer (-)
306	corde	corde	rope	0	0	0	cordon (8.1)
308	coffre-fort	coffre-fort	safe	0	0	0	réfrigérateur (0.3)
309	balance	balance	scale	0	0	1	-
310	spatule	pelle	spatula	0	11	0	pelle (6.6), pilon (1.8)
311	douche	douche	showerhead	0	0	0	jet de douche (-), pommeau de douche (-)
312	seringue	seringue	syringe	0	0	0	piqûre (10.8)
313	tambourin	tambourin	tambourine	3	0	2	cymbales (0)
314	télescope	télescope	telescope	0	0	7	lunette (24.5), longue vue (-)
315	thermos	thermos	thermos	0	6	0	shaker (0), tam tam (-)
316	pneu	pneu	tire	0	0	0	roue (5.0)
318	cabine	oeuf	tram car	0	0	0	cabine (11.2), télécabine (0), téléphérique (0), remontée mécanique (-)
319	girouette	girouette	weather vane	1	0	5	-
320	yo-yo	yo-yo	yoyo	0	0	0	pendule (15.4), pendentif (0.4)
321	fermeture éclair	fermeture éclair	zipper	0	3	0	braguette (1.1), ouvre-boîtes (0)
322	fourmilier	fourmilier	anteater	4	0	3	tapir (2.7), tamanoir (0.2), tatou (0), animal (131.7), ornithorynque (0.3), marsupilami (0)
323	enclume	enclume	anvil	1	1	3	étau (2.1)
324	arche	arche	arch	2	0	1	porche (10.8), arcade (7.7), portail (9.6), dalles (0), pont (68), voûte (22.5)
325	tatou	tatou	armadillo	6	3	3	fourmilier (0.4), taupe (3.6), ornithorynque (0.3), bête (173.7)
326	avocat	avocat	avocado	0	0	1	pêche (12.2), demi-avocat (-)
327	maillot de bain	maillot de bain	swimsuit	0	0	0	body (0), justaucorps (0)
330	poisson-lune	poisson-lune	blowfish	0	5	0	poisson (36.4)

APPENDIX B (Continued)

Item	Intended Name	Modal Name	English	DKN	DKO	TOT	Nondominant Names
331	cerveau	cerveau	brain	0	0	0	encéphale (0.2)
332	buffle	bison	buffalo	0	0	0	buffle (2.0), mammoth (0.7), zébulon (0)
334	compas	pince à épiler	calipers	4	7	0	manille (1.9), compas (4.2), sangle (1.3), crochet (9.0)
336	fromage	gruyère	cheese	0	0	0	fromage (13.4)
337	blatte	blatte	cockroach	1	0	0	cafard (3.7), punaise (3.2), scarabée (1.7), crevette (1.5), puceron (0.5), grillon (3.0)
338	boussole	boussole	compass	0	0	0	chronomètre (1.3)
340	cymbales	cymbales	cymbals	0	4	1	disque (13.5), poids (73.1), altères (0)
342	dinosaure	dinosaure	dinosaur	0	0	0	T-rex (-)
343	niche	niche	doghouse	0	0	0	cabane (8.9)
344	libellule	libellule	dragonfly	0	1	0	papillon (16.0), moustique (5.1)
345	chevalet	chevalet	easel	2	0	1	tableau (85.3), pupitre (5.1), tréteau (2.2)
346	anguille	anguille	eel	0	0	1	murène (0.5), couleuvre (2.9), congre (0.4), invertébré (0.5)
347	bocal à poisson	aquarium	fishbowl	0	0	0	bocal à poisson (-)
348	queue de poisson	idem	fishtail	0	1	0	nageoire de poisson (-)
349	flamand rose	flamand rose	flamingo	0	0	0	cygne (8.2), héron (0.8)
350	entonnoir	entonnoir	funnel	0	0	2	-
351	hamburger	hamburger	hamburger	0	0	0	cheeseburger (0)
352	hamac	hamac	hammock	0	0	0	panier (22.5)
353	harmonica	harmonica	harmonica	0	1	1	-
355	hyène	hyène	hyena	0	0	0	chacal (1.6), loup (38.8), iguane (0.1)
357	bocal	bocal	jar	0	0	0	pot (21.9), flacon (10.9), pot à conserve (-), boîte de conserve (-)
358	méduse	méduse	jellyfish	2	0	0	algue (4.6), bigorneau (0.7)
359	koala	koala	koala	0	0	0	panda (0)
360	louche	louche	ladle	0	0	0	cuillère (0)
361	coccinelle	coccinelle	ladybug	0	0	0	scarabée (1.7)
362	agneau	agneau	lamb	0	0	0	mouton (22.3), brebis (9.4)
363	rouge à lèvres	rouge à lèvres	lipstick	0	0	0	tube de rouge à lèvres (-)
364	lézard	lézard	lizard	0	0	0	iguane (0.1), salamandre (1.1)
365	lama	lama	llama	1	0	3	-
366	poumons	poumons	lungs	0	0	0	bronches (0), appareil respiratoire (-)
367	élan	élan	moose	1	0	3	cerf (3.8), daim (1.6), renne (0.8), chevreuil (1.7), caribou (0.1), wapiti (0)
368	poulpe	poulpe	octopus	0	0	0	pieuvre (1.5), méduse (2.4), sèche (0)
370	panda	panda	panda	0	0	0	ours (10.1)
371	petits pois	petits pois	peas	0	1	0	haricots (0), cosse de haricots (-), cosse de petits pois (-)
372	pélican	pélican	pelican	1	0	0	goéland (0.8), cigogne (1.0)
376	rat	rat	rat	0	0	0	souris (10.4), hamster (0), mulot (0.5), musaraigne (0.8)
377	raie	raie	ray	0	0	1	carpe (2.6)
378	bouton de fleur	fleur	rosebud	4	0	0	bourgeon (5), rose (123), fleur (164), bouton de rose (-)
379	saxophone	saxophone	saxophone	0	0	1	-
380	scorpion	scorpion	scorpion	0	0	0	langouste (1.8), écrevisse (2.8)
383	crâne	crâne	skull	0	0	0	squelette (9.7), tête de mort (-)

APPENDIX B (Continued)

Item	Intended Name	Modal Name	English	DKN	DKO	TOT	Nondominant Names
384	spatule	pelle à tarte	spatula	6	2	1	truelle (0.7), pelle (6.6), scalpel (1.0), glace (59)
386	coloquinte	coloquinte	squash	2	8	0	figue (2.6), courge (0.7), coing (0.6), légume (11.6)
388	stéthoscope	stéthoscope	stethoscope	2	0	4	—
389	espadon	espadon	swordfish	1	0	0	thon (0.8), poisson scie (—), poisson (—), poisson chat (—), requin marteau (—)
390	thermomètre	thermomètre	thermometer	0	0	0	baromètre (2.7)
391	totem	totem	totem pole	0	0	1	emblème (3.4)
392	toucan	toucan	toucan	3	0	1	perroquet (4.4), pélican (2.5), cacatoès (0.6), mainate (0), ara (0)
393	dindon	dindon	turkey	3	0	2	dinde (1.82), paon (4.7), glouglou (—)
394	vautour	vautour	vulture	1	1	1	aigle (11.3), rapace (2.6)
395	morse	morse	walrus	1	0	1	phoque (2.8), otarie (0.4), éléphant de mer (—)
396	machine à laver	machine à laver	washing machine	0	0	0	lave-linge (0)
397	baleine	baleine	whale	0	1	1	dauphin (3.7)
398	fouet	fouet	whip	0	0	0	cravache (1.9)
399	loup	loup	wolf	0	1	0	—
400	ver de terre	ver de terre	worm	0	0	1	lombric (0.1), asticot (1.4)

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