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Naming times and standardized norms for the Italian PD/DPSS set of 266 pictures: Direct comparisons with American, English, French, and Spanish published databases

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The present study provides Italian normative measures for 266 line drawings belonging to the new set of pictures developed by Lotto, Dell'Acqua, and Job (in press). The pictures have been standardized on the following measures: number of letters, number of syllables, name frequency, within-category typicality, familiarity, age of acquisition, name agreement, and naming time. In addition to providing the measures, the present study focuses on indirect and direct comparisons (i.e., correlations) of the present norms with databases provided by comparable studies in Italian (in which normative data were collected with Snodgrass & Vanderwart's set of pictures; Nisi, Longoni, & Snodgrass, 2000), in British English (Barry, Morrison, & Ellis, 1997), in American English (Snodgrass & Vanderwart, 1980; Snodgrass & Yuditsky, 1996), in French (Alario & Ferrand, 1999), and in Spanish (Sanfeliu & Fernandez, 1996).

It is unquestionable that the standardization of pictorial stimuli, such as that carried out in their seminal work by Snodgrass and Vanderwart (1980), had a positive effect on studies of object processing. Such stimuli have been used for research purposes in several fields of experimental psychology, with the obvious benefit of being readily available for selection according to the number of object characteristics that were obtained following their validation for an American sample. This standardized set of pictorial stimuli has been used in experiments with adults that focused on the difference in speed between reading words and naming pictures (e.g., Lotto, Rumiati, & Job, 1996; Snodgrass & McCullough, 1986; Vanderwart, 1984) and in perceptual identification and recognition experiments (e.g., Snodgrass, 1984; Snodgrass & Corwin, 1988; Snodgrass & Poster, 1992). In priming experiments, these stimuli have also been modified in order to study the effect of the prior exposure of fragmented pictures (e.g., Feenan & Snodgrass, 1990; Snodgrass & Feenan, 1992) or fragmented words (Snodgrass & Poster, 1992) on processing of subsequent stimuli. Furthermore, in order to adapt the material to populations of different ages, the same set of stimuli has been standardized for 5- to 6-year-old American children (Berman, Friedman, Hamberger, & Snodgrass, 1989), and for 8- to 10-year-old American children (Cycowicz, Friedman, Rothstein, & Snodgrass, 1997).

The widespread need for standardized pictorial material has recently motivated a series of studies in which normative data have been collected in different linguistic contexts, using Snodgrass and Vanderwart's (1980) set of pictures. This has been the case for British English (Barry, Morrison, & Ellis, 1997), French (Alario & Ferrand, 1999), Spanish (Sanfeliu & Fernandez, 1996), Dutch (Martein, 1995), and Italian (Nisi, Longoni, & Snodgrass, 2000). More or less generally across these studies, the rated object dimensions concerned the familiarity of the concepts represented by the pictures, the codability of the stimuli, such as the agreement on the names or on the images elicited by the pictures, the complexity of the visual structure of the pictures, and the age at which the concepts represented by the pictures were first processed and/or coded into memory. In two previous studies, measures of the time it took to name the pictures were also obtained (Barry et al., 1997; Snodgrass & Yuditsky, 1996).

The scope of the present work is twofold. First, this work provides norms for a set of 266 pictures standardized for an Italian sample. We deviate from the commonly adopted procedure of using Snodgrass and Vanderwart's (1980) pictures. Instead, we presented, to a sample of Italian subjects ($N = 178$), a new set of pictures (Lotto, Dell'Acqua, & Job, in press) that were extracted from sources other than previously published databases (i.e., adapted from dictionaries and books). These pictures are available in PCX bitmapped format (downloadable both as a zipped archive and as single items; http://olpss.psy.unipol.it/psychdata.htm). Furthermore, in order to invite

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researchers operating in different linguistic communities to use the present set of pictures, we provide both indirect and direct comparisons between the present normative data and those from previous studies that have used Snodgrass and Vanderwart's set of pictures for standardization purposes. In doing this, we propose a method by which to estimate the relative influence of cultural factors (e.g., linguistic factors and/or those modulated by the different cultural contexts) and visual factors (i.e., factors modulated by the visual dissimilarity among our and Snodgrass & Vanderwart's pictures) on the distribution of the values reported across the studies that we examine.

METHOD

Subjects

A total of 178 students at the University of Padova volunteered to participate in this study. The age of the subjects ranged from 20 to 30 years. All the subjects had normal or corrected-to-normal vision. All the subjects in the naming experiment had normal hearing.

Material

A set of 266 black line drawings of real objects was generated for the present study. Some of the line drawings were created anew, and some were adapted from illustrations in dictionaries and books. The objects belonged to 13 distinct semantic categories (i.e., birds, buildings, clothes, flowers, furniture, fruits, housewares, mammals, musical instruments, receptacles, vegetables, vehicles, and weapons). An additional ad hoc category (i.e., mixed) was created by including objects belonging to different semantic categories for which only a few exemplars were available. The number of objects in each category varied from 11 to 32. A file format version of each picture was obtained by importing picture hard copies on a computer via scanner. When displayed on the monitor of the computer (background luminance, 28 cd/m^2) in the naming experiment, each picture (about 25 cd/m^2) could be inscribed in a square with a side of less than 5º of visual angle, at a viewing distance of about 60 cm. For the rating procedure, the set of 266 picture hard copies was divided into two sublists, with the constraint that all the elements of a given semantic category were grouped in one sublist. This constraint did not apply to the pictures in the mixed category. For each sublist, a booklet was created in which each picture was reported in the center of a separate sheet, together with the name of the picture semantic category (above) and an *n*-point scale (see below), with *n* depending on the rated dimension. For the pictures included in the mixed category, the semantic categories reported above the pictures were work tools (for sickle, scissors, hammer, brush, rake, palette, pincers, and drill), personal effects (for umbrella, pipe, and razor), habitations (for teepee), sweets (for candy), excursion tools (for hammock, binoculars, compass, map, and backpack), house objects (for antenna, candle, globe, radio, faucet, and clock), measurement tools (for hourglass and scale), sport articles (for helmet), toys (for skittle), jewels (for earrings), natural objects (for leaf), space objects (for planet), and plants (for cactus, palm tree, and ivy).

Rating Procedure

Within-category typicality. Thirty subjects took part in the present rating task, 15 for each type of sublist. Each subject was instructed to judge, with no pressure as to speed, how typical each picture was within the corresponding category by marking a value on the scale (1 = *not typical*; 7 = *highly typical*).

Familiarity. Thirty subjects took part in the present rating task, 15 for each type of sublist. None participated in the typicality-rating task. Each subject was instructed to judge, with no pressure as to speed, how familiar the object depicted in each picture was, based on his/her own personal experience (1 = *not familiar*; 7 = *highly familiar*).

Age of acquisition. For the present rating task, each picture in the booklets was replaced with the corresponding name.[1] Thirty subjects took part in the present rating task, 15 for each type of sublist. None participated in the typicality- and familiarity-rating tasks. Each subject was instructed to indicate, with no pressure as to speed, how old he/she was when he/she first encountered or received information about each word, using the 9-point scale reported below the picture (1 = *2 years or younger*, 2 = *3 years*, 3 = *4 years*, 4 = *5 years*, 5 = *6 years*, 6 = *7/8 years*, 7 = *9/10 years*, 8 = *11/12 years*, *and* 9 = *13 years or older*).

Speeded Naming Procedure

Two different experimental sessions were required for the naming data collection. A list of 220 objects was presented in the first session. A list of 168 objects was presented in the second session.[2] In each session, 44 subjects took part in the naming task. The experiment was carried out in a soundproof room, with the constant presence of a research assistant for response-scoring purposes. The pictures were displayed on the monitor of the computer (resolution, 640 × 480; cathode ray tube), and the vocal responses were recorded through a cardiod microphone. The monitor and microphone settings were controlled by a 166-MHz CPU and MEL software.

Each session consisted of three phases, each preceded by the presentation of written instructions on the monitor of the computer. The first phase was devoted to adjustment of microphone settings. Each subject was instructed to read, as fast and accurately as possible, a list of 10 words referring to abstract concepts, presented 1 at a time at the center of the monitor. An interval of 3 sec elapsed between the presentation of 2 successive words. This phase was repeated if a single failure in detecting the subject's vocal response occurred. At each repetition, the sensitivity threshold of the microphone was lowered. The second phase was devoted to practice for the actual naming experiment. On each of eight trials, a fixation point was presented in the center of the monitor, which disappeared when the research assistant pressed a start button (the space bar on the keyboard of the computer). After pressing the space bar, an interval of 400 msec elapsed before the presentation of a warning signal (a 1000-Hz pure tone) for 100 msec. At tone offset, an interval of 700 msec elapsed before the presentation of a picture in the center of the monitor. The subjects were instructed to name each picture as fast and accurately as possible, trying to avoid the production of undesired noise (cough, hesitations, etc.). Each picture remained in view until a vocal response was detected. An interval of 2 sec elapsed between response detection and the beginning of the next trial. The third phase was dedicated to data collection. Before the beginning of the third phase, the instructions stressed the importance of speed and accuracy during the whole experiment. Some rest during the experiment was allowed upon request of the subject. The order of picture presentation was fully randomized across subjects.

During the experiment, each response was scored by the research assistant, using the following scoring rule. A response could be *correct* (i.e., the name produced by the subject corresponded to the name assigned a priori to each picture), *alternative* (i.e., the name produced by the subject did not correspond to the assigned name), or *invalid*, reflecting microphone triggering by vocalizations that were not name productions.

RESULTS

Trimming of the Naming Time Distribution

The data from 2 subjects in each naming session were discarded because of software malfunctioning or because

the rate of invalid responses exceeded the rate of both correct and alternative responses. Valid naming data were thus collected from 84 subjects. The analyses of the naming times (RTs) concentrated on correct responses. RTs were first screened for outliers, using a modification of the procedure proposed by Van Selst and Jolicœur (1994). The RTs for each picture were sorted, and the most extreme observation was temporarily excluded from consideration. The mean and standard deviation of the remaining values were then computed. Cutoff values were established, using the following equations:

$$V_{\text{low}} = X - C_n * SD$$

and

$$V_{\text{high}} = X + C_n * SD.$$

The smallest and largest observations were then checked against the cutoff values, V_{low} and V_{high}. If one or both fell outside the bounds, these observations were excluded from further consideration and were defined as outliers. This algorithm was then applied anew to the remaining data. The value of C depended on the sample size, n, so that the estimated final mean was not influenced by sample size. For samples of 100 or larger, C is 3.5, and the value of C is increased nonlinearly as sample size decreases, to a maximum of 8.0 for a sample size of 4. Note that, with this algorithm, outliers were calculated on the basis of the RT distribution for a given picture, not that for a given subject. This had the important implication of avoiding the elimination of RTs to difficult-to-name pictures, which obviously tended to fall into the slowest portion of the subject's RT distribution (see Snodgrass & Yuditsky, 1996, for a discussion of this problem). The application of the outlier elimination procedure resulted in a total loss of 3.8% of the available RT data.

Normative Data Description

An Excel-formatted version of the normative data is available on line (http://olpss.psy.unipol.it/psychdata.htm). The complete list of the normative data is reported in Appendix A. The first 2 columns of the list in Appendix A present the pictures' names (correct and alternative), in both Italian and English. Each alternative name (in lowercase, preceded by a right-pointing arrow) is associated with the percentage of subjects (in parentheses) who produced the alternative response. Each picture is associated with the following indexes. In the 3rd column (labeled CAT), a three-letter abbreviation of the semantic category of each picture is reported (i.e., BIR, birds; FRU, fruits; VEH, vehicles; VEG, vegetables; MIX, mixed; WEA, weapons; BUI, building; FOR, furniture; INS, musical instruments; MAM, mammals; FLO, flowers; CLO, clothes; REC, receptacles; HOU, housewares). Number of letters and number of syllables of the pictures' names are reported in the 4th and 5th columns (labeled LET and SYL), respectively. Frequency values (log-transform of 1 + number of occurrences over one million) of the printed pictures' names are reported in the 6th column (labeled FRQ). The source of the frequency values was Stella and Job's (in press) database. In the 7th column (labeled S), the number of the session in which the picture RTs have been collected is reported (1, first session; 2, second session). Mean familiarity values are reported in the 8th column (labeled FAM), together with the relative standard deviations in the 9th column (labeled *SD*). Mean typicality values are reported in the 10th column (labeled TYP), together with the relative standard deviations in the 11th column (*SD*). Mean age of acquisition values are reported in the 12th column (labeled AoA), together with the relative standard deviations in the 13th column (*SD*). Mean naming times are reported in the 14th column (labeled RT). Name agreement and concept agreement values are reported in the 15th (labeled NA) and 16th (labeled CA) columns, respectively. NA and CA values are reported in the form of the percentages of subjects who produced the correct name (for NA) or the correct name plus synonyms (CA). Synonyms of the correct name (i.e., those whose NA value contributed to the computation of the CA value) are marked with an asterisk. When an NA value associated with a correct name is not the modal value (i.e., the correct name is not the most frequently produced name), all of the more frequent alternative names are marked with the symbol @. *H* values (computed by using the equation described by Snodgrass & Yuditsky, 1996) are reported in the 17th column (labeled *H*). A *strict* criterion (Snodgrass & Vanderwart, 1980) was adopted to compute the *H* statistic for each item, so that all names that were not identical to the correct name were considered in the computation.

Stepwise Multiple Regression

The matrix of partial correlation among the measures for the Italian sample is reported in Table 1A, and the results of the multiple regression analysis are reported in Table 1B. The overall equation for the multiple regression was significant [$R = .71$; $F(10,255) = 25.82$, $p < .0001$]. As can be seen from the results of the multiple regression analysis, the measures of CA and TYP and the *H* statistic resulted in reliable predictors of the RT distribution. AoA figured as a significant predictor of the picture RTs in a separate regression in which CA values were temporarily excluded from consideration. This separate analysis was motivated by the possible masking effect on the potential reliability of AoA in accounting for the RT distribution, owing to the strong negative correlation between AoA and CA values, as is evidenced in the partial correlation matrix (see Edwards, 1979).

Comparisons With Previous Studies

Indirect comparisons with previous naming time studies. Although several studies in this field have reported standardized norms for different languages (see the forthcoming section), picture RTs have been collected in only two normative studies in which large samples of pictures ($N > 200$) were employed. In this section, we focus on an indirect comparison between the multiple

Table 1A
Matrix of Partial Correlations Among the Italian Measures

Measures	RT	LET	SYL	FRQ	FAM	TYP	AoA	NA	CA
LET	n.s.								
SYL	.164	.852							
FRQ	−.406	−.345	−.313						
FAM	−.249	n.s.	n.s.	.236					
TYP	−.231	−.121	n.s.	.343	.457				
AoA	.472	n.s.	.181	−.519	−.502	−.321			
NA	−.634	−.165	−.236	.422	.220	.134	−.492		
CA	−.671	n.s.	−.182	.426	.238	n.s.	−.540	.933	
H	.538	n.s.	.172	−.279	−.148	n.s.	.323	−.798	−.714

Note—RT, naming time; LET, number of letters; SYL, number of syllables; FRQ, frequency; FAM, familiarity; TYP, typicality; AoA, age of acquisition; NA, name agreement; CA, concept agreement; n.s., nonsignificant.

regression results obtained in the present study and the results reported by Snodgrass and Yuditsky (1996, Experiment 1) and Barry et al. (1997). It is perhaps worth noting that RTs in these different studies have been trimmed according to different criteria for the elimination of outliers. Whereas Snodgrass and Yuditsky applied a criterion that is formally similar to the criterion adopted in the present study, Barry et al. used a reciprocal transformation of each picture's mean RT, following the elimination of RTs that were either shorter than 200 msec or longer than 3,000 msec. Although it is generally accepted that 3,000 msec is a reasonable constraint to adopt for the exclusion of what the authors treated as "major instances of word-finding difficulties," as was concluded by Snodgrass and Yuditsky, this may not be a viable method by which to prevent the possibility of systematically eliminating (informative) RTs to difficult-to-name pictures.

A summary of the multiple regression results from the present study and the two other studies mentioned is reported in Table 2A. The letter x is reported for those measures that resulted in reliable predictors of the RT distribution in each of the studies. When a measure did not enter into the regression equation in a given study, the measure is reported as nonsignificant (n.s.). When a particular measure was not considered in a study, the measure is reported as nonavailable (n.a.).

Table 1B
Results of the Multiple Regression Analysis

Measure	β	*SE*	*t*	*p*
LET	−.127	.088	1.451	.148
SYL	.116	.087	1.329	.185
FRQ	−.095	.058	1.650	.100
FAM	−.002	.056	0.030	.976
TYP	−.124	.053	2.356	.019
AoA	.077	.064	1.192	.234
	(.138)	(.065)	(2.118)	(.035)*
NA	.156	.147	1.060	.290
CA	−.598	.132	4.529	.000
H	.163	.075	2.183	.030

Note—For each measure, beta weight (β), standard error (*SE*), *t* statistic value (*t*), and level of probability (*p*) are reported. LET, number of letters; SYL, number of syllables; FRQ, frequency; FAM, familiarity; TYP, typicality; AoA, age of acquisition; NA, name agreement; CA, concept agreement. *AoA results after the temporary exclusion of CA values from the stepwise regression.

Table 2A highlights both the similarities and the differences among the studies. The first important difference is represented by the fact that the TYP measures were collected and treated as an independent factor only in our normative study. This difference is all the more striking in light of the evidence that TYP is a relevant cognitive dimension when concepts must be categorized (Rosch, 1975) and that TYP plays a significant role in modulating picture RTs (see, e.g., Jolicœur, Gluck, & Kosslyn, 1984), as well as other behavioral dependent measures (e.g., Malt & Smith, 1984). Convergent with this earlier empirical evidence, the results of the stepwise multiple regression that we performed on our data set support the notion that TYP must be considered in studies in which RTs are used as a dependent variable or, more generally, in studies in which pictures are used as experimental stimuli.

Table 2A also shows that measures of NA consistently resulted in reliable predictors of the RT distribution. It is somewhat surprising that, contrary to all other studies, NA, in the form of the percentage of subjects who produced a given name in response to a particular picture, was not an element of the regression equation in the present study. In our view, this finding may reflect the fact that, in quite a large proportion of the cases in the present study, alternative names that were produced were "good" lexical substitutes (i.e., synonyms) of the correct names. This had the likely consequence that variations in the percentage of NA (which decreases as the number of alternatives increases) could not be directly reflected in the RT distribution. Additional information about the role of stimulus codability, however, is provided by the significant weight associated with both the *H* statistic (considered in all the studies) and measures of CA (considered only by Snodgrass & Yuditsky, 1996) in accounting for the RTs collected in the present study. As has been convincingly argued by many investigators (e.g., Alario & Ferrand, 1999; Lachman, 1973; Lachman, Shaffer, & Hennrikus, 1974; Snodgrass & Vanderwart, 1980; Snodgrass & Yuditsky, 1996), both *H* and CA measures can

Table 2A
Summary of the Results of Multiple Regression Analyses Performed in the Present Study and in Two Previous Studies (S&Y: Snodgrass & Yuditsky, 1996; BM&E: Barry, Morrison, & Ellis, 1997) in Which Picture-Naming Times Were Considered

Study	LET	SYL	FRQ	FAM	TYP	AoA	NA	CA	*H*
Present	n.s.	n.s.	n.s.	n.s.	*x*	*x*	n.s.	*x*	*x*
S&Y	n.s.	n.s.	$x^{\neq}$	$x^{\neq}$	n.a.	*x*	*x*	*x*	*x*
BM&E	n.s.*	n.a.	*x*	n.s.	n.a.	*x*	*x*	n.a.	*x*

Note—LET, number of letters; SYL, number of syllables; FRQ, frequency; FAM, familiarity; TYP, typicality; AoA, age of acquisition; NA, name agreement; CA, concept agreement; n.s., nonsignificant; n.a., nonavailable; *x*, significant beta weight; $x^{\neq}$, negligible beta weight. *Picture name length measures as number of phonemes.

be taken as better indexes of stimulus codability with respect to the raw percentage of correct denominations. The *H* statistic is computed by taking into account the number of alternatives produced following the presentation of a particular picture. *H* differs for pictures having the same percentage of NA but different numbers of alternative names produced by subjects. Furthermore, CA estimates reflect the degree of semantic appropriateness of alternative denominations—that is, CA varies as a function of whether alternative names are synonyms of the correct names or names referring to semantically distinguishable concepts. Given two pictures with the same percentage of NA and the same number of alternative names, CA is higher if one picture elicits more synonyms than does the other.

Table 2A indicates that a significant role for AoA measures was found in all of the three studies. Furthermore, AoA turns out to be a better predictor of RTs than are both FAM (nonsignificant or negligible in all the studies) and FRQ (significant in Barry et al.'s, 1997, work only). It should be noted that, while it might be theoretically relevant to ponder the higher reliability of AoA in predicting picture RTs as compared with FAM (see Morrison, Ellis, & Quinlan, 1992, for details on this issue), our impression is that the discussion about the rather variable weight of FRQ in the three regressions examined in the present context may be limited to the choice of the different FRQ count databases. Specifically, as Snodgrass and Yuditsky (1996; see also Snodgrass & Vanderwart, 1980) did in their study, we used an FRQ count database of written words (Stella & Job, in press). Barry et al. reported results that were referred to a FRQ count database of spoken words. The latter was, reasonably, a choice more compatible with the vocal responses subjects had to produce in all the studies (i.e., naming) and may account for the fact that FRQ had a significant weight only in Barry et al.'s study.

Table 2A shows also that word length measures (number of letters, phonemes, or syllables) did not play a significant role in determining the RT distribution in any of the three studies.

Direct comparisons with previous normative studies. One potential confound in the comparison described in the foregoing section resides in the fact that the number of independent variables entering into the different regression equations was necessarily limited. For this reason, it is important to note that the list of these variables (e.g., FAM, AoA, etc.) constitutes only a subset of all the variables that might potentially affect object naming. In each normative study listed in Table 2A, the choice of the independent variables hypothesized to account for the RT distribution was substantially determined by three factors—namely, by previous evidence that demonstrated the effective role of a particular independent variable in influencing object naming, by theoretically grounded predictions about the possible role that an independent variable might play in object processing, or by the need to select a set of independent variables common to the majority of studies, with the aim of estimating their relative weight in affecting performance on objects across cultures.

Concerning the latter point, with the view of providing a direct comparison between the present norms and norms standardized for different populations, a potential confound may be represented by the difference in the drawings used for data collection. For the sake of clarity, suppose that we have two different pictures of the same concept—say, a pitcher—and suppose that each picture has been associated with a different NA value following a rating procedure carried out by presenting one picture to Italian subjects and the other picture to American subjects. As a matter of fact, it is impossible to assess whether this difference is due to a pure cultural difference in the subjects' population or to a structural difference in the pictures submitted to the subjects' judgment (or to an interaction between these two factors). It might be that, for example, the picture presented to the Italian subjects was less detailed than the American picture, and this, in turn, might have been reflected in a higher degree of uncertainty about its identity (Is it a pitcher or a mug?). Similar examples can be offered for the other independent variables considered in our normative study, with all the examples pointing to the same problem—that is, the impossibility of distinguishing between cultural and structural factors in determining the values assigned to the rated dimensions.

Fortunately in our case, this problem can be solved by taking advantage of the presence, in the literature, of Italian norms from a study in which Snodgrass and Vanderwart's (1980) stimuli were used (Nisi et al., 2000) and for which data were collected for a subset of measures

that were also included in our study (i.e., for FAM, AoA, and NA). Furthermore, a fair number of concepts (N = 105, reported in Appendix B) were common to our study and that of Snodgrass and Vanderwart. The method we propose to use to disentangle cultural and structural influences on the measures provided for our new stimuli hinges on the following logic. We assume that the correlation coefficient between our measures and the measures collected by Nisi et al. for the common set of concepts provides the benchmark of the influence of structural factors on the distribution of the rating values across the stimuli. That is, given that our subjects and Nisi et al.'s subjects can be thought of as having been taken from the same population (Italian university students), our hypothesis is that any deviation from the perfect correlation between our measures and those of Nisi et al. can be reasonably accounted for by a difference in the stimuli used in the respective normative studies. Our next step is to compare each of these correlation coefficients with the correlation coefficients between our measures and the measures collected for American, French, and Spanish and to interpret any significant difference among these correlation coefficients as indicators of the effective influence of cultural differences on the distribution of the rating values across the stimuli.[3]

A list of the correlation coefficients for the measures from the different studies is reported in Table 2B. Several comments are in order. The first comment is related to the influence of structural factors on the distribution of the values for the measures collected on the two Italian samples. Evidence concerning this point can be derived from the observation of the correlation coefficients between the measures collected in our study and those collected in Nisi et al.'s (2000) study. These correlation coefficients are reported in bold in Table 2B. As is clear, although FAM and AoA measures are highly correlated in the two studies, the degree of correlation between NA measures, although substantial, is somewhat lower than that for the other measures. Although a systematic investigation of this issue is beyond the scope of the present work, we think we have already provided hints for an explanation for this relatively low correlation between NA measures. The framework we have adopted in the present section leads us to suspect that the interpretation resides in a difference in the material used for data collection, with NA values being a function of the number and/or the quality of the details reported for the pictures used in the different studies. It is perhaps worth noting that our sample, in general, showed less variability in the number of alternative names produced in response to the presentation of the pictures than Nisi et al.'s sample did [$t(104) = 6.91, p < .001$]. Furthermore, this result also suggests that, whereas NA is influenced by structural information, as was suggested by Sanfeliu and Fernandez (1996), FA and AoA values are produced directly by the concept represented by a given picture.

Table 2B
Correlation Coefficients Between a Subset of the Present Measures and the Measures From a Different Italian Sample Collected Using Snodgrass and Vanderwart's Pictures (Nisi, Longoni, & Snodgrass, 2000), From an American Sample (Snodgrass & Vanderwart, 1980, for Familiarity, Frequency, and *H* measures, and Snodgrass & Yuditsky, 1996, for Age of Acquisition Measures), From a French Sample (Alario & Ferrand, 1999), and From a Spanish Sample (Sanfeliu & Fernandez, 1996)

Measures From Present Study	Italian	American	French	Spanish
FAM	**.72**	.68	.71	.46*
AoA	**.91**	.80*	.87	n.a.
H	**.51**	.28*	.36	.23*
FRQ	**1.00**	.67*	.74*	.74*

Note—FAM, familiarity; AoA, age of acquisition; *H*, *H* statistic: FRQ, name frequency; n.a., nonavailable. *$p < .05$. The table provides indications on the results of z tests performed by comparing the correlation coefficients between the present measures and the Italian NL&S's measures (in bold) to the correlation coefficients between the present measures and, in turn, the American, French, and Spanish measures.

Cultural differences emerge by comparing the magnitudes of the correlations between the two Italian samples with those between our measures and those of the foreign samples. At first blush, the pattern of correlations among the values provided by our sample and the "foreign" values seem to reflect the pattern of correlations between the values from the two Italian samples. As is evident for each sample, correlations are higher for FAM and AoA values and lower for NA values. This pattern of results was expected, on the assumption that NA values depend on language more than do the other measures. Similar results have been reported basically by all the studies in which formally equivalent comparisons have been performed (e.g., Alario & Ferrand, 1999; Sanfeliu & Fernandez, 1996). Significant differences between these correlation coefficients are marked with asterisks in Table 2B. Focusing first on the results of the z tests performed on the correlation coefficients among NA measures, the results in Table 2B suggest that cultural differences play a significant role only in the comparison between the Italian values (r = .51) and both the American English and the Spanish values (r = .28 and .23, respectively). The correlation between the Italian and the French values do not reflect any cultural difference on the distribution of NA values, with the correlation coefficient between our values and the French values (r = .36) being statistically comparable with the correlation coefficient between the two Italian samples. A cultural difference is also evident in the results for the FAM measure. Whereas the correlation between our Italian values and both the American and the French values (r = .68 and .71, respectively) is high and comparable with the correlation for the Italian–Italian values (r = .72), the significant difference of the Italian–Spanish correlation coefficient (r = .46) suggests that that two populations differ in the degree of FAM with the same concepts. As to the AoA measures (collected only in the American and French studies), the results reported in Table 2B in-

dicate that, contrary to the correlation between the Italian and the French values ($r = .87$), the correlation between the Italian and the American values ($r = .80$) is significantly different from the Italian–Italian correlation coefficient and suggest that the distribution of AoA values across the same set of stimuli is effectively influenced by cultural factors. Finally, name FRQ measures were assumed to be perfectly correlated between the two Italian studies. This likely caused the *z* test among all the other correlation coefficients to be highly sensitive to any deviations from $r = 1$. Table 2B shows that all the comparisons between the Italian–Italian correlation coefficient for frequency and the Italian–foreign correlation coefficients, although quite high ($r > .67$) in all cases, consistently resulted in a significant difference.

CONCLUSIONS

The main goal of the present work was to present Italian normative measures for a new set of 266 pictures that have been standardized for NA, FRQ, TYP, and RT. These pictures can thus be directly used in research with Italian-speaking subjects. It is our opinion that these pictures will be useful for researchers involved in different fields of experimental psychology, such as attention, memory, perception, and language. The regression analyses presented in this work have documented the significant role that a subset of the rated object dimensions has in determining subjects' naming performance on these objects. Concerning this point, the present results indicated that a particular dimension, TYP, which has never been taken into consideration in previous normative studies, plays a determinant role in object naming, with pictures of more typical elements being named faster than pictures of less typical elements. An indirect comparison with previous naming studies has indicated both similarities and differences, across the Italian, American, and English samples, in the type and number of object dimensions that affect picture RT. For instance, whereas the *H* statistic and CA seem to be robust predictors of the RT, a substantial fluctuation in weight has been evidenced for name FRQ and FAM across the studies considered in the present work.

Furthermore, with the view of (1) making apparent the discrepancies between the present normative measures and the measures provided for linguistically different samples (collected by using Snodgrass & Vanderwart's, 1980, pictures) and (2) encouraging the use of the present set of pictures in order to expand research potentialities, a set of comparisons has been carried out, in order to show the relative weight of structural and cultural factors in generating such differences. An estimate of the weight of structural factors on the values reported in the present work has been provided through the correlation between the present measures and a subset of Italian measures collected by using Snodgrass and Vanderwart's pictures. This gave us the opportunity, by performing a series of *z* tests on the correlation coefficients between the present measures and the measures provided for non-Italian samples, to separate the influence of structural from cultural factors in the rated dimensions.

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NOTES

1. As an alternative to the retrospective method used in the present context to obtain estimates of age of acquisition (AoA), several more direct (and arguably more objective) methods may be proposed. For instance, Ellis and Morrison (1998) recently reported AoA measures based on the actual naming performance of children of different ages, which is probably the best candidate among these new proposals. Our choice of the particular method described in this section, however, is to be thought of as constrained by the main focus of the paper, which is to devise a direct comparison with previously published work in the normative field. For this reason, we had to commit to the tradition of (1) using retrospective judgments of AoA, (2) submitting to subjects, in the AoA rating session, a verbal representation of the concepts considered (i.e., words), and (3) stressing, in the instructions, the importance of focusing on the concept each word referred to.

2. Part of the material presented in the first session was also presented in the second session. The second session served the purpose of presenting new objects that were made available by the time the first session had already began. In an attempt to counterbalance the number of items presented across sessions, new objects were intermixed with objects presented in the first session, whose NA percentage value was greater than 90%.

3. In order to apply the method described in the present section, all the scores (reported in Appendix B) were transformed into standard *z* scores. Each correlation coefficient was then transformed into Fisher's *z*, and a *z* test was carried out to estimate the difference between two correlation coefficients. If the difference was greater than 1.96, the difference was taken to be significant with .95 probability.

(*Continued on next page*)

APPENDIX A
List of the Stimuli and Normative Measures Used in the Present Study (See the Text for Details)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
AEREO	AIRPLANE	VEH	5	4	2.86	2	5.7	*1.3*	5.4	*2.0*	3.5	*1.3*	**611**	98	98	0.00
AGLIO	GARLIC	VEG	5	2	2.07	2	5.8	*1.8*	3.9	*1.6*	4.7	*2.0*	**1542**	52	52	1.28
–> cipolla (14)	–> onion															
–> fico (14)	–> fig															
–> sacco (5)	–> sack															
–> zucca (7)	–> pumpkin															
ALBICOCCA	APRICOT	FRU	9	4	1.00	2	5.3	*1.8*	5.6	*1.5*	3.1	*1.4*	**1183**	50	50	1.21
–> noce (5)	–> walnut															
–> pesca (14)	–> peach															
–> prugna (10)	–> plum															
–> susina (7)	–> plum															
AMACA	HAMMOCK	MIX	5	3	1.08	1	4.5	*2.2*	3.0	*2.1*	5.3	*1.3*	**997**	95	95	0.00
AMBULANZA	AMBULANCE	VEH	9	4	1.60	2	5.3	*2.0*	3.9	*1.6*	5.1	*1.4*	**765**	95	95	0.00
ANANAS	PINEAPPLE	FRU	6	3	1.36	1	4.9	*1.9*	6.1	*1.3*	4.5	*1.7*	**717**	100	100	0.00
ANATRA	DUCK	BIR	6	3	1.41	2	5.2	*1.4*	3.9	*1.9*	3.9	*1.0*	**996**	60	60	0.91
–> oca (19)	–> goose															
–> papera (19)	–> gosling															
ANGURIA	WATERMELON	FRU	7	3	1.08	2	5.9	*1.4*	6.7	*0.8*	3.2	*1.2*	**676**	86	93	0.27
–> cocomero (7)*	–> watermelon															
ANTENNA	ANTENNA	MIX	7	3	1.93	1	5.4	*1.9*	4.5	*2.3*	5.0	*1.3*	**871**	95	95	0.00
APECAR	THREE–WHEELED VAN	VEH	6	3	0.01	2	6.0	*1.4*	3.5	*2.0*	6.9	*1.5*	**1137**	45	59	1.09
–> camioncino (10)	–> small truck															
–> furgoncino (7)*	–> small van															
–> furgone (5)	–> van															
–> motocarro (7)*	–> tricar															
AQUILA	EAGLE	BIR	6	3	2.28	2	4.1	*1.8*	6.3	*1.0*	4.1	*1.6*	**906**	71	71	0.71
–> falco (24)	–> hawk															
–> rapace (5)	–> rapacious															
ARANCIA	ORANGE	FRU	7	3	1.75	2	5.7	*1.4*	6.6	*0.5*	2.7	*0.9*	**836**	83	83	0.43
–> limone (5)	–> lemon															
–> mandarino (5)	–> tangerine															
ARCO	BOW	WEA	4	2	2.49	1	2.0	*1.3*	3.4	*1.8*	4.1	*1.3*	**787**	100	100	0.00
ARCO	ARCH	BUI	4	2	2.49	2	4.0	*1.6*	4.5	*2.1*	6.7	*1.3*	**934**	79	79	0.27

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
–> tempio (7)	–> temple															
ARMADIO	WARDROBE	FOR	7	3	2.14	2	6.5	*0.8*	7.0	*0.0*	2.9	*1.0*	**827**	83	83	0.22
–> libreria (5)	–> bookcase															
ARPA	HARP	INS	4	2	1.40	1	3.9	*1.6*	4.4	*2.1*	5.7	*1.4*	**775**	100	100	0.00
ASCIA	AXE	WEA	5	2	1.26	2	2.8	*1.8*	2.5	*1.7*	5.0	*1.8*	**675**	69	81	0.85
–> accetta (12)*	–> hatchet															
–> martello (7)	–> hammer															
–> mazza (5)	–> staff															
ASINO	DONKEY	MAM	5	3	1.85	2	5.5	*1.2*	5.3	*1.7*	2.5	*0.9*	**788**	60	60	0.74
–> cavallo (31)	–> horse															
–> mulo (5)	–> mule															
ASPARAGO	ASPARAGUS	VEG	8	4	0.70	2	5.7	*1.7*	3.8	*2.0*	5.1	*1.7*	**1127**	69	69	0.58
–> bastone (12)	–> stick															
–> ramo (5)	–> branch															
ATTACCAPANNI	CLOTHES–STAND	FOR	12	5	1.23	2	4.5	*2.0*	4.5	*1.8*	4.2	*1.7*	**874**	79	91	0.37
–> appendiabiti (12)*	–> hat–rack															
AUTOMOBILE	CAR	VEH	10	5	2.60	1	7.0	*0.0*	7.0	*0.0*	2.8	*1.3*	**804**	40	100	1.34
–> auto (9)*	–> automobile															
–> macchina (51) @*	–> motorcar															
AVVOLTOIO	VULTURE	BIR	9	4	1.28	2	3.3	*1.6*	3.2	*1.8*	5.1	*1.2*	**935**	29	65	1.13
–> aquila (10)	–> eagle															
–> condor (36) @*	–> condor															
–> falco (7)	–> hawk															
BALESTRA	CROSSBOW	WEA	8	3	1.18	2	1.5	*0.8*	3.3	*1.7*	6.1	*1.4*	**1144**	52	52	0.52
–> arco (31)	–> bow															
BANANA	BANANA	FRU	6	3	1.68	1	6.0	*1.4*	6.8	*0.6*	2.3	*0.7*	**592**	100	100	0.00
BARCA	BOAT	VEH	5	2	2.60	1	4.7	*2.1*	3.0	*1.6*	2.2	*0.8*	**849**	93	98	0.22
–> barchetta (5)*	–> small boat															
BASTONE	STICK	WEA	7	3	2.36	2	2.7	*1.8*	1.4	*0.9*	2.2	*0.8*	**1023**	55	79	0.85
–> clava (12)*	–> club															
–> legno (7)*	–> piece of wood															
–> mazza (5)*	–> staff															
BATTERIA	DRUMS	INS	8	3	1.72	2	5.1	*1.5*	5.9	*1.6*	5.1	*1.2*	**745**	93	93	0.00

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
BICCHIERE	GLASS	HOU	9	3	2.53	2	7.0	*0.0*	6.1	*1.3*	1.8	*0.6*	**630**	100	100	0.00
BICICLETTA	BICYCLE	VEH	10	4	2.45	1	6.9	*0.4*	5.3	*1.8*	2.3	*0.8*	**631**	95	100	0.22
–> bici (5)*	–> bike															
BILANCIA	SCALE	MIX	8	3	2.20	2	3.3	*1.6*	3.9	*2.1*	3.4	*1.1*	**719**	100	100	0.00
BINOCOLO	BINOCULARS	MIX	8	4	1.43	2	4.9	*1.8*	5.9	*1.2*	4.9	*1.4*	**774**	71	71	0.49
–> cannocchiale (24)	–> telescope															
BIRILLO	SKITTLE	MIX	7	3	0.78	1	3.1	*1.5*	3.5	*2.3*	2.9	*1.2*	**977**	93	93	0.00
BOLLITORE	KETTLE	REC	9	4	0.70	2	3.3	*1.8*	3.4	*1.8*	5.9	*1.5*	**885**	14	14	0.62
–> caffettiera (7)	–> mocha coffee–maker															
–> teiera (71) @	–> teapot															
BOMBA	BOMB	WEA	5	2	2.58	2	1.3	*0.8*	5.3	*1.9*	4.7	*0.9*	**1037**	79	84	0.75
–> borraccia (7)	–> water–bottle															
–> granata (5)*	–> hand–grenade															
–> mina (7)	–> mine															
BOTTE	BARREL	REC	5	2	1.84	2	3.8	*1.5*	4.3	*1.8*	3.9	*1.1*	**749**	93	93	0.00
BOTTIGLIA	BOTTLE	REC	9	3	2.40	2	6.3	*0.6*	5.9	*1.6*	1.9	*0.8*	**669**	98	98	0.00
BROCCOLI	BROCCOLI	VEG	8	3	1.18	2	5.3	*2.1*	4.9	*2.0*	6.1	*1.7*	**1241**	10	10	1.05
–> cavolfiore (31) @	–> cauliflower															
–> cavolo (31) @	–> cabbage															
BUSSOLA	COMPASS	MIX	7	3	1.67	2	3.6	*2.0*	5.9	*1.8*	5.3	*0.9*	**925**	95	95	0.22
–> orologio (5)	–> watch															
CACTUS	CACTUS	FLO	6	2	1.43	2	4.9	*2.2*	4.5	*1.8*	5.2	*1.2*	**742**	93	93	0.00
CALZA	SOCK	CLO	5	2	1.32	2	4.9	*1.8*	4.9	*1.9*	2.7	*1.4*	**738**	76	76	0.46
–> calzino (19)	–> sock															
CALZE	STOCKINGS	CLO	5	2	2.02	1	4.9	*1.8*	4.9	*1.9*	3.7	*2.2*	**1002**	50	50	1.17
–> calzetti (7)	–> short socks															
–> collant (14)	–> pantyhose															
–> calzini (26)	–> socks															
CALZINI	SOCKS	CLO	7	3	1.51	1	5.9	*1.7*	5.1	*1.6*	2.4	*0.7*	**704**	52	97	0.89
–> calze (33)*	–> socks															
–> calzetti (12)*	–> short socks															
CALZINO	SOCK	CLO	7	3	0.85	2	5.9	*1.7*	5.1	*1.6*	2.9	*1.1*	**606**	98	98	0.00
CAMICIA	SHIRT	CLO	7	3	2.62	2	6.1	*1.1*	6.7	*0.6*	2.9	*1.2*	**724**	98	98	0.00

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
CAMINO	CHIMNEY	BUI	6	3	2.15	2	5.3	*1.6*	3.3	*2.1*	3.5	*1.5*	**707**	93	93	0.22
–> fumo (5)	–> smoke															
CAMION	TRUCK	VEH	6	2	2.29	1	6.2	*0.9*	5.9	*1.0*	3.1	*1.6*	**747**	93	93	0.22
–> furgone (5)	–> van															
CAMMELLO	CAMEL	MAM	8	3	1.53	2	3.1	*1.7*	3.6	*2.0*	3.9	*1.3*	**989**	93	93	0.27
–> dromedario (7)	–> dromedary															
CAMPANILE	BELL–TOWER	BUI	9	4	2.00	2	5.1	*1.5*	4.5	*1.6*	3.4	*1.6*	**890**	86	86	0.43
–> chiesa (5)	–> church															
–> torre (5)	–> tower															
CANCELLO	GATE	BUI	8	3	1.93	1	4.9	*1.2*	2.6	*1.7*	2.8	*1.2*	**778**	95	95	0.00
CANDELA	CANDLE	MIX	7	3	1.98	1	6.3	*1.1*	2.5	*1.5*	2.7	*1.0*	**668**	100	100	0.00
CANE	DOG	MAM	4	2	2.78	1	6.6	*0.9*	6.7	*0.5*	1.9	*0.7*	**656**	100	100	0.00
CANGURO	KANGAROO	MAM	7	3	0.95	1	3.7	*2.1*	4.9	*1.8*	3.9	*1.9*	**730**	98	98	0.00
CANNONE	CANNON	WEA	7	3	1.98	1	1.7	*1.0*	4.0	*2.2*	4.6	*1.4*	**712**	95	95	0.00
CANOTTIERA	SINGLET	CLO	10	4	1.15	1	5.9	*1.1*	5.5	*1.9*	2.7	*1.0*	**841**	81	88	0.87
–> canotta (7)*	–> singlet															
–> maglietta (12)	–> T–shirt															
CAPPELLO	HAT	CLO	8	3	2.58	1	2.8	*1.7*	4.9	*1.5*	2.5	*0.9*	**574**	100	100	0.00
CARAFFA	PITCHER	REC	7	3	1.08	2	5.1	*1.7*	5.5	*1.6*	4.9	*1.7*	**1016**	38	55	1.17
–> bottiglia (5)	–> bottle															
–> brocca (17)*	–> jug															
–> vaso (29)	–> vase															
CARAMELLA	CANDY	MIX	9	4	1.32	1	6.3	*0.8*	6.6	*0.6*	1.6	*0.6*	**669**	100	100	0.00
CARCIOFO	ARTICHOKE	VEG	8	3	1.81	2	6.0	*1.8*	5.3	*1.5*	4.1	*1.3*	**892**	81	81	0.00
CAROTA	CARROT	VEG	6	3	1.72	1	6.7	*0.8*	6.3	*1.1*	2.9	*1.4*	**682**	100	100	0.00
CARRETTO	CART	VEH	8	3	1.51	2	3.9	*2.1*	1.5	*0.7*	3.8	*1.4*	**879**	71	85	0.76
–> carriola (12)	–> wheel barrow															
–> carro (14)*	–> wagon															
CARRIOLA	WHEELBARROW	VEH	8	3	1.08	2	5.1	*1.8*	1.2	*0.6*	3.7	*1.4*	**804**	100	100	0.00
CARROZZA	CARRIAGE	VEH	8	3	2.34	1	2.7	*2.1*	1.7	*1.0*	3.7	*0.8*	**1116**	90	90	0.00
CASA	HOUSE	BUI	4	2	3.94	1	6.3	*1.3*	6.2	*1.9*	1.7	*0.9*	**590**	100	100	0.00
CASCO	HELMET	MIX	5	2	1.52	1	4.6	*1.8*	4.1	*2.5*	4.7	*1.5*	**682**	100	100	0.00
CASSETTO	DRAWER	FOR	8	3	2.20	1	6.3	*0.8*	3.4	*2.1*	2.8	*0.9*	**659**	93	93	0.22

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
–> scatola (5)	–> box															
CASTAGNA	CHESTNUT	FRU	8	3	1.53	2	5.9	*1.4*	4.6	*1.8*	3.3	*1.2*	**927**	86	86	0.55
–> cipolla (10)	–> onion															
–> noce (5)	–> walnut															
CASTELLO	CASTLE	BUI	8	3	2.72	1	3.9	*2.0*	5.4	*1.8*	2.9	*1.0*	**834**	90	95	0.22
–> rocca (5)*	–> rock															
CAVALLO	HORSE	MAM	7	3	2.94	1	5.7	*1.0*	5.9	*0.8*	2.6	*1.1*	**657**	100	100	0.00
CERNIERA	ZIPPER	CLO	8	3	1.54	2	5.9	*1.5*	2.7	*1.9*	4.0	*1.8*	**1052**	67	91	0.73
–> lampo (12)*	–> zipper															
–> zip (12)*	–> zip															
CERVO	DEER	MAM	5	2	1.99	2	4.9	*1.6*	4.8	*1.5*	3.9	*1.8*	**716**	79	79	0.33
–> alce (10)	–> moose															
CETRIOLO	CUCUMBER	VEG	8	3	1.04	2	5.7	*1.6*	3.8	*2.1*	4.2	*1.8*	**1103**	60	60	0.37
–> zucchina (12)	–> zucchini															
CHIESA	CHURCH	BUI	6	2	3.22	1	5.2	*1.3*	5.8	*1.1*	2.9	*1.4*	**805**	100	100	0.00
CHITARRA	GUITAR	INS	8	3	2.04	1	6.0	*1.6*	7.0	*0.0*	4.3	*1.6*	**773**	100	100	0.00
CIABATTA	SLIPPER	CLO	8	3	0.70	2	4.1	*2.2*	3.1	*2.1*	2.7	*0.9*	**820**	50	90	0.96
–> pantofola (40)*	–> slipper															
–> sandalo (5)	–> sandal															
–> scarpa (5)	–> shoe															
CIABATTE	SLIPPERS	CLO	8	3	1.18	1	4.1	*2.2*	3.1	*2.1*	2.6	*0.7*	**784**	50	94	0.52
–> pantofole (44)*	–> slippers															
CICLAMINO	CYCLAMEN	FLO	9	4	0.48	2	4.4	*2.2*	3.9	*2.4*	4.9	*1.6*	**2071**	19	19	0.95
–> fiore (14)	–> flower															
–> foglie (5)	–> leaves															
–> viola (10)	–> violet															
CICOGNA	STORK	BIR	7	3	1.48	2	3.3	*1.8*	3.3	*1.2*	3.1	*1.1*	**2042**	14	14	1.80
–> airone (12)	–> heron															
–> fenicottero (7)	–> flamingo															
–> gru (12)	–> crane															
–> pellicano (12)	–> pelican															
–> uccello (17)	–> bird															
CIGNO	SWAN	BIR	5	2	1.71	1	5.5	*1.1*	3.5	*1.5*	3.5	*1.1*	**980**	93	93	0.27

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
–> oca (7)	–> goose															
CILIEGIA	CHERRY	FRU	8	3	1.04	2	6.1	*1.2*	6.3	*0.9*	2.9	*1.2*	**803**	81	81	0.37
–> mela (12)	–> apple															
CINTURA	BELT	CLO	7	3	2.12	1	5.9	*1.0*	4.1	*2.0*	3.7	*1.4*	**627**	90	95	0.22
–> cinta (5)*	–> waistband															
CIPOLLA	ONION	VEG	7	3	1.96	2	6.1	*1.6*	5.1	*1.6*	3.5	*1.2*	**1026**	83	83	0.33
–> aglio (10)	–> garlic															
CLARINO	CLARINET	INS	7	3	0.30	2	4.1	*1.9*	5.0	*2.2*	6.0	*1.3*	**901**	26	26	0.87
–> flauto (60) @	–> flute															
–> oboe (5)	–> oboe															
–> piffero (5)	–> pipe															
CLESSIDRA	SAND–GLASS	MIX	9	3	0.78	1	3.4	*1.6*	2.7	*1.9*	6.1	*1.4*	**798**	95	95	0.00
COLOMBA	DOVE	BIR	7	3	1.69	2	4.3	*1.9*	3.9	*2.0*	3.9	*1.4*	**1071**	29	29	4.47
–> gallina (10)	–> hen															
–> pavone (7)	–> peacock															
–> piccione (12)	–> pigeon															
–> tacchino (7)	–> turkey															
–> tortora (12)	–> turtle–dove															
–> uccello (10)	–> bird															
COLTELLO	KNIFE	HOU	8	3	2.40	2	6.9	*0.4*	6.3	*1.0*	2.3	*1.1*	**574**	100	100	0.00
CONIGLIO	RABBIT	MAM	8	3	2.07	1	6.1	*0.8*	4.8	*1.0*	2.8	*0.9*	**715**	93	93	0.00
COPERCHIO	LID	HOU	9	3	1.85	2	6.7	*0.8*	4.9	*2.2*	3.0	*0.9*	**841**	81	81	0.27
–> pentola (7)	–> pot															
CORNAMUSA	BAGPIPE	INS	9	4	0.30	2	2.9	*2.1*	3.2	*1.7*	5.6	*1.3*	**1014**	60	60	0.37
–> zampogna (12)	–> bagpipe															
CRAVATTA	TIE	CLO	8	3	2.20	1	3.3	*2.0*	4.3	*2.0*	3.9	*1.0*	**656**	98	98	0.00
CUCCHIAIO	SPOON	HOU	9	3	2.02	2	6.8	*0.8*	6.5	*0.9*	2.0	*1.2*	**632**	100	100	0.00
CUPOLA	CUPOLA	BUI	6	3	1.88	2	4.0	*1.8*	4.3	*2.0*	6.1	*1.3*	**850**	86	86	0.00
DAMIGIANA	DEMIJOHN	REC	9	4	0.60	2	4.1	*1.6*	4.5	*1.6*	4.9	*1.4*	**1029**	57	57	0.73
–> botte (14)	–> barrel															
–> fiasco (10)	–> flask															
DIRIGIBILE	DIRIGIBLE	VEH	10	5	0.85	2	2.3	*1.9*	1.8	*0.9*	6.2	*1.5*	**961**	52	59	0.64
–> aerostato (7)*	–> aerostat															

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
–> mongolfiera (12)	–> fire–balloon															
DIVANO	COUCH	FOR	6	3	2.22	1	6.7	*0.6*	6.9	*0.4*	2.5	*1.1*	**764**	93	93	0.00
EDERA	IVY	FLO	5	3	1.60	2	5.7	*1.4*	4.9	*2.0*	4.9	*1.1*	**894**	74	74	0.58
–> foglia (5)	–> leaf															
–> foglie (12)	–> leaves															
ELEFANTE	ELEPHANT	MAM	8	4	1.85	1	4.2	*2.1*	5.5	*1.6*	2.7	*1.4*	**655**	100	100	0.00
ELICOTTERO	HELICOPTER	VEH	10	5	2.15	1	4.8	*1.9*	4.3	*1.8*	4.0	*1.5*	**708**	98	98	0.00
FAGIANO	PHEASANT	BIR	7	3	1.08	2	3.5	*1.8*	3.5	*1.8*	5.3	*2.1*	**1519**	31	31	1.15
–> pavone (7)	–> peacock															
–> pernice (7)	–> partridge															
–> piccione (5)	–> pigeon															
–> uccello (14)	–> bird															
FALCE	SICKLE	MIX	5	2	1.67	2	2.3	*1.3*	4.2	*2.1*	5.1	*1.6*	**777**	71	71	0.22
–> accetta (5)	–> hatchet															
FARO	LIGHTHOUSE	BUI	4	2	1.72	1	3.1	*1.9*	3.3	*2.0*	3.9	*1.7*	**998**	90	90	0.00
FENICOTTERO	FLAMINGO	BIR	11	5	0.01	2	3.1	*1.8*	2.9	*1.3*	5.5	*1.1*	**1677**	43	43	0.87
–> airone (5)	–> heron															
–> gru (17)	–> crane															
–> uccello (5)	–> bird															
FIASCO	FLASK	REC	6	2	1.87	2	3.6	*1.5*	4.4	*1.6*	4.8	*1.5*	**798**	50	50	1.14
–> botte (5)	–> barrel															
–> bottiglia (17)	–> bottle															
–> bottiglione (5)	–> big bottle															
–> damigiana (7)	–> demijohn															
FICO	FIG	FRU	4	2	1.79	2	4.8	*1.9*	5.0	*1.4*	3.7	*1.4*	**1584**	52	52	0.46
–> pera (19)	–> pear															
FIONDA	SLING	WEA	6	2	1.11	2	2.7	*1.4*	2.7	*1.9*	4.4	*1.2*	**882**	90	90	0.00
FISARMONICA	ACCORDION	INS	11	5	1.38	2	4.2	*2.0*	3.6	*2.0*	4.8	*1.3*	**978**	86	86	0.22
–> armonica (5)	–> harmonica															
FLAUTO	FLUTE	INS	6	2	1.90	1	5.5	*1.7*	4.7	*2.3*	4.7	*1.0*	**913**	93	93	0.22
–> clarino (5)	–> clarinet															
FOGLIA	LEAF	MIX	5	2	2.17	2	6.3	*1.2*	6.7	*0.5*	1.9	*0.7*	**808**	90	90	0.27
–> edera (7)	–> ivy															

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
FORBICE	SCISSORS	MIX	7	3	1.53	1	5.9	*1.1*	4.8	*1.9*	3.0	*1.0*	**618**	100	100	0.00
FORCHETTA	FORK	HOU	9	3	1.67	2	6.8	*0.8*	6.2	*1.2*	1.8	*0.6*	**565**	100	100	0.00
FRAGOLA	STRAWBERRY	FRU	7	3	1.56	1	6.0	*1.6*	6.7	*0.5*	2.5	*0.7*	**700**	100	100	0.00
FRECCIA	DART	WEA	7	2	1.59	1	1.7	*1.0*	3.8	*1.6*	3.6	*1.4*	**710**	100	100	0.00
FRUSTA	WHIP	WEA	6	2	1.40	2	1.5	*0.9*	2.1	*1.4*	4.3	*1.6*	**968**	86	86	0.33
–> canna da pesca (10)	–> fishing-rod															
FUCILE	RIFLE	WEA	6	3	2.20	1	1.9	*1.8*	6.8	*0.4*	3.6	*1.5*	**797**	95	95	0.00
FUNGO	MUSHROOM	VEG	5	2	2.02	1	6.1	*1.8*	3.4	*1.8*	2.9	*1.3*	**735**	93	93	0.00
GABBIANO	SEA-GULL	BIR	8	3	1.79	2	5.1	*1.1*	6.4	*1.3*	3.1	*1.4*	**1180**	21	21	1.18
–> colomba (36) @	–> dove															
–> piccione (5)	–> pigeon															
–> uccello (17)	–> bird															
GALLINA	HEN	BIR	7	3	2.10	2	5.8	*1.4*	3.5	*1.8*	2.4	*1.2*	**722**	98	98	0.00
GALLO	ROOSTER	BIR	5	2	2.29	2	6.4	*0.9*	2.6	*1.5*	2.5	*1.3*	**673**	93	93	0.27
–> gallina (7)	–> hen															
GAROFANO	CARNATION	FLO	8	4	1.99	2	5.5	*1.3*	5.4	*1.5*	4.9	*1.7*	**1145**	45	45	0.49
–> fiore (24)	–> flower															
GATTO	CAT	MAM	5	2	2.58	1	6.5	*1.6*	6.1	*1.2*	2.0	*1.1*	**673**	95	95	0.00
GHIANDA	ACORN	FRU	7	2	0.70	2	3.9	*2.1*	2.7	*1.6*	4.3	*1.4*	**1060**	69	69	0.43
–> noce (17)	–> walnut															
GIACCA	JACKET	CLO	6	2	2.47	1	4.5	*1.9*	6.4	*0.7*	3.3	*1.8*	**821**	98	98	0.00
GIRAFFA	GIRAFFE	MAM	7	3	1.00	2	4.0	*1.9*	4.8	*1.8*	2.9	*1.5*	**559**	98	98	0.00
GIRASOLE	SUNFLOWER	FLO	8	4	1.56	2	6.1	*1.1*	4.9	*1.7*	3.7	*1.5*	**863**	69	69	0.48
–> fiore (5)	–> flower															
–> margherita (7)	–> daisy															
GONDOLA	GONDOLA	VEH	7	3	1.18	2	3.7	*2.1*	2.2	*1.7*	4.8	*2.0*	**835**	79	79	0.43
–> canoa (5)	–> canoe															
–> nave (5)	–> ship															
GONNA	SKIRT	CLO	5	2	2.17	1	4.0	*2.1*	5.7	*1.6*	2.5	*1.1*	**738**	98	98	0.00
GRATTACIELO	SKYSCRAPER	BUI	11	4	1.66	2	3.7	*1.4*	6.1	*1.6*	4.9	*1.0*	**703**	95	95	0.00
GRATTUGIA	GRATER	HOU	9	3	0.70	2	6.9	*0.4*	5.2	*1.7*	4.2	*1.5*	**680**	95	95	0.00
GUANTI	GLOVES	CLO	6	2	2.11	1	5.3	*1.8*	4.3	*1.5*	3.1	*1.3*	**639**	100	100	0.00
GUANTO	GLOVE	CLO	6	2	1.76	2	5.3	*1.8*	4.3	*1.5*	2.9	*1.2*	**620**	100	100	0.00

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
GUFO	OWL	BIR	4	2	1.90	2	4.1	*1.9*	4.2	*2.0*	4.1	*1.5*	**708**	90	90	0.33
–> civetta (10)	–> little owl															
IGLOO	IGLOO	BUI	5	2	1.11	1	1.9	*1.2*	2.9	*2.1*	5.7	*1.3*	**872**	93	93	0.00
IMBUTO	FUNNEL	HOU	6	3	1.38	2	6.7	*0.6*	4.3	*1.9*	3.8	*1.2*	**826**	100	100	0.00
IPPOPOTAMO	HIPPOPOTAMUS	MAM	10	5	0.95	2	2.9	*1.8*	3.9	*2.1*	4.0	*1.2*	**868**	83	83	0.22
–> rinoceronte (5)	–> rhinoceros															
KIWI	KIWI	FRU	4	2	1.38	2	5.5	*1.8*	5.5	*1.6*	5.3	*1.8*	**970**	69	69	0.43
–> mango (5)	–> mango															
–> pesca (5)	–> peach															
LAMPADA	LAMP	FOR	7	3	2.19	2	5.5	*1.3*	5.3	*1.3*	2.9	*1.0*	**717**	81	98	0.43
–> abat–jour (17)*	–> lampshade															
LEONE	LION	MAM	5	3	2.61	1	4.3	*2.3*	5.9	*1.1*	2.4	*0.8*	**683**	100	100	0.00
LETTO	BED	FOR	5	2	3.01	1	6.7	*0.6*	6.7	*0.6*	1.8	*0.4*	**620**	100	100	0.00
LIBRERIA	BOOKCASE	FOR	8	4	2.54	2	6.3	*0.8*	6.6	*0.5*	4.3	*1.8*	**891**	45	62	1.58
–> armadio (17)	–> wardrobe															
–> mensola (5)	–> console															
–> scaffale (10)*	–> shelf															
–> scaffali (7)*	–> shelves															
–> scrivania (10)	–> desk															
LIMONE	LEMON	FRU	6	3	2.10	1	5.1	*1.9*	4.9	*2.0*	2.7	*1.2*	**1064**	95	95	0.00
LOCOMOTIVA	LOCOMOTIVE	VEH	10	5	1.79	2	5.7	*1.8*	4.7	*1.7*	3.9	*1.2*	**835**	31	31	0.39
–> treno (67) @	–> train															
MAGLIONE	SWEATER	CLO	8	3	1.62	2	6.7	*0.6*	6.5	*0.7*	2.6	*1.2*	**611**	93	93	0.00
MAIALE	PIG	MAM	6	3	2.08	1	5.4	*1.5*	4.5	*1.6*	2.5	*1.2*	**778**	98	98	0.00
MANDOLINO	MANDOLIN	INS	9	4	0.90	2	3.5	*1.6*	4.1	*1.8*	6.3	*1.4*	**1149**	62	62	0.51
–> chitarra (26)	–> guitar															
MANETTE	HANDCUFFS	MIX	7	3	1.58	1	2.1	*1.8*	1.4	*0.8*	5.1	*1.1*	**761**	98	98	0.00
MAPPA	MAP	MIX	5	2	2.18	2	3.9	*2.0*	6.4	*1.1*	5.7	*1.3*	**802**	71	85	0.40
–> cartina (14)*	–> map															
MAPPAMONDO	GLOBE	MIX	10	4	0.95	1	5.7	*1.7*	3.2	*2.1*	4.9	*1.5*	**737**	98	98	0.00
MARGHERITA	DAISY	FLO	10	4	2.18	2	6.4	*1.6*	6.8	*0.4*	2.8	*1.6*	**920**	74	74	0.40
–> fiore (14)	–> flower															
MARTELLO	HAMMER	MIX	8	3	1.62	1	3.9	*2.0*	6.3	*1.0*	3.7	*1.2*	**672**	95	95	0.00

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
MAZZA	STAFF	WEA	5	2	1.71	2	1.4	*0.8*	2.7	*2.1*	5.3	*1.9*	**933**	60	60	0.33
–> arma (10)	–> weapon															
MELA	APPLE	FRU	4	2	2.27	1	6.3	*1.6*	6.9	*0.3*	1.7	*0.5*	**770**	100	100	0.00
MELANZANA	EGG–PLANT	VEG	9	4	1.28	2	6.4	*1.1*	5.3	*1.8*	4.1	*1.8*	**954**	95	95	0.00
MELOGRANO	POMEGRANATE	FRU	9	4	0.70	2	4.4	*2.3*	4.5	*2.0*	4.7	*1.5*	**1587**	64	64	0.27
–> cipolla (7)	–> onion															
MELONE	MELON	FRU	6	3	1.46	2	4.3	*1.8*	4.2	*2.1*	3.9	*1.1*	**1380**	43	43	1.03
–> anguria (10)	–> watermelon															
–> cocomero (5)	–> watermelon															
–> frutto (5)	–> fruit															
–> zucca (7)	–> pumpkin															
MESTOLO	LADLE	HOU	7	3	0.95	2	6.9	*0.4*	6.2	*1.4*	4.1	*1.0*	**854**	38	38	0.88
–> cucchiaino (12)	–> small spoon															
–> cucchiaio (48) @	–> spoon															
MITRA	LIGHT MACHINE GUN	WEA	5	2	2.03	2	1.3	*0.6*	6.2	*1.6*	5.3	*1.3*	**1037**	17	17	1.32
–> fucile (31) @	–> rifle															
–> mitragliatrice (7)	–> machine gun															
–> pistola (31) @	–> gun															
MITRAGLIATRICE	MACHINE GUN	WEA	14	5	1.46	2	1.2	*0.6*	5.0	*2.3*	5.6	*1.2*	**1017**	40	40	1.18
–> binocolo (10)	–> binocular															
–> macchina fotografica (7)	–> camera															
–> mitraglietta (5)	–> little machine gun															
–> telescopio (12)	–> telescope															
MONGOLFIERA	FIRE–BALLOON	VEH	11	4	1.23	2	3.1	*1.8*	1.7	*0.8*	5.2	*1.1*	**827**	83	83	0.00
MORA	MULBERRY	FRU	7	3	1.23	2	4.5	*1.8*	5.1	*1.8*	4.4	*1.7*	**1532**	57	57	1.16
–> lampone (7)	–> raspberry															
–> mirtillo (5)	–> bilberry															
–> ribes (5)	–> red current															
–> uva (19)	–> grapes															
MOTOSCAFO	MOTORBOAT	VEH	9	4	1.52	2	4.9	*1.6*	3.7	*1.4*	4.3	*1.5*	**1073**	33	33	0.91
–> barca (55) @	–> boat															
–> nave (5)	–> ship															
–> zattera (5)	–> raft															

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
MUCCA	COW	MAM	5	2	1.70	1	6.1	*1.2*	5.5	*1.6*	2.4	*1.2*	**870**	95	95	0.00
MULINO	WINDMILL	BUI	6	3	2.10	2	2.0	*1.2*	2.9	*1.9*	3.9	*1.4*	**770**	95	95	0.00
NACCHERE	CASTANETS	INS	8	3	0.70	2	3.5	*2.2*	2.8	*1.4*	5.6	*1.3*	**1267**	81	81	0.22
–> maracas (5)	–> maracas															
NARCISO	NARCISSUS	FLO	7	3	1.48	2	5.0	*1.6*	5.9	*1.1*	5.9	*0.9*	**1150**	5	5	0.67
–> fiore (19)	–> flower															
–> iris (5)	–> iris															
NAVE	SHIP	VEH	4	2	2.79	2	4.5	*2.3*	4.5	*1.6*	3.0	*1.2*	**747**	93	93	0.27
–> barca (7)	–> boat															
NINFEA	WATERLILY	FLO	6	3	0.90	2	4.3	*2.4*	3.7	*2.3*	6.2	*1.7*	**1853**	33	33	0.54
–> ninfa (7)	–> nymph															
–> orchidea (7)	–> orchid															
NOCE	WALNUT	FRU	4	2	2.30	1	5.1	*1.6*	4.6	*1.6*	3.4	*1.4*	**822**	95	95	0.00
OCA	GOOSE	BIR	3	2	2.65	2	5.0	*1.7*	3.4	*1.2*	3.1	*1.3*	**974**	71	78	0.90
–> anatra (12)	–> duck															
–> papera (7)*	–> gosling															
–> uccello (7)	–> bird															
OLIERA	OIL CRUET	REC	6	3	0.01	2	3.3	*1.6*	3.6	*1.7*	5.5	*1.5*	**1624**	31	50	1.73
–> acetiera (5)*	–> vinegar cruet															
–> ampolla (14)*	–> cruet															
–> boccetta (7)	–> small bottle															
–> bottiglia (12)	–> bottle															
–> caraffa (5)	–> pitcher															
–> vaso (7)	–> vase															
OMBRELLO	UMBRELLA	MIX	8	3	1.85	1	6.1	*1.0*	2.9	*1.5*	2.9	*1.3*	**592**	98	98	0.00
ORCHIDEA	ORCHID	FLO	8	4	1.34	2	4.1	*1.9*	4.3	*2.3*	5.7	*1.5*	**1874**	17	17	1.07
–> fiore (19)	–> flower															
–> giglio (5)	–> lily															
–> iris (14)	–> iris															
ORECCHINI	EARRINGS	MIX	9	4	1.80	1	4.3	*1.5*	5.7	*1.7*	4.0	*1.8*	**976**	93	93	0.00
ORGANO	ORGAN	INS	6	3	2.43	2	4.3	*2.1*	3.9	*2.0*	5.3	*1.9*	**895**	86	86	0.22
–> pianoforte (5)	–> piano															
ORSO	BEAR	MAM	4	2	2.36	1	3.6	*2.0*	5.2	*1.7*	2.8	*1.4*	**796**	98	98	0.00

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
PAGODA	PAGODA	BUI	6	3	1.18	2	1.8	*1.5*	3.1	*2.1*	7.5	*1.1*	**989**	24	24	1.68
–> albero di natale (10)	–> christmas tree															
–> casa (5)	–> house															
–> costruzione (5)	–> building															
–> cupola (5)	–> cupola															
–> tempio (5)	–> temple															
–> tetto (7)	–> roof															
–> torre (5)	–> tower															
PALMA	PALM TREE	FLO	5	2	2.18	2	4.1	*2.1*	4.5	*2.1*	5.1	*1.8*	**750**	95	95	0.00
PANNOCCHIA	CORN	VEG	10	3	1.08	2	5.4	*1.6*	3.3	*1.6*	4.4	*1.6*	**828**	67	88	0.47
–> mais (21)*	–> panicle															
PANTALONI	PANTS	CLO	9	4	2.39	1	6.8	*0.4*	6.7	*0.5*	2.3	*0.6*	**676**	93	98	0.22
–> calzoni (5)*	–> trousers															
PANTOFOLA	SLIPPER	CLO	9	4	0.70	2	4.7	*2.1*	3.0	*1.6*	3.3	*1.4*	**911**	31	55	1.02
–> ciabatta (24)*	–> slipper															
–> scarpa (40) @	–> shoe															
PANTOFOLE	SLIPPERS	CLO	9	4	1.73	2	4.7	*2.1*	3.0	*1.6*	3.3	*1.4*	**1065**	42	65	1.01
–> ciabatte (23)*	–> slippers															
–> scarpe (30)	–> shoes															
PAPAVERO	POPPY	FLO	8	4	1.11	2	5.6	*1.7*	6.1	*1.3*	4.1	*1.6*	**1241**	48	48	0.71
–> fiore (24)	–> flower															
–> garofano (5)	–> carnation															
PAPPAGALLO	PARROT	BIR	10	4	1.67	1	4.9	*1.7*	5.3	*1.5*	3.5	*1.1*	**1095**	90	90	0.27
–> uccello (7)	–> bird															
PAVONE	PEACOCK	BIR	6	3	1.34	1	4.1	*2.0*	3.6	*1.7*	4.5	*1.2*	**908**	98	98	0.00
PECORA	SHEEP	MAM	6	3	1.89	1	5.3	*1.3*	4.5	*2.0*	2.8	*1.1*	**1045**	98	98	0.00
PELLICANO	PELICAN	BIR	9	4	0.30	2	3.7	*1.9*	3.5	*1.7*	5.4	*1.5*	**1074**	45	45	0.85
–> cicogna (7)	–> stork															
–> fenicottero (5)	–> flamingo															
–> uccello (12)	–> bird															
PENNELLO	BRUSH	MIX	8	3	1.83	1	3.2	*1.7*	5.1	*1.5*	3.9	*1.5*	**1050**	93	93	0.22
–> spazzola (5)	–> clothes–brush															
PENTOLA	POT	HOU	7	3	1.95	2	7.0	*0.0*	6.7	*0.5*	2.7	*0.8*	**744**	98	98	0.00

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
PEPERONE	PEPPER	VEG	8	4	1.56	1	6.4	*1.1*	5.6	*1.5*	4.3	*1.3*	**1103**	95	95	0.00
PERA	PEAR	FRU	4	2	1.75	1	5.8	*1.8*	6.7	*0.6*	2.1	*0.6*	**696**	100	100	0.00
PESCA	PEACH	FRU	5	2	2.12	2	6.2	*1.1*	6.1	*1.4*	2.4	*0.7*	**1144**	88	88	0.27
–> albicocca (7)	–> apricot															
PIANETA	PLANET	MIX	7	3	2.42	2	3.5	*1.8*	6.9	*0.4*	5.9	*1.7*	**935**	45	78	0.96
–> mondo (5)	–> world															
–> satellite (5)	–> satellite															
–> saturno (33)*	–> saturn															
PIANOFORTE	PIANO	INS	10	4	2.31	2	5.4	*2.1*	5.1	*1.6*	4.3	*1.5*	**674**	100	100	0.00
PICCHIO	WOODPECKER	BIR	7	2	0.70	2	4.3	*2.0*	5.6	*1.8*	4.3	*1.2*	**1140**	86	86	0.48
–> colibrì (5)	–> humming-bird															
–> uccello (7)	–> bird															
PICCIONE	PIGEON	BIR	8	3	1.43	2	5.7	*1.9*	4.7	*2.1*	3.7	*1.3*	**1280**	45	55	1.15
–> colomba (12)	–> dove															
–> colombo (10)*	–> dove															
–> uccello (19)	–> bird															
PIGIAMA	PAJAMAS	CLO	7	3	1.51	1	6.1	*1.4*	2.5	*1.5*	2.3	*0.7*	**848**	98	98	0.00
PINGUINO	PENGUIN	BIR	8	3	1.26	1	3.6	*2.2*	3.2	*2.3*	3.3	*1.4*	**904**	95	95	0.00
PIPA	PIPE	MIX	4	2	1.84	1	2.7	*2.3*	4.3	*1.9*	3.6	*1.7*	**737**	100	100	0.00
PIRAMIDE	PYRAMID	BUI	8	4	2.06	1	2.6	*1.5*	2.3	*1.6*	4.7	*1.0*	**878**	98	98	0.00
PISCINA	SWIMMING POOL	BUI	7	3	2.35	1	4.6	*1.2*	4.7	*1.9*	3.4	*1.0*	**1041**	93	93	0.00
PISELLI	PEAS	VEG	7	3	1.81	2	6.2	*1.1*	6.7	*0.6*	3.3	*1.3*	**1010**	71	71	0.76
–> fagioli (5)	–> beans															
–> fagiolini (5)	–> runners															
–> fagiolo (10)	–> bean															
PISTOLA	GUN	WEA	7	3	2.50	1	1.7	*1.6*	6.7	*0.6*	3.3	*1.0*	**662**	100	100	0.00
POLTRONA	ARMCHAIR	FOR	8	3	2.58	1	6.3	*0.7*	6.2	*1.7*	2.7	*0.7*	**742**	88	88	0.43
–> divano (5)	–> couch															
–> sedia (5)	–> chair															
POMODORO	TOMATO	VEG	8	4	2.25	1	6.7	*1.0*	2.7	*1.7*	2.7	*0.8*	**1025**	100	100	0.00
PONTE	BRIDGE	BUI	5	2	2.82	1	3.9	*1.7*	3.2	*2.2*	3.5	*0.9*	**1050**	93	93	0.00
PORRO	LEEK	VEG	5	2	1.46	2	3.6	*2.1*	5.1	*1.9*	6.5	*1.4*	**1758**	2	2	1.49
–> bastone (7)	–> stick															

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
–> legno (5)	–> piece of wood															
–> ramo (45) @	–> branch															
–> ramoscello (5)	–> little branch															
–> sedano (7)	–> celery															
PORTICO	COLONNADE	BUI	7	3	1.79	2	4.7	*1.9*	1.7	*1.1*	5.1	*2.1*	**1081**	55	93	0.87
–> archi (26)*	–> arches															
–> porticato (12)*	–> arcade															
POZZO	WELL	BUI	5	2	2.18	1	3.1	*1.8*	6.4	*0.6*	3.9	*1.2*	**806**	95	95	0.00
PUGNALE	DAGGER	WEA	7	3	1.58	2	1.5	*1.0*	5.1	*1.4*	4.2	*1.4*	**733**	29	29	0.37
–> coltello (69) @	–> knife															
RADIO	RADIO	MIX	5	2	2.98	1	6.9	*0.4*	5.3	*1.4*	3.3	*1.1*	**778**	100	100	0.00
RAPA	TURNIP	VEG	4	2	0.70	2	4.1	*2.4*	4.9	*1.9*	5.3	*1.6*	**1450**	50	50	1.32
–> cipolla (10)	–> onion															
–> patata (17)	–> potato															
–> ravanello (10)	–> radish															
–> verdura (5)	–> vegetable															
RASOIO	RAZOR	MIX	6	3	1.67	2	3.4	*2.4*	3.4	*2.1*	5.1	*1.6*	**1057**	62	62	1.16
–> antenna (5)	–> antenna															
–> lametta (10)	–> razor-blade															
–> martello (14)	–> hammer															
–> rastrello (5)	–> rake															
RASTRELLO	RAKE	MIX	9	3	0.95	1	3.5	*2.0*	5.2	*1.7*	3.9	*1.4*	**870**	93	93	0.00
RIBES	RED CURRENT	FRU	5	2	0.70	2	5.3	*2.2*	5.2	*1.6*	5.5	*2.1*	**612**	12	12	0.32
–> uva (74) @	–> grapes															
RINOCERONTE	RHINOCEROS	MAM	11	5	1.77	2	2.7	*2.0*	3.7	*1.9*	4.6	*1.2*	**750**	93	93	0.27
–> ippopotamo (7)	–> hippopotamus															
RONDINE	SWALLOW	BIR	7	3	1.36	2	6.2	*0.7*	6.7	*0.6*	4.0	*1.2*	**834**	93	93	0.00
ROSA	ROSE	FLO	4	2	2.61	2	6.9	*0.3*	6.7	*0.8*	2.5	*1.1*	**607**	100	100	0.00
ROULOTTE	TRAILER	VEH	8	3	1.51	2	5.1	*1.8*	3.1	*1.6*	5.3	*1.5*	**868**	79	86	0.54
–> camper (7)	–> camper															
–> caravan (7)*	–> caravan															
RUBINETTO	FAUCET	MIX	9	4	1.79	1	6.7	*0.7*	5.5	*2.0*	3.1	*1.5*	**781**	93	93	0.00
SANDALI	SANDALS	CLO	7	3	1.63	1	3.9	*2.1*	3.9	*1.6*	3.0	*1.2*	**1102**	83	83	0.58

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
–> ciabatte (12)	–> slippers															
–> scarpe (5)	–> shoes															
SANDALO	SANDAL	CLO	7	3	1.18	2	3.9	*2.1*	3.9	*1.6*	4.1	*1.9*	**822**	79	79	0.58
–> ciabatta (12)	–> slipper															
–> scarpa (5)	–> shoe															
SASSOFONO	SAXOPHONE	INS	9	4	0.85	2	4.5	*1.9*	5.7	*1.3*	5.9	*1.6*	**912**	74	74	0.66
–> clarinetto (10)	–> clarinet															
–> tromba (10)	–> trumpet															
SCALINATA	STAIRWAY	BUI	9	4	1.48	2	5.3	*1.8*	3.3	*1.3*	2.0	*0.8*	**695**	40	99	1.03
–> scala (26)*	–> stair															
–> scale (33)*	–> stairs															
SCARPA	SHOE	CLO	6	2	1.97	2	5.6	*1.6*	6.1	*1.4*	2.1	*0.8*	**627**	100	100	0.00
SCARPE	SHOES	CLO	6	2	2.74	1	5.6	*1.6*	6.1	*1.4*	1.9	*0.7*	**684**	100	100	0.00
SCATOLA	BOX	REC	7	3	2.46	2	5.3	*1.2*	5.5	*1.8*	2.1	*0.7*	**625**	100	100	0.00
SCIARPA	SCARF	CLO	7	2	1.79	1	6.3	*0.8*	5.9	*1.2*	2.5	*1.0*	**717**	100	100	0.00
SCOIATTOLO	SQUIRREL	MAM	10	4	1.04	2	4.5	*1.7*	4.1	*1.8*	2.9	*1.1*	**705**	93	93	0.00
SCOPA	BRUSH	HOU	5	2	1.40	2	6.9	*0.3*	6.0	*1.5*	2.7	*1.2*	**611**	98	98	0.00
SCRIVANIA	DESK	FOR	9	4	2.48	2	6.2	*1.1*	5.7	*1.7*	3.9	*1.4*	**833**	83	83	0.33
–> tavolo (10)	–> table															
SECCHIO	BUCKET	REC	7	2	1.48	2	4.8	*1.4*	6.1	*0.8*	2.8	*1.1*	**761**	95	95	0.00
SEDANO	CELERY	VEG	6	3	1.63	2	6.0	*1.3*	4.9	*2.1*	4.5	*1.2*	**1071**	76	76	0.48
–> finocchio (7)	–> fennel															
–> prezzemolo (5)	–> parsley															
SEDIA	CHAIR	FOR	5	2	2.41	1	6.8	*0.4*	6.3	*1.0*	2.0	*0.8*	**555**	100	100	0.00
SGABELLO	STOOL	FOR	8	3	1.65	2	4.7	*1.9*	4.1	*1.6*	3.1	*1.5*	**736**	79	79	0.43
–> sedia (5)	–> chair															
–> seggiolino (5)	–> seat															
SLITTA	SLED	VEH	6	2	1.51	2	3.3	*2.1*	1.9	*1.1*	3.3	*1.7*	**849**	88	88	0.00
SOMMERGIBILE	SUBMARINE	VEH	12	5	1.04	2	1.8	*1.7*	2.1	*1.4*	5.5	*1.3*	**1270**	64	71	0.60
–> dirigibile (10)	–> dirigible															
–> sottomarino (7)*	–> submarine															
SPADA	SWORD	WEA	5	2	2.35	1	1.7	*1.2*	4.7	*2.0*	2.9	*1.1*	**821**	95	95	0.00
STIVALE	BOOT	CLO	7	3	1.20	2	4.3	*2.0*	4.3	*2.0*	3.5	*1.4*	**651**	100	100	0.00

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
STIVALI	BOOTS	CLO	7	3	2.08	1	4.3	*2.0*	4.3	*2.0*	3.3	*0.8*	**709**	100	100	0.00
STRUZZO	OSTRICH	BIR	7	2	1.28	2	3.3	*1.9*	2.9	*1.2*	4.9	*1.1*	**1012**	83	83	0.00
SVEGLIA	CLOCK	MIX	7	2	1.93	1	6.9	*0.3*	6.0	*1.1*	3.6	*1.2*	**710**	90	90	0.27
–> orologio (7)	–> watch															
TAMBURO	DRUM	INS	7	3	1.86	1	4.3	*1.7*	5.1	*1.4*	3.3	*1.3*	**790**	95	95	0.00
TANICA	JERRY CAN	REC	6	3	0.70	2	4.1	*1.8*	4.5	*1.9*	6.0	*1.3*	**853**	76	76	0.22
–> botte (5)	–> barrel															
TAVOLO	TABLE	FOR	6	3	2.99	1	6.9	*0.3*	6.6	*0.5*	2.1	*0.7*	**609**	98	98	0.00
TAVOLOZZA	PALETTE	MIX	9	4	1.52	2	3.1	*1.8*	3.3	*2.1*	5.9	*1.4*	**1155**	50	50	0.49
–> tagliere (24)	–> chopping-board															
TAZZA	CUP	HOU	5	2	2.17	2	7.0	*0.0*	6.3	*1.0*	2.5	*1.1*	**685**	90	90	0.00
TEIERA	TEAPOT	REC	6	3	1.32	2	4.7	*1.6*	3.7	*1.6*	5.1	*1.5*	**857**	79	79	0.48
–> caraffa (7)	–> pitcher															
–> vaso (5)	–> vase															
TENAGLIA	PINCERS	MIX	8	3	1.34	2	3.7	*1.8*	6.0	*1.4*	5.7	*1.6*	**815**	52	52	0.53
–> pinza (33)	–> pliers															
TENDA	TENT	MIX	5	2	1.95	1	3.5	*2.3*	1.8	*1.0*	3.4	*1.1*	**925**	93	98	0.22
–> teepee (5)*	–> teepee															
TIGRE	TIGER	MAM	5	2	2.17	2	4.1	*2.4*	5.7	*1.6*	3.0	*1.4*	**660**	95	95	0.00
TOPO	MOUSE	MAM	4	2	2.59	1	5.5	*1.6*	2.5	*1.4*	2.6	*1.1*	**650**	98	98	0.00
TORRE	TOWER	BUI	5	2	2.58	1	3.9	*1.4*	4.7	*1.5*	3.9	*1.4*	**809**	90	90	0.27
–> castello (7)	–> castle															
TRAM	TRAM CAR	VEH	4	1	2.13	2	4.9	*1.8*	4.6	*2.0*	4.9	*2.1*	**993**	67	67	0.51
–> treno (26)	–> train															
TRAPANO	DRILL	MIX	7	3	1.40	1	3.3	*2.1*	6.2	*0.9*	4.1	*1.6*	**825**	95	95	0.00
TRATTORE	TRACTOR	VEH	8	3	1.20	1	5.5	*1.9*	3.1	*1.4*	3.0	*1.6*	**787**	95	95	0.00
TRENO	TRAIN	VEH	5	2	2.78	1	6.5	*1.4*	6.1	*1.2*	2.5	*1.1*	**836**	100	100	0.00
TRICICLO	TRICYCLE	VEH	8	3	1.08	1	5.3	*1.9*	2.7	*1.9*	2.2	*1.4*	**839**	98	98	0.00
TROMBA	TRUMPET	INS	6	2	1.88	1	4.5	*2.1*	5.5	*1.7*	3.4	*1.4*	**814**	95	95	0.00
TUCANO	TOUCAN	BIR	6	3	0.85	2	3.3	*2.2*	4.9	*2.0*	6.1	*2.1*	**1371**	60	60	0.54
–> pappagallo (7)	–> sparrow															
–> pellicano (7)	–> pelican															
TULIPANO	TULIP	FLO	8	4	0.85	2	6.1	*1.4*	6.1	*0.7*	4.6	*1.7*	**1160**	71	71	0.48

APPENDIX A (Continued)

ITALIAN	ENGLISH	CAT	LET	SYL	FRQ	S	FAM	*SD*	TYP	*SD*	AoA	*SD*	**RT**	NA	CA	H
–> fiore (5)	–> flower															
–> rosa (7)	–> rose															
UVA	GRAPES	FRU	3	2	2.28	2	6.4	*1.5*	6.3	*0.9*	2.6	*1.2*	**577**	93	100	0.27
–> grappolo (7)*	–> bunch															
VESTITO	DRESS	CLO	7	3	2.41	2	3.5	*2.1*	5.7	*1.8*	2.0	*0.8*	**700**	83	97	0.40
–> abito (14)*	–> garment															
VIOLA	VIOLET	FLO	5	2	1.76	2	4.6	*2.2*	5.9	*1.4*	3.6	*1.7*	**1196**	29	34	1.02
–> ciclamino (12)	–> cyclamen															
–> fiore (17)	–> flower															
–> violetta (5)*	–> little violet															
VIOLINO	VIOLIN	INS	7	3	2.15	2	4.5	*1.6*	6.3	*1.0*	4.5	*0.9*	**763**	86	86	0.33
–> chitarra (10)	–> guitar															
ZAINO	BACKPACK	MIX	5	2	1.93	2	4.8	*1.7*	6.6	*0.7*	4.5	*1.2*	**1307**	90	90	0.00
ZATTERA	RAFT	VEH	7	3	1.23	2	2.8	*2.0*	1.3	*0.6*	4.8	*0.9*	**894**	93	93	0.00
ZEBRA	ZEBRA	MAM	5	2	1.20	1	3.8	*1.7*	4.8	*1.9*	3.6	*1.4*	**761**	95	95	0.22
–> giraffa (5)	–> giraffe															
ZUCCA	PUMPKIN	VEG	5	2	1.41	2	5.7	*1.5*	4.7	*2.0*	4.8	*1.9*	**965**	86	86	0.22
–> pomodoro (5)	–> tomato															

APPENDIX B

List of the Stimuli Common to Our Study and That of Snodgrass and Vanderwart (1980) (See the Text for Details)

LANGUAGE		FAMILIARITY					AGE OF ACQUISITION				H STATISTIC					FREQUENCY			
ITALIAN	ENGLISH	FAM	FAMi	FAMa	FAMf	FAMs	AoA	AoAi	AoAa	AoAf	H	Hi	Ha	Hf	Hs	FRQ	FRQa	FRQf	FRQs
FISARMONICA	ACCORDION	4.20	2.17	2.15	1.63	1.55	4.80	5.65	6.24	3.08	0.22	0.43	0.18	0.00	0.16	1.38	0.30	0.73	0.95
AEREO	AIRPLANE	5.73	3.22	3.78	2.63	2.43	3.47	4.03	3.49	1.92	0.00	0.69	1.77	0.29	0.00	2.86	1.08	1.71	1.91
MELA	APPLE	6.33	4.32	3.98	4.40	4.33	1.73	2.15	2.55	1.46	0.00	0.00	0.16	0.00	0.02	2.27	1.00	1.50	1.38
CARCIOFO	ARTICHOKE	6.00	3.30	2.29	2.13	2.44	4.07	5.07	6.28	3.04	0.00	0.00	1.54	0.23	0.30	1.81	0.00	0.39	0.48
ASPARAGO	ASPARAGUS	5.67	2.60	2.68	2.37	2.63	5.13	6.25	6.03	3.19	0.58	0.64	1.27	0.16	0.58	0.70	0.30	0.42	0.30
ASCIA	AXE	2.80	2.37	2.28	1.57	1.86	5.00	5.95	4.97	2.64	0.85	1.48	0.53	0.00	0.04	1.26	1.11	1.01	1.18
BANANA	BANANA	6.00	4.05	3.65	3.87	3.84	2.33	2.53	2.76	1.58	0.00	0.00	0.00	0.00	0.00	1.68	0.70	0.57	0.85
BOTTE	BARREL	3.80	2.17	2.02	1.27	2.16	3.87	4.80	5.37	3.15	0.00	0.36	0.00	0.79	1.01	1.84	1.40	1.04	0.90
ORSO	BEAR	3.60	1.82	1.98	1.60	1.51	2.80	3.88	3.56	1.62	0.00	0.32	0.53	0.00	0.04	2.36	1.76	1.05	1.67
LETTO	BED	6.73	4.77	4.72	4.93	4.78	1.80	2.15	2.42	1.24	0.00	0.48	0.00	0.51	0.04	3.01	2.11	2.31	2.62
CINTURA	BELT	5.93	4.30	4.12	4.13	4.43	3.67	3.95	3.95	2.42	0.22	1.31	0.16	0.41	0.13	2.12	1.48	1.41	1.67
BICICLETTA	BICYCLE	6.87	3.80	3.78	3.37	3.61	2.27	3.45	3.74	1.80	0.22	0.00	0.53	0.41	0.18	2.45	0.78	0.73	1.41
STIVALE	BOOT	4.33	3.80	3.38	3.73	4.08	3.53	3.55	3.75	2.04	0.00	1.44	0.69	0.40	0.06	1.20	1.15	1.35	1.00
BOTTIGLIA	BOTTLE	6.33	4.60	3.72	4.20	3.88	1.87	2.92	3.58	1.92	0.00	0.00	0.28	0.00	0.00	2.40	1.89	1.62	2.06
SCATOLA	BOX	5.33	3.72	2.88	2.97	3.49	2.13	3.70	2.69	1.65	0.00	0.00	0.80	0.26	0.00	2.46	1.85	1.73	2.08
SCOPA	BRUSH	6.93	4.00	3.80	4.23	3.98	2.67	3.38	3.08	1.77	0.00	0.27	0.88	0.15	0.18	1.40	1.65	1.01	1.23
CANDELA	CANDLE	6.33	3.42	3.08	3.60	4.84	2.73	3.78	4.10	1.96	0.00	0.00	0.00	0.00	0.00	1.98	1.28	1.28	1.74
CANNONE	CANNON	1.67	1.70	1.52	1.07	n.a.	4.60	4.55	n.a.	3.08	0.00	0.00	0.49	0.16	n.a.	1.98	0.90	1.66	n.a.
AUTOMOBILE	CAR	7.00	4.27	4.70	4.53	4.43	2.80	3.50	2.73	1.40	1.34	1.48	1.08	0.15	0.06	2.60	2.44	2.08	2.48
CAROTA	CARROT	6.73	3.55	3.55	3.90	3.33	2.93	3.80	3.16	1.58	0.00	0.00	0.00	0.00	0.02	1.72	0.30	0.62	1.04
GATTO	CAT	6.47	3.85	4.22	3.63	3.06	2.00	2.45	2.50	1.35	0.00	0.16	0.00	0.00	0.00	2.58	1.38	1.65	2.15
SEDANO	CELERY	6.00	3.15	3.40	2.00	2.73	4.53	5.35	5.00	3.46	0.48	1.35	0.83	0.65	1.27	1.63	0.70	0.21	0.30
SEDIA	CHAIR	6.80	4.57	4.58	4.93	2.10	2.00	2.65	2.92	1.38	0.00	0.00	0.00	0.00	0.00	2.41	1.83	1.92	2.12
CILIEGIA	CHERRY	6.13	3.50	3.38	3.13	3.06	2.93	3.17	3.79	2.00	0.37	0.16	0.52	0.29	0.09	1.04	0.85	0.90	n.a.
GALLINA	CHICKEN	5.80	2.67	2.42	2.30	2.45	2.40	3.10	3.13	1.50	0.00	0.48	1.35	0.47	0.09	2.10	1.58	1.36	1.58
CHIESA	CHURCH	5.20	3.25	3.38	2.97	3.49	2.87	3.25	3.85	2.27	0.00	0.00	0.44	0.15	0.00	3.22	2.54	2.25	2.34
SVEGLIA	CLOCK	6.93	4.17	4.38	4.73	3.82	3.60	3.72	3.47	2.69	0.27	0.78	0.16	1.01	0.10	1.93	1.32	1.17	2.16
PANNOCCHIA	CORN	5.43	3.12	3.50	3.10	2.43	4.40	5.30	3.50	2.60	0.47	1.48	0.88	0.56	0.21	1.08	1.54	0.93	1.46
DIVANO	COUCH	6.67	4.35	4.40	4.40	4.45	2.47	4.00	3.63	2.16	0.00	0.16	0.92	0.34	0.28	2.22	1.11	1.00	1.83
MUCCA	COW	6.13	2.70	2.42	2.63	3.63	2.40	3.10	3.11	1.60	0.00	0.35	0.44	0.00	0.00	1.70	1.48	1.56	1.40
TAZZA	CUP	7.00	4.40	4.40	4.83	3.75	2.47	3.78	2.68	2.16	0.00	1.35	0.44	0.15	0.09	2.17	1.66	1.35	1.67
CERVO	DEER	4.93	0.75	2.22	1.87	1.51	3.93	4.85	3.98	2.88	0.33	0.75	1.44	0.29	0.56	1.99	1.15	0.68	0.95
SCRIVANIA	DESK	6.20	4.47	4.32	4.60	4.80	3.87	5.20	3.92	2.65	0.33	0.48	0.32	0.00	0.14	2.48	1.82	2.03	1.46
CANE	DOG	6.60	4.20	4.60	3.80	4.00	1.87	2.05	2.23	1.19	0.00	0.00	0.00	0.00	0.00	2.78	1.88	2.09	2.35
ASINO	DONKEY	5.47	1.82	1.88	2.07	1.88	2.53	3.78	4.35	2.08	0.74	0.16	0.87	0.00	0.18	1.85	0.30	1.37	1.57
VESTITO	DRESS	3.53	3.60	3.62	3.40	3.76	2.00	3.88	3.32	1.46	0.40	0.87	0.00	0.00	0.11	2.41	1.83	2.00	2.23

APPENDIX B (Continued)

TAMBURO	DRUM	4.33	2.50	2.60	1.57	4.04	3.33	4.03	4.27	2.15	0.00	0.35	0.00	0.00	0.05	1.86	1.08	1.20	1.36
ANATRA	DUCK	5.20	2.65	2.75	2.50	2.41	3.87	3.53	2.93	1.85	0.91	1.47	0.28	0.29	0.04	1.41	1.00	1.15	1.04
AQUILA	EAGLE	4.07	1.80	2.42	1.50	1.82	4.07	4.85	5.08	2.73	0.71	1.07	1.14	0.54	0.12	2.28	0.78	1.09	1.48
ELEFANTE	ELEPHANT	4.20	2.10	2.35	1.40	1.43	2.67	3.72	3.66	2.04	0.00	0.00	0.00	0.00	0.00	1.85	0.90	0.90	1.28
FORCHETTA	FORK	6.80	4.50	4.78	4.90	4.35	1.80	2.60	3.03	1.42	0.00	0.00	0.00	0.00	0.00	1.67	1.18	0.84	1.11
GIRAFFA	GIRAFFE	4.00	2.07	1.80	1.30	1.53	2.87	4.05	4.21	2.12	0.00	0.16	0.32	0.00	0.00	1.00	0.00	0.34	0.48
BICCHIERE	GLASS	7.00	4.50	4.78	4.97	2.35	1.80	2.15	2.90	1.23	0.00	0.00	0.16	0.00	0.00	2.53	2.00	2.00	2.08
GUANTO	GLOVE	5.33	3.42	3.38	3.97	3.94	2.93	3.78	3.33	2.00	0.00	0.00	0.16	0.00	0.11	1.76	1.00	1.37	1.40
UVA	GRAPES	6.36	3.92	3.65	3.60	2.31	2.60	3.17	3.50	2.04	0.27	0.71	0.38	0.29	0.30	2.28	0.90	1.10	1.26
CHITARRA	GUITAR	6.00	3.47	3.58	2.90	3.14	4.27	5.10	4.32	2.50	0.00	0.00	0.16	0.15	0.00	2.04	1.30	0.73	1.58
PISTOLA	GUN	1.73	1.77	2.68	1.53	1..51	3.33	4.32	4.05	2.81	0.00	0.27	1.09	0.73	0.19	2.50	2.08	1.36	1.71
ARPA	HARP	3.87	1.85	1.88	1.67	1.63	5.73	6.55	6.08	3.42	0.00	0.16	0.00	0.15	0.09	1.40	0.30	0.79	0.70
CAPPELLO	HAT	2.80	3.52	3.18	2.83	4.67	2.47	3.12	2.90	1.62	0.00	1.75	0.16	0.00	0.10	2.58	1.76	1.95	1.95
ELICOTTERO	HELICOPTER	4.80	2.62	2.55	1.97	1.67	4.00	5.75	4.93	2.72	0.00	0.00	0.32	0.00	0.04	2.15	0.30	0.03	0.70
CAVALLO	HORSE	5.67	2.92	3.55	2.63	2.57	2.60	3.03	3.53	1.54	0.00	0.00	0.00	0.00	0.00	2.94	2.07	2.13	2.27
CASA	HOUSE	6.33	3.50	4.38	4.47	4.36	1.67	1.92	2.41	1.38	0.00	0.43	0.32	0.00	0.13	3.94	2.77	2.71	3.25
CANGURO	KANGAROO	3.73	1.65	1.92	1.07	1.31	3.87	4.78	4.30	2.88	0.00	0.00	0.00	0.00	0.05	0.95	0.00	0.21	0.48
BOLLITORE	KETTLE	3.27	3.12	3.80	3.60	4.80	5.87	5.97	5.35	3.31	0.62	1.29	1.66	1.01	0.18	0.70	0.60	0.48	0.70
COLTELLO	KNIFE	6.87	4.72	4.45	4.97	4.69	2.33	3.17	3.18	1.65	0.00	0.16	0.60	0.00	0.13	2.40	1.89	1.52	1.68
LAMPADA	LAMP	5.47	4.45	4.20	4.80	3.92	2.87	3.92	3.75	2.04	0.43	1.49	0.44	0.00	0.00	2.19	1.28	1.86	1.74
FOGLIA	LEAF	6.27	3.90	4.30	3.60	3.96	1.93	2.58	2.75	1.54	0.27	0.79	0.53	1.09	0.09	2.17	1.11	2.02	1.86
LIMONE	LEMON	5.07	4.10	3.25	3.63	3.71	2.73	3.33	3.60	1.88	0.00	0.00	0.00	0.00	0.00	2.10	1.28	0.78	1.08
LEONE	LION	4.33	1.87	2.00	1.50	1.53	2.40	3.58	3.75	1.69	0.00	0.00	0.37	0.00	0.00	2.61	1.26	1.28	1.75
TOPO	MOUSE	5.53	2.22	2.45	2.27	2.86	2.60	3.10	3.35	1.62	0.00	0.00	0.75	0.29	0.26	2.59	1.04	1.06	1.56
FUNGO	MUSHROOM	6.07	2.95	2.88	2.90	1.53	2.93	4.10	4.45	2.35	0.00	0.00	0.00	0.00	0.18	2.02	0.48	0.87	n.a.
CIPOLLA	ONION	6.13	3.42	3.32	2.87	3.29	3.53	4.53	4.08	2.58	0.33	0.29	0.00	0.33	0.06	1.96	1.20	0.85	1.56
ARANCIA	ORANGE	5.67	4.45	3.34	4.03	3.82	2.71	3.22	3.23	1.62	0.43	0.77	0.53	0.29	0.49	1.75	1.38	1.10	1.53
STRUZZO	OSTRICH	3.27	1.72	1.52	1.10	1.41	4.87	5.97	5.55	2.88	0.00	0.28	0.35	0.15	0.49	1.28	0.00	0.47	0.95
GUFO	OWL	4.07	2.05	2.22	1.67	1.82	4.07	4.47	4.08	2.48	0.33	0.71	0.00	0.52	0.19	1.90	0.48	0.63	1.38
PANTALONI	PANTS	6.80	4.75	4.55	4.87	4.88	2.27	2.92	2.83	1.54	0.22	0.00	0.53	0.15	0.21	2.39	1.00	1.47	1.79
PESCA	PEACH	6.20	3.80	2.90	2.87	3.65	2.40	3.45	3.74	2.12	0.27	1.12	1.19	1.12	0.68	2.12	0.60	1.12	n.a.
PAVONE	PEACOCK	4.13	1.85	2.05	1.37	1.73	4.47	5.28	4.90	3.08	0.00	0.00	0.81	0.00	0.07	1.34	0.48	0.76	0.48
PERA	PEAR	5.80	4.12	3.55	3.37	4.02	2.07	2.50	3.68	1.81	0.00	0.00	0.00	0.00	0.00	1.75	0.85	0.80	1.32
PINGUINO	PENGUIN	3.60	2.05	1.70	1.37	1.39	3.27	4.95	4.74	2.77	0.00	0.00	0.38	0.15	0.00	1.26	0.00	0.15	0.85
PEPERONE	PEPPER	6.40	3.42	2.92	2.47	3.06	4.33	5.07	4.78	3.23	0.00	0.22	1.07	0.00	0.14	1.56	1.15	0.18	0.85
PIANOFORTE	PIANO	5.40	2.75	3.42	3.10	2.16	4.27	5.00	4.28	2.00	0.00	0.84	0.70	0.00	0.10	2.31	1.59	1.61	1.79
MAIALE	PIG	5.40	2.27	2.18	1.83	2.27	2.53	3.38	3.15	1.76	0.00	0.27	0.60	0.60	0.07	2.08	0.95	1.28	1.54
ANANAS	PINEAPPLE	4.87	3.37	2.95	2.73	2.69	4.47	5.07	4.89	2.46	0.00	0.00	0.00	0.00	0.00	1.36	1.00	0.32	0.85

APPENDIX B (Continued)

CARAFFA	PITCHER	5.07	3.97	3.50	3.97	3.98	4.87	4.85	4.82	3.65	1.17	0.91	0.54	1.34	0.11	1.08	1.34	0.20	1.20
ZUCCA	PUMPKIN	5.73	2.47	3.08	1.90	2.26	4.80	4.70	4.00	2.77	0.22	0.00	0.00	0.29	0.25	1.41	0.48	0.27	0.85
CONIGLIO	RABBIT	6.13	2.62	2.95	2.67	2.31	2.80	2.90	2.80	1.65	0.00	0.00	0.00	0.00	0.00	2.07	1.08	1.32	1.26
RINOCERONTE	RHINOCEROS	2.67	1.80	1.52	1.17	4.73	4.60	5.18	5.15	2.96	0.27	0.19	0.56	0.00	0.20	1.77	0.60	0.32	0.48
GALLO	ROOSTER	6.40	2.97	2.22	2.40	2.45	2.47	2.95	4.16	1.85	0.27	0.57	1.21	0.00	0.53	2.29	0.60	1.29	1.53
FORBICE	SCISSORS	5.93	4.10	3.98	4.07	1.43	3.00	3.88	3.79	2.00	0.00	0.70	0.16	0.34	0.12	1.53	0.30	0.92	1.00
PECORA	SHEEP	5.33	2.35	1.85	1.83	2.28	2.80	3.38	3.60	1.65	0.00	0.63	0.95	0.00	0.30	1.89	1.38	1.37	1.04
CAMICIA	SHIRT	6.13	4.50	4.56	4.37	4.69	2.93	3.72	3.00	2.04	0.00	0.77	0.00	0.00	0.07	2.62	1.45	1.68	2.09
SCARPA	SHOE	5.60	4.65	4.62	4.93	4.75	2.07	2.88	2.72	1.38	0.00	0.16	0.28	0.00	0.00	1.97	1.18	1.18	1.53
GONNA	SKIRT	4.00	3.60	3.64	3.23	3.75	2.53	3.00	3.84	1.65	0.00	0.32	0.16	0.00	0.05	2.17	1.34	1.36	1.88
SLITTA	SLED	3.27	1.70	2.80	1.90	3.75	3.27	4.93	4.68	2.81	0.00	1.09	0.00	0.26	0.59	1.51	0.00	0.13	n.a.
CALZINO	SOCK	5.93	4.30	4.52	4.97	4.51	2.87	3.05	2.44	1.58	0.00	0.83	0.00	0.00	0.00	0.85	0.70	0.95	0.85
CUCCHIAIO	SPOON	6.80	4.72	4.50	4.93	4.67	2.00	2.72	2.45	1.35	0.00	0.57	0.16	0.00	0.16	2.02	0.85	0.00	0.90
SCOIATTOLO	SQUIRREL	4.47	2.25	3.82	1.83	1.53	2.93	4.22	3.89	2.42	0.00	0.00	0.17	0.00	0.02	1.04	0.30	0.77	1.65
SGABELLO	STOOL	4.67	3.52	3.08	3.80	3.25	3.13	4.72	4.26	2.20	0.43	0.19	0.16	0.00	1.04	1.65	0.95	0.93	1.23
FRAGOLA	STRAWBERRY	6.00	3.62	3.20	3.20	3.37	2.53	2.97	3.68	1.81	0.00	0.00	0.17	0.00	0.00	1.56	0.00	0.85	0.95
CIGNO	SWAN	5.47	2.22	1.97	1.87	1.96	3.53	4.62	4.30	2.65	0.27	0.48	0.64	0.15	0.33	1.71	0.60	0.96	1.04
MAGLIONE	SWEATER	6.67	4.62	4.48	4.87	4.94	2.60	3.75	3.45	2.31	0.00	1.24	0.98	0.29	0.05	1.62	1.18	0.32	1.32
TAVOLO	TABLE	6.93	4.60	4.35	4.83	4.78	2.07	2.47	2.58	1.35	0.00	0.43	0.32	0.00	0.04	2.99	2.30	2.41	2.67
CRAVATTA	TIE	3.27	2.95	3.80	3.33	2.55	3.93	4.85	4.42	2.38	0.00	0.00	0.89	0.00	0.00	2.20	1.38	0.42	1.72
TIGRE	TIGER	4.07	2.07	2.10	1.30	3.24	3.00	4.32	3.95	2.31	0.00	0.16	0.33	0.00	0.40	2.17	0.90	0.80	1.18
POMODORO	TOMATO	6.67	3.80	3.78	4.27	4.04	2.67	2.80	3.47	1.65	0.00	0.00	0.80	0.15	0.04	2.25	0.70	0.65	1.08
TRENO	TRAIN	6.53	4.22	4.15	3.97	3.06	2.53	3.37	3.45	1.73	0.00	0.35	0.74	0.67	0.07	2.78	1.92	2.23	2.05
CAMION	TRUCK	6.20	2.72	4.02	3.23	3.43	3.07	4.03	3.08	1.62	0.22	1.11	0.53	0.00	0.04	2.29	1.76	1.35	1.41
TROMBA	TRUMPET	4.47	2.30	2.60	1.90	1.53	3.40	4.97	5.39	2.35	0.00	0.41	1.10	0.29	0.13	1.88	0.90	1.11	1.00
OMBRELLO	UMBRELLA	6.07	3.80	3.95	3.43	3.47	2.93	3.58	3.80	1.88	0.00	0.16	0.00	0.47	0.02	1.85	0.95	1.05	1.56
VIOLINO	VIOLIN	4.53	2.40	2.68	2.03	1.82	4.47	5.88	5.50	2.54	0.33	0.00	0.72	0.15	0.51	2.15	1.08	1.17	1.26
ANGURIA	WATERMELON	5.93	3.77	3.05	2.53	2.00	3.20	4.47	4.08	2.81	0.27	2.12	0.55	0.47	0.16	1.08	0.30	0.23	0.48
POZZO	WELL	3.13	1.97	1.45	1.90	n.a.	3.87	4.97	n.a.	2.77	0.00	0.00	0.60	0.00	n.a.	2.18	2.95	1.39	n.a.
MULINO	WINDMILL	2.00	2.07	1.80	1.57	1.65	3.87	5.57	n.a.	2.31	0.00	0.88	0.16	0.00	0.09	2.10	0.30	1.28	1.57
ZEBRA	ZEBRA	3.80	1.92	1.60	1.07	n.a.	3.60	4.55	n.a.	2.46	0.22	0.00	0.00	0.00	n.a.	1.20	0.30	0.42	n.a.

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