

**Supplementary Table 1.** Word pairs used in the semantic decision task.

Prime	Part of speech	Target	Part of speech	Recency	Relatedness
familia (family)	NOUN	TÍO (UNCLE)	NOUN	L1	Related
pantano (swamp)	NOUN	COCODRILO (CROCODILE)	NOUN	L1	Related
biología (biology)	NOUN	VIDA (LIFE)	NOUN	L1	Related
mascota (pet)	NOUN	CACHORRO (PUPPY)	NOUN	L1	Related
cráneo (skull)	NOUN	CABEZA (HEAD)	NOUN	L1	Related
durazno (peach)	NOUN	CIRUELA (PLUM)	NOUN	L1	Related
víbora (viper)	NOUN	SERPIENTE (SNAKE)	NOUN	L1	Related
vida (life)	NOUN	SALUD (HEALTH)	NOUN	L1	Related
pata (leg)	NOUN	PIE (FOOT)	NOUN	L1	Related
durazno (peach)	NOUN	PERA (PEAR)	NOUN	L1	Related
abuela (grandmother)	NOUN	MADRE (MOTHER)	NOUN	L1	Related
vida (life)	NOUN	CUERPO (BODY)	NOUN	L1	Related
gallina (hen)	NOUN	POLLO (CHICKEN)	NOUN	L1	Related
tiempo (time)	NOUN	RELOJ (CLOCK)	NOUN	L1	Related
rayas (stripes)	NOUN	CEBRA (ZEBRA)	NOUN	L1	Related
potencia (power)	NOUN	ENERGÍA (ENERGY)	NOUN	L1	Related
estancia (rural estate)	NOUN	CAMPO (FIELD)	NOUN	L1	Related
mujer (woman)	NOUN	DAMA (LADY)	NOUN	L1	Related
asado (roast)	NOUN	PARRILLA (GRILL)	NOUN	L1	Related
pez (fish)	NOUN	ATÚN (TUNA)	NOUN	L1	Related
león (lion)	NOUN	TIGRE (TIGER)	NOUN	L1	Related
cereal (cereal)	ADJECTIVE	AVENA (OATS)	NOUN	L1	Related
persona (person)	NOUN	HUMANO (HUMAN)	ADJECTIVE	L1	Related
maíz (corn)	NOUN	TRIGO (WHEAT)	NOUN	L1	Related
rostro (face)	NOUN	CARA (FACE)	NOUN	L1	Related
dedo (finger)	NOUN	MANO (HAND)	NOUN	L1	Related
padres (parents)	NOUN	FAMILIA (FAMILY)	NOUN	L1	Related
compañía (company)	NOUN	AMIGO (FRIEND)	NOUN	L1	Related
calamar (squid)	NOUN	PULPO (OCTOPUS)	NOUN	L1	Related
codo (elbow)	NOUN	BRAZO (ARM)	NOUN	L1	Related
laguna (lagoon)	NOUN	LAGO (LAKE)	NOUN	L1	Related
bosque (forest)	NOUN	SELVA (JUNGLE)	NOUN	L1	Related
rojo (red)	NOUN	MANZANA (APPLE)	NOUN	L1	Related
lana (wool)	NOUN	OVEJA (SHEEP)	NOUN	L1	Related
plaza (square)	NOUN	PARQUE (PARK)	NOUN	L1	Related
halcón (falcon)	NOUN	ÁGUILA (EAGLE)	NOUN	L1	Related
camiseta (shirt)	NOUN	REMERA (T-SHIRT)	NOUN	L1	Related
bebé (baby)	NOUN	HIJO (SON)	NOUN	L1	Related
joroba (hump)	NOUN	CAMELLO (CAMEL)	NOUN	L1	Related
pez (fish)	NOUN	RÍO (RIVER)	NOUN	L1	Related
corre (run)	VERB	OGUATA (WALK)	VERB	L2 Recent	Related
chanchó (pig)	NOUN	KURE (PORK)	NOUN	L2 Recent	Related
lento (slow)	ADJECTIVE	KARUMBE (TURTLE)	NOUN	L2 Recent	Related
caminar (walk)	VERB	OÑANI (RUN)	VERB	L2 Recent	Related
gallina (hen)	NOUN	RUPI'A (EGG)	NOUN	L2 Recent	Related

Prime	Part of speech	Target	Part of speech	Recency	Relatedness
picadura (sting)	NOUN	ÑATI'Ū (MOSQUITO)	NOUN	L2 Recent	Related
ave (bird)	NOUN	YPE (DUCK)	NOUN	L2 Recent	Related
campo (field)	NOUN	KAVAJU (HORSE)	NOUN	L2 Recent	Related
palomitas (popcorn)	NOUN	AVATI (CORN)	NOUN	L2 Recent	Related
hormiguero (anthill)	NOUN	TAHÝI (ANT)	NOUN	L2 Recent	Related
animal (animal)	NOUN	JAGUA (DOG)	NOUN	L2 Recent	Related
trompa (snout)	NOUN	MBOREROTOCU (ELEFANT)	NOUN	L2 Recent	Related
pájaro (bird)	NOUN	OVEVE (FLY)	VERB	L2 Recent	Related
batata (sweet potato)	ADJECTIVE	YVY'A (POTATO)	NOUN	L2 Recent	Related
salmón (salmon)	NOUN	PIRA (FISH)	NOUN	L2 Recent	Related
arroz (rice)	NOUN	TEMBI'U (MEAL)	NOUN	L2 Recent	Related
comida (food)	NOUN	AVATI'I (RICE)	NOUN	L2 Recent	Related
comer (eat)	VERB	SEVÓI (ONION)	NOUN	L2 Recent	Related
plátano (plantain)	NOUN	PAKOVA (BANANA)	NOUN	L2 Recent	Related
morder (bite)	VERB	OÑARÖ (BARK)	VERB	L2 Recent	Related
cuchara (spoon)	NOUN	TEMBIPORU (UTENSIL)	NOUN	L2 Recent	Related
zumbido (buzz)	NOUN	MBERU (FLY)	NOUN	L2 Recent	Related
sabor (flavor)	NOUN	HE'Ĕ (SWEET)	ADJECTIVE	L2 Recent	Related
ave (bird)	NOUN	GUYRA (BIRD)	NOUN	L2 Recent	Related
salado (salty)	NOUN	JUKY (SALT)	NOUN	L2 Recent	Related
bicho (bug)	NOUN	ÑANDU (SPIDER)	NOUN	L2 Recent	Related
cocido (cooked)	NOUN	PÝRA (RAW)	ADJECTIVE	L2 Recent	Related
bife (steak)	NOUN	SO'O (MEAT)	NOUN	L2 Recent	Related
carne (meat)	NOUN	RYGUASU (CHICKEN)	NOUN	L2 Recent	Related
caldo (broth)	NOUN	JUKYSY (SOUP)	NOUN	L2 Recent	Related
poseer (own)	VERB	AREKO (HAVE)	VERB	L2 Recent	Related
dulce (sweet)	ADJECTIVE	EIRATĂ (SUGAR)	NOUN	L2 Recent	Related
saltarín (jumping)	ADJECTIVE	TAPITI (RABBIT)	NOUN	L2 Recent	Related
selva (jungle)	NOUN	KA'I (MONKEY)	NOUN	L2 Recent	Related
felino (feline)	ADJECTIVE	MBARAKAJA (CAT)	NOUN	L2 Recent	Related
rata (rat)	NOUN	ANGUJA (MOUSE)	NOUN	L2 Recent	Related
vender (sell)	VERB	AJOGUA (BUY)	VERB	L2 Recent	Related
comida (food)	NOUN	AMBOJY (COOK)	VERB	L2 Recent	Related
mascota (pet)	NOUN	MYMBA (ANIMAL)	NOUN	L2 Recent	Related
vaca (cow)	NOUN	VAKAME (BULL)	NOUN	L2 Recent	Related
sandía (watermelon)	NOUN	MERÖ (MELON)	NOUN	L2 Recent	Related
hombre (man)	NOUN	YVYPÓRA (PEOPLE)	NOUN	L2 Remote	Related
decir (say)	VERB	OÑE'Ĕ (SPEAK)	VERB	L2 Remote	Related
gratitud (gratitude)	NOUN	AGUYJE (THANK)	VERB	L2 Remote	Related
biblioteca (library)	NOUN	ARANDUKA (BOOK)	NOUN	L2 Remote	Related
señor (mister)	NOUN	KUIMBA'E (MAN)	NOUN	L2 Remote	Related
correo (mail)	NOUN	KUATIAÑE'Ĕ (LETTER)	NOUN	L2 Remote	Related
mujer (woman)	NOUN	MITĂKUÑA'I (GIRL)	NOUN	L2 Remote	Related
mañana (morning)	NOUN	KO'Ĕ (DAWN)	NOUN	L2 Remote	Related
hombre (man)	NOUN	KARAI (MISTER)	NOUN	L2 Remote	Related
bello (beautiful)	ADJECTIVE	IPORĂ (GOOD)	ADJECTIVE	L2 Remote	Related
leer (read)	VERB	OHAI (WRITE)	VERB	L2 Remote	Related

Prime	Part of speech	Target	Part of speech	Recency	Relatedness
día (day)	NOUN	PYHARE (EVENING)	NOUN	L2 Remote	Related
perdón (sorry)	NOUN	CHEAÑYRÖ (APOLOGIZE)	VERB	L2 Remote	Related
nene (kid)	NOUN	MITÄ'I (TODDLER)	NOUN	L2 Remote	Related
noticia (news)	NOUN	KUATIAHAIPYRE (NEWSPAPER)	NOUN	L2 Remote	Related
mujer (woman)	NOUN	KUÑAKARAI (MADAM)	NOUN	L2 Remote	Related
libro (book)	NOUN	OMOÑE'Ē (READ)	VERB	L2 Remote	Related
este (this)	DETERMINER	PE (THAT)	DETERMINER	L2 Remote	Related
tostada (toast)	ADJECTIVE	MBUJAPE (BREAD)	NOUN	L2 Remote	Related
chica (girl)	NOUN	KUÑA (FEMALE)	ADJECTIVE	L2 Remote	Related
descanso (rest)	NOUN	ASAJE (NAP)	NOUN	L2 Remote	Related
día (day)	NOUN	KA'ARU (AFTERNOON)	NOUN	L2 Remote	Related
ese (that)	DETERMINER	AMO (THAT YONDER)	DETERMINER	L2 Remote	Related
joven (young)	ADJECTIVE	MITÄ (CHILD)	NOUN	L2 Remote	Related
manzana (apple)	NOUN	YVA (FRUIT)	NOUN	L2 Remote	Related
señorita (lady)	NOUN	KUÑATAI (YOUNG WOMAN)	NOUN	L2 Remote	Related
horrible (horrible)	ADJECTIVE	IVAI (UGLY)	ADJECTIVE	L2 Remote	Related
tomar (drink)	VERB	HO'U (EAT)	VERB	L2 Remote	Related
vaca (cow)	NOUN	KAMBY (MILK)	NOUN	L2 Remote	Related
amanecer (dawn)	NOUN	PYHAREVE (MORNING)	NOUN	L2 Remote	Related
joven (young)	ADJECTIVE	KARIA'Y (YOUNG MAN)	NOUN	L2 Remote	Related
hogar (home)	NOUN	ÓGA (HOME)	NOUN	L2 Remote	Related
uno (one)	PRONOUN	PETEĪ (A)	DETERMINER	L2 Remote	Related
nosotros (us)	PRONOUN	PEĒ (YOU ALL)	PRONOUN	L2 Remote	Related
uva (grape)	NOUN	KAGUY (ALCOHOLIC BEVERAGE)	NOUN	L2 Remote	Related
ella (she)	PRONOUN	HA'E (HE)	PRONOUN	L2 Remote	Related
tú (you)	PRONOUN	NDE (YOUR)	PRONOUN	L2 Remote	Related
mi (my)	DETERMINER	CHE (I)	PRONOUN	L2 Remote	Related
río (river)	NOUN	Y (WATER)	NOUN	L2 Remote	Related
alga (seaweed)	NOUN	TIGRE (TIGER)	NOUN	L1	Unrelated
tortuga (turtle)	NOUN	AVENA (OATS)	NOUN	L1	Unrelated
cartón (cardboard)	NOUN	HUMANO (HUMAN)	ADJECTIVE	L1	Unrelated
cartón (cardboard)	NOUN	TRIGO (WHEAT)	NOUN	L1	Unrelated
lapicera (pen)	NOUN	CARA (FACE)	NOUN	L1	Unrelated
zócalo (baseboard)	NOUN	MANO (HAND)	NOUN	L1	Unrelated
rúcula (arugula)	NOUN	FAMILIA (FAMILY)	NOUN	L1	Unrelated
uva (grape)	NOUN	AMIGO (FRIEND)	NOUN	L1	Unrelated
edificio (building)	NOUN	PULPO (OCTOPUS)	NOUN	L1	Unrelated
arroz (rice)	NOUN	BRAZO (ARM)	NOUN	L1	Unrelated
panadería (bakery)	NOUN	LAGO (LAKE)	NOUN	L1	Unrelated
espalda (back)	NOUN	SELVA (JUNGLE)	NOUN	L1	Unrelated
espalda (back)	NOUN	MANZANA (APPLE)	NOUN	L1	Unrelated
labial (lipstick)	ADJECTIVE	OVEJA (SHEEP)	NOUN	L1	Unrelated
anillo (ring)	NOUN	PARQUE (PARK)	NOUN	L1	Unrelated
azúcar (sugar)	NOUN	ÁGUILA (EAGLE)	NOUN	L1	Unrelated
clavo (nail)	NOUN	REMERÁ (T-SHIRT)	NOUN	L1	Unrelated
rayo (lightning)	NOUN	HIJO (SON)	NOUN	L1	Unrelated
kiwi (kiwifruit)	NOUN	CAMELLO (CAMEL)	NOUN	L1	Unrelated

Prime	Part of speech	Target	Part of speech	Recency	Relatedness
codo (elbow)	NOUN	RÍO (RIVER)	NOUN	L1	Unrelated
ricota (ricotta)	NOUN	TÍO (UNCLE)	NOUN	L1	Unrelated
codo (elbow)	NOUN	COCODRILO (CROCODILE)	NOUN	L1	Unrelated
trapo (rag)	NOUN	VIDA (LIFE)	NOUN	L1	Unrelated
cebolla (onion)	NOUN	CACHORRO (PUPPY)	NOUN	L1	Unrelated
té (tea)	NOUN	CABEZA (HEAD)	NOUN	L1	Unrelated
ladrido (bark)	NOUN	CIRUELA (PLUM)	NOUN	L1	Unrelated
horno (oven)	NOUN	SERPIENTE (SNAKE)	NOUN	L1	Unrelated
vocal (vowel)	ADJECTIVE	SALUD (HEALTH)	NOUN	L1	Unrelated
vidrio (glass)	NOUN	PIE (FOOT)	NOUN	L1	Unrelated
luz (light)	NOUN	PERA (PEAR)	NOUN	L1	Unrelated
tecla (key)	NOUN	MADRE (MOTHER)	NOUN	L1	Unrelated
cielo (sky)	NOUN	CUERPO (BODY)	NOUN	L1	Unrelated
cielo (sky)	NOUN	POLLO (CHICKEN)	NOUN	L1	Unrelated
arbusto (bush)	NOUN	RELOJ (CLOCK)	NOUN	L1	Unrelated
pastas (pasta)	NOUN	CEBRA (ZEBRA)	NOUN	L1	Unrelated
ojo (eye)	NOUN	ENERGÍA (ENERGY)	NOUN	L1	Unrelated
vidrio (glass)	NOUN	CAMPO (FIELD)	NOUN	L1	Unrelated
lago (lake)	NOUN	DAMA (LADY)	NOUN	L1	Unrelated
zócalo (baseboard)	NOUN	PARRILLA (GRILL)	NOUN	L1	Unrelated
pelota (ball)	NOUN	ATÚN (TUNA)	NOUN	L1	Unrelated
serpiente (snake)	NOUN	TEMBIPORU (UTENSIL)	NOUN	L2 Recent	Unrelated
papa (potato)	NOUN	MBERU (FLY)	NOUN	L2 Recent	Unrelated
pájaro (bird)	NOUN	HE'Ĕ (SWEET)	ADJECTIVE	L2 Recent	Unrelated
taza (cup)	NOUN	GUYRA (BIRD)	NOUN	L2 Recent	Unrelated
casa (house)	NOUN	JUKY (SALT)	NOUN	L2 Recent	Unrelated
papa (potato)	NOUN	ÑANDU (SPIDER)	NOUN	L2 Recent	Unrelated
carpa (tent)	NOUN	PÝRA (RAW)	ADJECTIVE	L2 Recent	Unrelated
sonido (sound)	NOUN	SO'O (MEAT)	NOUN	L2 Recent	Unrelated
mar (sea)	NOUN	RYGUASU (CHICKEN)	NOUN	L2 Recent	Unrelated
sonido (sound)	NOUN	JUKYSY (SOUP)	NOUN	L2 Recent	Unrelated
cocinar (cook)	VERB	AREKO (HAVE)	VERB	L2 Recent	Unrelated
casa (house)	NOUN	EIRATĀ (SUGAR)	NOUN	L2 Recent	Unrelated
tapa (cover)	NOUN	TAPITI (RABBIT)	NOUN	L2 Recent	Unrelated
carta (letter)	NOUN	KA'I (MONKEY)	NOUN	L2 Recent	Unrelated
banana (banana)	NOUN	MBARAKAJA (CAT)	NOUN	L2 Recent	Unrelated
firma (signature)	NOUN	ANGUJA (MOUSE)	NOUN	L2 Recent	Unrelated
mano (hand)	NOUN	AJOGUA (BUY)	VERB	L2 Recent	Unrelated
cielo (sky)	NOUN	AMBOJY (COOK)	VERB	L2 Recent	Unrelated
tablero (board)	NOUN	MYMBA (ANIMAL)	NOUN	L2 Recent	Unrelated
pescado (fish)	NOUN	VAKAME (BULL)	NOUN	L2 Recent	Unrelated
ala (wing)	NOUN	MERŌ (MELON)	NOUN	L2 Recent	Unrelated
avena (oats)	NOUN	OGUATA (WALK)	VERB	L2 Recent	Unrelated
edificio (building)	NOUN	KURE (PORK)	NOUN	L2 Recent	Unrelated
arroz (rice)	NOUN	KARUMBE (TURTLE)	NOUN	L2 Recent	Unrelated
ojo (eye)	NOUN	OÑANI (RUN)	VERB	L2 Recent	Unrelated
rubí (ruby)	NOUN	RUPI'A (EGG)	NOUN	L2 Recent	Unrelated

Prime	Part of speech	Target	Part of speech	Recency	Relatedness
hormigón (concrete)	ADJECTIVE	ŇATI'Ů (MOSQUITO)	NOUN	L2 Recent	Unrelated
termo (thermos)	NOUN	YPE (DUCK)	NOUN	L2 Recent	Unrelated
tarde (afternoon)	ADVERB	KAVAJU (HORSE)	NOUN	L2 Recent	Unrelated
araña (spider)	NOUN	AVATI (CORN)	NOUN	L2 Recent	Unrelated
luna (moon)	NOUN	TAHÝI (ANT)	NOUN	L2 Recent	Unrelated
fruta (fruit)	NOUN	JAGUA (DOG)	NOUN	L2 Recent	Unrelated
capa (layer)	NOUN	MBOREROTOCU (ELEFANT)	NOUN	L2 Recent	Unrelated
pan (bread)	NOUN	OVEVE (FLY)	VERB	L2 Recent	Unrelated
caballo (horse)	NOUN	YVY'A (POTATO)	NOUN	L2 Recent	Unrelated
dama (lady)	NOUN	PIRA (FISH)	NOUN	L2 Recent	Unrelated
muchacho (boy)	NOUN	TEMBI'U (MEAL)	NOUN	L2 Recent	Unrelated
aguja (needle)	NOUN	AVATI'I (RICE)	NOUN	L2 Recent	Unrelated
señal (signal)	NOUN	SEVÓI (ONION)	NOUN	L2 Recent	Unrelated
pala (shovel)	NOUN	PAKOVA (BANANA)	NOUN	L2 Recent	Unrelated
pescado (fish)	NOUN	OÑARÖ (BARK)	VERB	L2 Recent	Unrelated
núcleo (core)	NOUN	ASAJE (NAP)	NOUN	L2 Remote	Unrelated
mujer (woman)	NOUN	KA'ARU (AFTERNOON)	NOUN	L2 Remote	Unrelated
zanahoria (carrot)	NOUN	AMO (THAT YONDER)	DETERMINER	L2 Remote	Unrelated
atún (tuna)	NOUN	MITÄ (CHILD)	NOUN	L2 Remote	Unrelated
bombilla (light bulb)	NOUN	YVA (FRUIT)	NOUN	L2 Remote	Unrelated
cal (lime)	NOUN	KUÑATAI (YOUNG WOMAN)	NOUN	L2 Remote	Unrelated
estrella (star)	NOUN	IVAI (UGLY)	ADJECTIVE	L2 Remote	Unrelated
correr (run)	VERB	HO'U (EAT)	VERB	L2 Remote	Unrelated
leer (read)	VERB	KAMBY (MILK)	NOUN	L2 Remote	Unrelated
menta (mint)	NOUN	PYHAREVE (MORNING)	NOUN	L2 Remote	Unrelated
pan (bread)	NOUN	KARIA'Y (YOUNG MAN)	NOUN	L2 Remote	Unrelated
salmón (salmon)	NOUN	ÓGA (HOME)	NOUN	L2 Remote	Unrelated
escuela (school)	NOUN	PETEĬ (A)	DETERMINER	L2 Remote	Unrelated
pera (pear)	NOUN	PEĚ (YOU ALL)	PRONOUN	L2 Remote	Unrelated
tortuga (turtle)	NOUN	KAGUY (ALCOHOLIC BEVERAGE)	NOUN	L2 Remote	Unrelated
caballo (horse)	NOUN	HA'E (HE)	PRONOUN	L2 Remote	Unrelated
cuchara (spoon)	NOUN	NDE (YOUR)	PRONOUN	L2 Remote	Unrelated
hoja (leaf)	NOUN	CHE (I)	PRONOUN	L2 Remote	Unrelated
noche (night)	NOUN	Y (WATER)	NOUN	L2 Remote	Unrelated
conejo (rabbit)	NOUN	YVYPÓRA (PEOPLE)	NOUN	L2 Remote	Unrelated
hormiga (ant)	NOUN	OÑE'Ě (SPEAK)	VERB	L2 Remote	Unrelated
azúcar (sugar)	NOUN	AGUYJE (THANK)	VERB	L2 Remote	Unrelated
vaso (glass)	NOUN	ARANDUKA (BOOK)	NOUN	L2 Remote	Unrelated
noche (night)	NOUN	KUIMBA'E (MAN)	NOUN	L2 Remote	Unrelated
hierro (iron)	NOUN	KUATIAÑE'Ě (LETTER)	NOUN	L2 Remote	Unrelated
gallo (rooster)	NOUN	MITÄKUÑA'I (GIRL)	NOUN	L2 Remote	Unrelated
vaso (glass)	NOUN	KO'Ě (DAWN)	NOUN	L2 Remote	Unrelated
amanecer (dawn)	NOUN	KARAI (MISTER)	NOUN	L2 Remote	Unrelated
aquel (that)	DETERMINER	IPORÄ (GOOD)	ADJECTIVE	L2 Remote	Unrelated
melón (melon)	NOUN	OHAI (WRITE)	VERB	L2 Remote	Unrelated
pelo (hair)	NOUN	PYHARE (EVENING)	NOUN	L2 Remote	Unrelated
mañana (morning)	NOUN	CHEAÑYRÖ (APOLOGIZE)	VERB	L2 Remote	Unrelated

Prime	Part of speech	Target	Part of speech	Recency	Relatedness
salado (salty)	NOUN	MITÁ'I (TODDLER)	NOUN	L2 Remote	Unrelated
manguera (hose)	NOUN	KUATIAHAIPYRE (NEWSPAPER)	NOUN	L2 Remote	Unrelated
zanahoria (carrot)	NOUN	KUÑAKARAI (MADAM)	NOUN	L2 Remote	Unrelated
araña (spider)	NOUN	OMOÑE'Ē (READ)	VERB	L2 Remote	Unrelated
mano (hand)	NOUN	PE (THAT)	DETERMINER	L2 Remote	Unrelated
araña (spider)	NOUN	MBUJAPE (BREAD)	NOUN	L2 Remote	Unrelated
farol (lantern)	NOUN	KUÑA (FEMALE)	ADJECTIVE	L2 Remote	Unrelated