

Appendix 1 – Stimuli norming study 1

Replicating Barner, Wagner, and Snedeker (2008) [Study 1], we presented a description of iterative and durative events (1) and afterwards we asked the participants to read 27 sentences and evaluate whether they described an iterative or a durative event.

- (1) *Verbos em português podem descrever ações. Ações podem ser de diferentes tipos: ações contínuas e ações que vamos chamar aqui de “iterativas”. Ações contínuas (como “andar”) são ações que podem durar por um longo período de tempo, sem repetição. Ações “iterativas” (como “pular”) são ações que precisam ser repetidas para durarem muito tempo. [Portuguese verbs can describe actions. Actions can be of different types: continuous actions and actions that we will call here “iterative.” Continuous actions (such as “walking”) are actions that can last for a long period of time without repetition. “Iterative” actions (such as “jumping”) are actions that need to be repeated to last a long time.]*

Quando dizemos “João fez X o dia todo”, se X é “andar” (João andou o dia todo), significa, provavelmente, que ele andou por um longo período de tempo. Se X é “pular” (João pulou o dia todo), significa, provavelmente, que ele deu vários pulos ao longo do dia. Neste questionário você verá várias perguntas do tipo “João fez X o dia todo”. Você precisa decidir, de acordo com a intuição (não se preocupe com o que a gramática do português diz!), se um verbo descreve uma ação contínua ou iterativa. [When we say, “John did X all day,” if X is “walking” (John walked all day), it probably means that he walked for a long period of time. If X is “jumping” (John jumped all day), it probably means that he jumped several times throughout the day. In this questionnaire you will see several questions like “João did X all day.” You need to decide, according to intuition (do not worry about what the Portuguese grammar says!), if a verb describes a continuous or iterative action.]

The results for each individual verb are presented below. The verbs in bold are the verbs used in the main study.

Durative (>2/3)		Ambiguous (judged as iterative)		Iterative (>2/3)	
caminhar ‘walk’	62	<i>escalar</i> ‘climb’	33	<i>batucar</i> ‘beat’	49
correr ‘run’	47	<i>sorrir</i> ‘smile’	28	gritar ‘scream’	54
pedalar ‘ride a bike’	45	<i>limpar</i> ‘clean’	25	saltar ‘jump’	60
passear ‘stroll’	56			morder ‘bite’	59
falar ‘talk’	45			beliscar ‘pinch’	59
pintar ‘paint’	50			beijar ‘kiss’	60
costurar ‘sew’	45			espirrar ‘sneeze’	59
ler ‘read’	57			chutar ‘kick’	61
desenhar ‘draw’	50			pular ‘jump’	58
				<i>aplaudir</i> ‘clap’	46
				abraçar ‘hug’	52
				<i>latir</i> ‘bark’	48
				<i>soluçar</i> ‘sob’	47
				<i>martelar</i> ‘hammer’	54
				<i>tropeçar</i> ‘stumble’	58

Table 1: Number of subjects (out of 66) that judged each action verb as durative or iterative.

Appendix 2 – Stimuli norming study 2

Replicating Barner, Wagner, and Snedeker (2008) [Study 2], the participants were presented with the following instruction:

- (2) *Este estudo é sobre como medimos quantidades. Por exemplo, quando alguém pergunta “quem tem mais leite?”, pensamos em volume. [This study is about how we measure quantities. For example, when someone asks “who has more milk?” we think of volume.] Neste estudo, estamos investigando o que as pessoas consideram quando medem palavras que descrevem eventos (caminhada, grito, etc). Você verá uma pergunta e uma lista de opções de critérios que você usaria para responder a pergunta. Você pode escolher mais de uma opção para cada pergunta, caso avalie que mais de uma opção seja relevante para você. [In this study, we are investigating what people consider when they measure words that describe events (walk, scream, etc.). You will see a question and a list of options with criteria that you would use to answer the question. You can choose more than one option for each question if you judge that more than one option is relevant for you.]*

Then, the participants had to answer a question such as (3) by selecting as many options in a list as they thought would be appropriate.

- (3) *Se você tivesse que responder a pergunta “Quem fez mais caminhadas?”, quais critérios você usaria? [If you had to answer the question “Who took more walks?” what criteria would you use?]*

- () *volume* ‘volume’
- () *altura* ‘height’
- () *número* ‘number’
- () *tempo* ‘time’
- () *valor* ‘value’
- () *distância* ‘distance’
- () *intensidade* ‘intensity’
- () *profundidade* ‘depth’
- () *área* ‘area’

Forty-five adults answered a questionnaire that included only sentences with pluralized nouns in the target question; forty-five adults answered a questionnaire that included only sentences with bare singular nouns in the target question. With the exception of *batucar* ‘beat’, we used all of the verbs listed in Table 1, Appendix 1. As such, a total of nine durative verbs, 14 punctual verbs, and three “ambiguous” verbs were randomized in each of the two lists. Each participant answered 26 questions. Table 2 presents the non-number dimensions most frequently chosen in the evaluation of punctual and durative events. Table 2 only reports the results of the verbs used in the main study, reported in the Section 2 of this paper.

Event type	Noun	Bare noun	Pluralized noun
Durative	<i>Caminhada</i> ‘Walk’	Distance (84%)	Distance (67%)
	<i>Corrida</i> ‘Run’	Distance (62%)	Distance (56%)

	<i>Pedalada</i> ‘Ride a bike’	Distance (62%)	Distance (47%)
	<i>Passeio</i> ‘Promenade’	Time (29%)	Distance (33%), Time (27%)
	<i>Fala</i> ‘Talk’	Time (69%)	Time (62%)
	<i>Pintura</i> ‘Painting’	Area (49%)	Time (24%), Area (22%)
	<i>costura</i> ‘sewing’	Area (38%)	Time (27%)
	<i>leitura</i> ‘reading’	Time (64%)	Time (49%)
	<i>desenho</i> ‘drawing’	Area (36%)	Area (36%)
Punctual	<i>grito</i> ‘scream’	Intensity (53%), Volume (51%)	Intensity (33%), Volume (35%)
	<i>salto</i> ‘jump’	Height (44%)	Height (47%)
	<i>mordida</i> ‘bite’	Intensity (42%)	Intensity (20%)
	<i>beliscada</i> ‘pinch’	Intensity (33%)	Intensity (33%)
	<i>beijo</i> ‘kiss’	Time (31%), Intensity (31%)	Intensity (27%)
	<i>espirro</i> ‘sneeze’	Time (18%)	Intensity (22%)
	<i>chute</i> ‘kick’	Intensity (27%)	Intensity (27%)
	<i>pulo</i> ‘jump’	Height (51%)	Height (35%)
	<i>abraço</i> ‘hug’	Time (42%)	Intensity (40%)

Table 2: Non-number dimensions most frequently chosen for measuring punctual and durative events.

The most frequent non-number dimension selected by the participants for each verb was used to build the contexts in the main study. For pluralized nouns, the number dimension was expected to be frequently chosen. For bare singulars, interestingly, the number dimension was the preferred dimension for the majority of the nouns derived from punctual verbs tested (eight out of nine), while five out of nine nouns derived from durative verbs presented a similar pattern (i.e., above 70% of number selections).

Event type	Noun	Number dimension	
		Bare noun	Pluralized noun
Durative	<i>caminhada</i> ‘walk’	31%	60%
	<i>corrida</i> ‘run’	40%	64%
	<i>pedalada</i> ‘ride a bike’	44%	60%

	<i>passeio</i> ‘promenade’	80%	84%
	<i>fala</i> ‘talk’	44%	77%
	<i>pintura</i> ‘painting’	73%	91%
	<i>costura</i> ‘sewing’	80%	82%
	<i>leitura</i> ‘reading’	80%	82%
	<i>desenho</i> ‘drawing’	87%	93%
Punctual	<i>grito</i> ‘scream’	47%	71%
	<i>salto</i> ‘jump’	71%	91%
	<i>mordida</i> ‘bite’	80%	93%
	<i>beliscada</i> ‘pinch’	84%	93%
	<i>beijo</i> ‘kiss’	91%	91%
	<i>espirro</i> ‘sneeze’	95%	91%
	<i>chute</i> ‘kick’	88%	95%
	<i>pulo</i> ‘jump’	87%	93%
	<i>abraço</i> ‘hug’	82%	84%

Table 3: Percentage of selection of number dimension for durative and punctual events.

References

Barner, D., Wagner, L., & Snedeker, J. (2008). Events and the ontology of individuals: Verbs as a source of individuating mass and count nouns. *Cognition*, 106(2), 805–832. DOI: <https://doi.org/10.1016/j.cognition.2007.05.001>