

Appendix to

English verbs can omit their objects when they describe routines

Lelia Glass

School of Modern Languages, Georgia Institute of Technology

TENSE/ASPECT INFORMATION FROM THE REDDIT CORPUS STUDIES

I used NLTK’s Part-of-Speech tagger (Loper & Bird 2002) to gather information on the tense/aspect of the verbs used with and without objects in the Reddit corpus studies. Gerunds (-ing) are especially common among object-omitting token – perhaps because they straddle a border between lexical categories (Malouf 1998), and are rated lower on Hopper & Thompson’s scale of prototypical transitivity.

tense	with obj	example	w/o obj	example
pres	19%	Or maybe people would rather you consult them before making decisions that affect them	14%	Normally we tip quite well
-ing	20%	Thank you for expressing it so eloquently	42%	I’m picky about hiring because I can be
past	10%	So they fabricated a story that involved tree nubbins	6%	He shot first!
bare	42%	Can someone explain the law that says out of state people can purchase 1/4 of an ounce	25%	But I prefer to read about it, not watch
other	9%	He had won the victory over himself	14%	Some benefits to rent instead of buy : [...]
total	100%		100%	

Table 4. Considering all tokens of all 832 normally-transitive verbs in the ‘generalist’ subreddits, what percentage of these tokens (with and without objects) fall into which tense/aspect categories?

tense	with obj	example	w/o obj	example
pres	18%	No one on the defense covers the receivers.	6%	My 2yr old son and I bake together.
-ing	23%	Looking into buying cannabis stocks and discovered this thread.	61%	Begin with giving , even very simply, and you will soon find that you are receiving.
past	12%	And Avery actually caught the ball!	3%	Glad you posted.
bare	38%	eating more will help me gain muscle , correct?	20%	The man can block!
other	10%	I'm stuck with some servicer [...] who has called me six times	10%	clearly they should've passed
total	100%		100%	

Table 2. Considering all tokens of the 134 verbs that omit their objects more often in a specialty's subreddits compared to the generalist ones, what percentage of these tokens (with and without objects) fall into which tense/aspect categories?

STIMULI FOR EXPERIMENT 1: ROUTINE VERSUS SELECTION

Because these verbs are ones that do not normally omit their objects, and because past-tense tokens of verbs are particularly resistant to object omission, these items are intended to give the object-omitting stimulus sentence (*I crushed yesterday*) a relatively low baseline Likert rating. That way, the manipulations predicted to improve it would be most visible.

- (1) [**crush – medium frequency, low selection**] Your friend Helen tells you about her day:

verb	pmw frequency	selection
crush (tomatoes)	mid (24 Reddit; 4.93 CoCA)	low (0.66 Resnik; 4% simple)
distribute (cheese)	mid (22 Reddit; 6.31 CoCA)	low (0.51 Resnik; 6% simple)
manufacture (toys)	mid (19 Reddit; 2.89 CoCA)	low (0.59 Resnik; 6% simple)
transport (packages)	mid (13 Reddit; 4.12 CoCA)	low (0.62 Resnik; 6% simple)
repay (loans)	mid (6 Reddit; 3.74 CoCA)	high (1.71 Resnik; 33% simple)
book (tickets)	mid (3 Reddit; 2.03 CoCA)	high (1.56 Resnik; 24% simple)
ring (bells)	mid (9 Reddit; 9.51 CoCA)	high (1.54 Resnik; 44% simple)
scramble (eggs)	mid (6 Reddit; 3.56 CoCA)	high (1.82 Resnik; 50% simple)

Table 3. High and low-selection verbs used in Experiment 1, all from the middle 50% of the generalist Reddit data with respect to their frequency. The table shows each verb’s per-million word frequency in Reddit and in the Corpus of Contemporary American English (CoCA); and each verb’s selectional strength according to both the Resnik metric and the ‘simple’ metric.

a. **(High-routine:)** I worked at my homestead. Just like I always do, I crushed some tomatoes. Then I made sauce.

b. **(Low-routine:)** I visited a friend’s job. Just because people wanted me to try it, I crushed some tomatoes. Then I took some photos.

The next time Helen talks about crushing tomatoes the day before, how likely do you think she is to say the following?: ‘I crushed yesterday.’

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(2) [**manufacture – medium frequency, low selection**] Your friend Beau tells you about his day:

a. **(High-routine:)** I worked at my factory. Just like I always do, I manufactured some toys. Then I packaged some shipments.

b. **(Low-routine:)** I visited a friend’s job. Just because people wanted me

to try it, I manufactured some toys. Then I went out for drinks.

The next time Beau talks about manufacturing toys the day before, how likely do you think he is to say the following?: ‘I manufactured yesterday.’ ☆☆☆☆☆

(3) [**distribute – medium frequency, low selection**] Your friend Tanya tells you about her day:

a. (**High-routine:**) I worked at my dairy business. Just like I always do, I distributed some cheese. Then I sold some ice cream.

b. (**Low-routine:**) I visited a friend’s job. Just because people wanted me to try it, I distributed some cheese. Then I went to see my sister.

The next time Tanya talks about distributing cheese the day before, how likely do you think she is to say the following?: ‘I distributed yesterday.’ ☆☆☆☆☆

(4) [**transport – medium frequency, low selection**] Your friend Greg tells you about his day:

a. (**High-routine:**) I worked at my distribution center. Just like I always do, I transported some packages. Then I updated my logs.

b. (**Low-routine:**) I visited a friend’s job. Just because people wanted me to try it, I transported some packages. Then I went to the gym.

The next time Greg talks about transporting packages the day before, how likely do you think he is to say the following?: ‘I transported yesterday.’ ☆☆☆☆☆

(5) [**repay – medium frequency, high selection**] Your friend Samara tells you about her day:

- a. (**High-routine:**) I worked at my family business. Just like I always do, I repaid some loans. Then I worked on the budget.
- b. (**Low-routine:**) I visited a friend’s job. Just because people wanted me to try it, I repaid some loans. Then I went to see my aunt.

The next time Samara talks about repaying loans the day before, how likely do you think she is to say the following?: ‘I repaid yesterday.’
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(6) [**book – medium frequency, high selection**] Your friend Martin tells you about his day:

- a. (**High-routine:**) I worked at my travel agency. Just like I always do, I booked some tickets. Then I scheduled some tours.
- b. (**Low-routine:**) I visited a friend’s job. Just because people wanted me to try it, I booked some tickets. Then I went to the pool.

The next time Martin talks about booking tickets the day before, how

likely do you think he is to say the following?: ‘I booked yesterday.’

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(7) [**ring – medium frequency, high selection**] Your friend Jennifer tells you about her day:

a. (**High-routine:**) I worked at my church. Just like I always do, I rang some bells. Then I sang some hymns.

b. (**Low-routine:**) I visited a friend’s job. Just because people wanted me to try it, I rang some bells. Then I went to a restaurant.

The next time Jennifer talks about ringing bells the day before, how likely do you think she is to say the following?: ‘I rang yesterday.’

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(8) [**scramble – medium frequency, high selection**] Your friend Arthur tells you about his day:

a. (**High-routine:**) I worked at my breakfast café. Just like I always do, I scrambled some eggs. Then I made smoothies..

b. (**Low-routine:**) I visited a friend’s job. Just because people wanted me to try it, I scrambled some eggs. Then I called my parents.

The next time Arthur talks about scrambling eggs the day before, how likely do you think he is to say the following?: ‘I scrambled yesterday.’



verb	pmw frequency	selection
butcher (chickens)	low (2 Reddit, 0.38 CoCA)	mid (1.19 Resnik, 10% simple)
demolish (walls)	low (2 Reddit; 0.99 CoCA)	mid (1.42 Resnik, 15% simple)
whitewash (chairs)	low (1 Reddit, 0.22 CoCA)	mid (1.29 Resnik; 20% simple)
replenish (supplies)	low (2 Reddit, 1.16 CoCA)	mid (1.25 Resnik, 12% simple)
close (deals)	high (69 Reddit; 56.12 CoCA)	mid (0.89 Resnik; 14% simple)
roll (dough)	high (54 Reddit; 27.43 CoCA)	mid (0.89 Resnik; 9% simple)
taste (wines)	high (68 Reddit; 15.9 CoCA)	mid (0.82 Resnik; 10% simple)
wash (towels)	high (46 Reddit, 16.13 CoCA)	mid (0.87 Resnik; 20% simple)

Table 4: High and low-frequency verbs used in Experiment 2, all from the middle 50% of the generalist Reddit data with respect to their selectional strength. The table shows each verb’s per-million word frequency in Reddit and on CoCA; and each verb’s selectional strength according to both the Resnik metric and the ‘simple’ metric.

STIMULI FOR EXPERIMENT 2: ROUTINE VERSUS FREQUENCY

(1) [**butcher – low frequency, medium selection**] Your friend Caroline tells

you about her day:

- a. (**High-routine:**) I worked at my poultry farm. Just like I always do, I butchered some chickens. Then I gathered some eggs.
- b. (**Low-routine:**) I visited a friend’s job. Just because people wanted me to try it, I butchered some chickens. Then I went for a walk.

The next time Caroline talks about butchering chickens the day before, how likely do you think she is to say the following?: ‘I butchered yesterday.’ ☆☆☆☆☆

(2) [**demolish – low frequency, medium selection**] Your friend Trevor tells you

about his day:

- a. **(High-routine:)** I worked at my construction site. Just like I always do, I demolished some walls. Then I removed some rubble.
- b. **(Low-routine:)** I visited a friend's job. Just because people wanted me to try it, I demolished some walls. Then I got some lunch.

The next time Trevor talks about demolishing walls the day before, how likely do you think he is to say the following?: 'I demolished yesterday.' ☆☆☆☆☆

- (3) [**whitewash – low frequency, medium selection**] Your friend Nate tells you about his day:

- a. **(High-routine:)** I worked at my woodworking shed. Just like I always do, I whitewashed some chairs. Then I re-finished some tables.
- b. **(Low-routine:)** I visited a friend's job. Just because people wanted me to try it, I whitewashed some chairs. Then I got some coffee.

The next time Nate talks about whitewashing chairs the day before, how likely do you think he is to say the following?: 'I whitewashed yesterday.' ☆☆☆☆☆

- (4) [**replenish – low frequency, medium selection**] Your friend Ashley tells you about her day:

- a. **(High-routine:)** I worked at my craft store. Just like I always do, I replenished some supplies. Then I set up some beads.
- b. **(Low-routine:)** I visited a friend’s job. Just because people wanted me to try it, I replenished some supplies. Then I took a nap.

The next time Ashley talks about replenishing supplies the day before, how likely do you think she is to say the following?: ‘I replenished yesterday.’ ☆☆☆☆☆

(5) [**close – high frequency, medium selection**] Your friend Vivian tells you about her day:

- a. **(High-routine:)** I worked at my sales agency. Just like I always do, I closed some deals. Then I called some clients.
- b. **(Low-routine:)** I visited a friend’s job. Just because people wanted me to try it, I closed some deals. Then I picked up my kids.

The next time Vivian talks about closing deals the day before, how likely do you think she is to say the following?: ‘I closed yesterday.’
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(6) [**wash – high frequency, medium selection**] Your friend Lucas tells you about his day:

- a. **(High-routine:)** I worked at my spa. Just like I always do, I washed

some towels. Then I cleaned some bathrooms.

- b. **(Low-routine:)** I visited a friend's job. Just because people wanted me to try it, I washed some towels. Then I went to the park.

The next time Nate talks about washing towels the day before, how likely do you think he is to say the following?: 'I washed yesterday.'

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- (7) **[roll – high frequency, medium selection]** Your friend Francesca tells you about her day:

- a. **(High-routine:)** I worked at my pie shop. Just like I always do, I rolled some dough. Then I made some pastries.

- b. **(Low-routine:)** I visited a friend's job. Just because people wanted me to try it, I rolled some dough. Then I read the newspaper.

The next time Francesca talks about rolling dough the day before, how likely do you think she is to say the following?: 'I rolled yesterday.'

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- (8) **[taste – high frequency, medium selection]** Your friend Dylan tells you about his day:

- a. **(High-routine:)** I worked at my vineyard. Just like I always do, I tasted some wines. Then I shipped some bottles.

b. **(Low-routine:)** I visited a friend's job. Just because people wanted me to try it, I tasted some wines. Then I went to the gym.

The next time Dylan talks about tasting wines the day before, how likely do you think he is to say the following?: 'I tasted yesterday.'

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FILLERS (10 TOTAL), USED FOR BOTH EXPERIMENT 1 AND EXPERIMENT 2

- (1) Your friend Victor loves to dance ballet. The next time you see Victor when he has danced ballet the day before, how likely do you think he is to say the following?: 'I danced yesterday.' ☆☆☆☆☆
- (2) Your friend Bella loves to run marathons. The next time Bella tells you about running a marathon the day before, how likely do you think she is to say the following?: 'I ran yesterday.' ☆☆☆☆☆
- (3) Your friend Alex loves to read books. The next time Alex tells you about reading a book the day before, how likely do you think he is to say the following?: 'I read yesterday.' ☆☆☆☆☆
- (4) Your friend Isabelle loves to paint portraits. The next time Isabelle tells you about painting a portrait the day before, how likely do you think she is to say the following?: 'I painted yesterday.' ☆☆☆☆☆
- (5) Your friend Tina has just won a competition. When Tina tells you about this the next day, how likely do you think she is to say the following?: 'I won yesterday.' ☆☆☆☆☆
- (6) Your friend Simon has just found out a secret. When Simon tells you about this the next day, how likely do you think he is to say the following?: 'I

found out yesterday.' ☆☆☆☆☆

(7) Your friend Yvonne has just received an offer. When Yvonne tells you about this the next day, how likely do you think she is to say the following?: 'I received yesterday.' ☆☆☆☆☆

(8) Your friend Heath has just earned a raise. When Heath tells you about this the next day, how likely do you think he is to say the following?: 'I earned yesterday.' ☆☆☆☆☆

(9) Your friend Margaret has just unlocked an achievement. When Margaret tells you about this the next day, how likely do you think she is to say the following?: 'I unlocked yesterday.' ☆☆☆☆☆

(10) Your friend Jason has just seen a film. When Jason tells you about this the next day, how likely do you think he is to say the following?: 'I saw yesterday.' ☆☆☆☆☆

EXAMPLES OF OBJECT-OMITTING TOKENS OF VERBS FROM SPECIALTY COR-

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specialty	verb	example sentence
addiction	drink	Recovery involves much more than simply not drinking .
	eat	sweeping generalizations about how poorly all alcoholics eat .
	post	You've taken a big step by posting here.
	smoke	I think about smoking occasionally, but not in that urgent panic way I used to.
ballsports	bat	Pakistan are going to have to bat for all of tomorrow if they want to salvage this match.
	block	The man can block !
	catch	Auburn can't catch .
	cover	Our linebackers don't cover very well.
	deliver	India's secret weapon delivers again.
	drink	Drink every time ESPN mentions the cold.
	execute	It was just a matter of who executed better, in this case usually Syracuse.
	hear	Didn't you hear ?
	hold	Colin Kaepernick complaining about holding is ridiculous.
	like	Do not like ...
	miss	He missed again.
	pass	He is dynamic when he wants to run but he tends to want to do that more than pass .
	press	Oscar is a player capable of pressing ...
	produce	he'll be an expiring contract now, much easier to move regardless of how he's producing - which isn't near his prime, but he's definitely not a negative player.
	reach	Lowry reached first, then got the elbow after the foul.
	recall	I don't recall .
	receive	nobody else other than SMU have received .
	sell	They aren't interested in just selling , because they don't want the fair cash value.
	shoot	I always bring this up when people say that LeBron hurts the Heat's offense by not shooting enough.
	shovel	I don't like the idea of shoveling tomorrow morning.
strike	Vintage LeBron strikes again.	
throw	2nd quarter and Rodgers has only thrown six times.	
visit	Why WOULD you live in Pittsburgh; I haven't lived there since '99 and have zero desire to do much other than visit .	

specialty	verb	example sentence
beverage	age	The only bottle really worth anything to anyone would be that Stoic, which is pretty much the only beer in that lot which could benefit from aging .
	boil	Did you vigorously shake your wort after boiling to get oxygen in?
	bottle	I sold my kegging setup and went back to bottling .
	chill	I've since added a pump to my own system, but I use the pump for chilling only rather than use it for sparging and cooling later.
	clean	People also use glass because it isn't as susceptible to scratches introduced during cleaning .
	cool	I had a pale ale that, while going into the fermenter after cooling , my girlfriend said smelled like Fruity pebbles.
	distribute	FFF doesn't distribute outside of Chicagoland.
	enjoy	Looks like great find, enjoy!
	fill	store upside down and clean, then just sanitize prior to filling .
	filter	To answer your questions about filtering , don't try to run it through cheesecloth.
	freeze	Haven't actually measured the IBUs before and after freezing , so I'm not sure how their increase compares to alcohol or sweetness, but the sweet-bitter balance of the EisPA remained similar to the base beer to my palate.
	mash	Why did you mash so high?
	open	Were you chilling them sufficiently before opening ?
	serve	I've found that if I get a lot of chill haze in a beer, sticking other bottles of it in the fridge about a week before servicing is enough to clarify the chill-haze proteins do eventually drop to the bottom of the bottle.
	shake	I'm shooting to get somewhere around 250 billion cells according to the online calculators, not sure if I can quite reach that with just shaking , but I figure it's better than not doing a starter.
	stir	Gently stirring occasionally helps to dissipate the heat.
	taste	It's just super unruly amounts of bitter upon immediately tasting .
	transfer	Those who are strongly against using a secondary will tell you that you only risk contaminating your beer by transferring .

specialty	verb	example sentence
cardio	climb	Here's a really good GCN video looking at the benefits of having a light bike vs a light body for climbing .
	deliver	OP will deliver !
	enjoy	Good for you, enjoy .
	kick	However kicking is more than just strong legs!
	order	BTW what is the deadline for ordering ?
	pass	People pass close enough to nearly force a cyclist into the dirt.
	shave	but it doesn't outweigh the continual upkeep and itchy growing in when you don't feel like shaving again.
	shift	It's more resistant to this for certain, but I'm quite certain you could still damage it/the cassette if you fail super hard at shifting .
	smoke	I went from smoking for 10 years, to running *and* smoking for a year, to finally just running.
	stretch	Are you stretching enough?
fabric	block	You can soften the yarn by blocking , maybe that'll help you like it a little more, I think your mom will love it.
	cut	Just make sure the sleeve length is correct before cutting !
	enjoy	Malabrigo is gorgeous yarn, enjoy !
	shape	That's amazing, I wouldn't have a clue about shaping .
	turn	Turn . . .
emergency	carry	I personally carry everywhere.
	eat	and I'm eating better.
	fire	I'm glad the officer with the stop sticks moved where he did before firing .
	shoot	Officers shot back.

specialty	verb	example sentence
finance	bite	Against my better judgement I will bite .
	buy	My point was if he were trying to time the market which I don't advocate, buying right now is what a market timer would try to do.
	call	Just take good notes and figure out what your questions are prior to calling .
	close	Get your lawyer to call theirs and the threat of not closing should make them clean up the place.
	cook	It's pretty easy to spend \$700 a month on restaurants not even counting alcohol living in NYC if you're lazy about cooking and go out with friends a lot.
	eat	I've budgeted about \$150 for personal spending shopping, beauty, etc., \$150 on groceries, and \$150 on eating /going out , but still find myself running short at the end of the month.
	file	We will be filing jointly.
	hold	My advice: hold .
	invest	I would wait until you actually start working before investing .
	purchase	If you think there's a chance you will want to move in a few years, this will show you that you won't have gained much by having purchased .
	rent	Owning comes with its own obstacles too though, but in the end you should come out well ahead of renting .
	save	If you can cut some expenses and push yourself a little, you might be surprised what 1-2 good years of married without kids income can look like when you're really focused on saving .
	sell	Obviously anyone with a brain would sell .
	smoke	Why would you smoke , get into an accident and sue the shop/company?

specialty	verb	example sentence
legal	call	I should probably call .
	drink	No, you got another DUI due to you drinking and then getting behind the wheel of a car.
	drive	Your lawyer will explain to the court that you were drinking in your house after you returned home from driving .
	study	6 months of studying could save you over \$100,000 and could greatly increase your job prospects.
martial	hit	The whole idea is that Krav is about hitting hard and fast, and that's what Thai boxing gives.
	kick	if you try it out and find that you are not so comfortable kicking , then the obvious answer is just traditional boxing.
	pass	if you do it right, you should be able to stop him from passing nearly regardless of his strength, and if you can't it has to do with your technique or his technique being way better and not guard being a weak position.
	punch	Is there some Harvard physics paper that defines what is most efficient output of force for punching ?
	stretch	Stretch a lot to prevent injuries too like shin splints.
	strike	But he could strike really well.
	tap	He absolutely tapped .
medicine	call	You know, a decent doctor would have said 'Thanks for calling , but this is why I want to use NS instead of D5W.'
	drink	Well, you certainly have a judgement problem when drinking - it's the same thing IMO.
	eat	could my lack of eating then cause this?
	hire	but I don't know much about other than that they are usually hir- ing .
	smoke	However, I don't think there is nearly enough evidence available to make a statement like e-cigs are better for you than smoking .
	study	I've never been great with studying but am managing nursing school great.

specialty	verb	example sentence
military	lead	Squad leaders usually lead . . .
	separate	Do NOT listen to people tell you that all you need is a degree to get a job after separating .
	serve	To some people, having served ends up being one of the best things in their live's as personal growth/development.
	shoot	I can kinda get it to make sense in my head, if that was the only kind of shooting you ever did.
parenting	bake	My 2yr old son and I bake together at least once a week.
	bite	After one minute, get down on his level again, and make sure he looks you in the eye, and tell him 'You were in time out for biting .'
	carry	If you are interested in carrying there are tons of options out there.
	eat	Does she spit up tons after eating ?
	feed	Feeding is one of the few really tangible, essential things you do for a newborn.
	hit	If he gets to the point of hitting , we absolutely do time-outs.
	invest	If you want her to learn about investing , you should encourage her to buy stock in Mattel or buy one for her when she buys her doll, which owns American Girl.
	pump	Also, an employer cannot fire you for pumping .
	push	I know when I gave birth I caused myself to have horrible hemorrhoids from pushing .
	scratch	We basically had to do this for about a week or two, if he bit/hit/ scratched while angry, it was a light two finger slap on the hand or cheek and he'd stop, startled, and usually just go back to playing.
	spank	The point is you can very easily solve problems of hitting and tantrums without spanking .
	swallow	But neither of my kids have had any issues with not swallowing .
	win	She will always win as long as you keep letting her.

specialty	verb	example sentence
photo	buy	make sure you understand the difference between TTL and non-TTL units before buying and learn to bounce flash light off walls and ceilings.
	guide	That's a great result for tracking without guiding , especially for the 75 seconds.
	order	And since it aint gonna be cheap, i thought i hear what other have to say before ordering .
	purchase	Just check each one individually before purchasing because there are a few bad apples in each barrel.
	shoot	How long have you been shooting professionally?
	stack	After stacking , I did some wavelet sharpening and then saved as 16 bit tif for use in Photoshop.
	track	what m43 struggles with is tracking .
religion	bite	We don't bite .
	create	Creating is the generation of something new.
	give	There is joy in giving .
	kill	One cannot directly kill either.
	provide	The Lord provides .
	stone	The verses I posted call for at a minimum shunning nonchristians, and at a maximum murdering them by stoning .
strength	cut	My point is your diet changes only when you switch from bulking to cutting .
	eat	I always work out in the mornings without eating .
	gain	I've been gaining .
	lift	Damn son, how long have you been lifting ?
	press	But my ass doesn't leave the bench, I don't change my leverage to move the weight, as far as I understand - my motion of pressing should be conducive to getting stronger/bigger.
	push	I don't have to stabilize at all and can just focus on pushing .
	smoke	Also, don't smoke .
	stretch	What worked for me was just simply stretching .
	wash	I wash every time I wear something.