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Supplementary Material

1 Stimuli

1.1 Primes

All homonyms were selected based on meaning-frequency norms in British English (Maciejewski & Klepousniotou, 2016). Unbalanced homonyms had the highest scores of meaning dominance[1] (β), while balanced homonyms had the lowest scores. For the former, we excluded highly unbalanced homonyms whose alternative, LF meaning was unknown (i.e., given a frequency rating of 0%) to more than 25 out of the 100 participants in the norms. This was necessary to ensure that the items were truly ambiguous and processed as such. All non-homonyms had only one meaning/entry in the Wordsmyth Dictionary (Parks, Ray, & Bland, 1998). None of the primes was a compound word or a homophone.

The four sets of primes were statistically comparable (all Fs < 1) with respect to 14 lexical and semantic variables, such as word-form frequency and the number of related senses (see stimulus properties in Table 1 below). Prime-word selection was constrained by word length (3-6 letters) and word-form frequency (5-60 occurrences per million) in the British National Corpus (BNC; 2007). Due to a small number of balanced homonyms in English, it was impossible to include items of a single syntactic class. This variability was, however, controlled across the four types of primes. Most items in each prime set had either noun-noun (range across the sets: 12-17 out of 28)

[1] β is a formal measure of meaning dominance introduced by Armstrong, Tokowicz, and Plaut (2012). β-scores range from 0 to 1, where the latter corresponds to words with highly unbalanced meaning frequencies. β is calculated by subtracting the rating of the less frequent meaning from the rating of the more frequent meaning and then dividing the result by the rating of the more frequent meaning.

or noun-verb interpretations (7-9), with very few having noun-adjective (1-4), verb-adjective (0-3), adjective-adjective (0-1), or verb-verb interpretations (0-1).

Table 1. Properties of the homonymous and non-homonymous primes.

Variable	Homonymous prime		Non-homonymous prime	
	Balanced	Unbalanced	Set 1	Set 2
Example	“fan”	“pen”	“crew”	“dawn”
Meaning relatedness	2.1 (0.5)	2.0 (0.5)	5.8 (0.6)	5.8 (0.5)
Meaning dominance (β)	0.4 (0.1)	0.7 (0.1)	-	-
Letters	4.3 (0.8)	4.0 (0.8)	4.3 (0.9)	4.1 (0.9)
Phonemes	3.6 (0.7)	3.4 (0.8)	3.6 (0.7)	3.5 (0.8)
Syllables	1.1 (0.4)	1.1 (0.3)	1.1 (0.4)	1.2 (0.4)
Raw frequency	18.9 (13.4)	18.2 (10.8)	18.8 (12.4)	18.7 (10.2)
Log frequency	1.2 (0.3)	1.2 (0.3)	1.2 (0.3)	1.2 (0.2)
Orthographic neighbors	7.3 (6.0)	9.2 (6.2)	7.6 (5.0)	7.3 (5.7)
Log bigram frequency	2.8 (0.5)	2.8 (0.4)	2.8 (0.4)	2.7 (0.5)
Wordsmyth senses	8.1 (4.3)	8.0 (3.4)	8.3 (4.0)	7.9 (3.4)
WordNet senses	8.1 (4.3)	8.0 (3.3)	8.0 (4.7)	8.0 (4.4)
Imageability	4.8 (1.2)	4.9 (0.9)	5.1 (0.8)	4.8 (1.1)
Concreteness	5.3 (0.8)	5.2 (0.7)	5.0 (0.8)	5.0 (0.9)
Age of acquisition	7.6 (1.8)	7.0 (2.0)	7.0 (1.6)	6.9 (1.8)
Semantic diversity	1.6 (0.2)	1.6 (0.2)	1.6 (0.2)	1.7 (0.2)
Subjective familiarity	5.0 (0.4)	5.0 (0.6)	5.0 (0.5)	5.1 (0.5)

Note. Standard deviations are given in the parentheses. Meaning-relatedness and dominance norms come from Maciejewski and Klepousniotou (2016). Word-form frequency, bigram frequency, and the number of orthographic neighbors come from the British National Corpus (2007). Wordsmyth and WordNet senses refer to the numbers of related senses in the Wordsmyth (Parks et al., 1998) and WordNet dictionaries (Fellbaum, 1998), respectively. Imageability, concreteness, and subjective familiarity ratings come from the MRC Psycholinguistic Database (Coltheart, 1981). Age-of-acquisition ratings come from Kuperman, Stadthagen-Gonzalez, and Brysbaert (2012). Semantic diversity data come from Hoffman, Lambon Ralph, and Rogers (2013).

1.2 Targets

All targets were non-homonyms with one meaning/entry in the Wordsmyth Dictionary (Parks et al., 1998), except for the word “chess” which had two additional low-frequency meanings (a floor board of a pontoon bridge; a variety of weedy grasses). For homonyms, none of the targets related to both meanings of these primes. All 16 sets of targets were matched (all Fs < 1) on the same lexical and semantic variables as those used for prime-word selection (see Tables 2 & 3 below). The syntactic class of the targets was balanced across the sets, such that each contained 17-23 nouns, 3-7 verbs, and 2-6 adjectives.

1.3 Prime-target relatedness

We did not use targets that were lexical, rather than semantic, associates (e.g., “tap-water”). Targets related to primes through category membership (e.g., “novel-poem”; range across the sets: 2-11 out of 28), action-recipient relationship (e.g., “jam-knife”; 2-7), properties (e.g., “temple-chapel”; 4-10), synonymy (e.g., “lean-slim”; 4-9) and, in very few cases, antonymy (e.g., “bald-hairy”; 0-2). The proportions of these different relationship types were similar across the sets with homonyms but dissimilar compared to the sets with non-homonyms. We took this variability into account in our analyses, even though we did not find these different relationship types to have different influences on error rates and RTs[2].

The semantic relatedness between primes and targets was confirmed by 40 monolingual British-English native speakers [17 females, aged 18-40 (M = 28.3, SD = 6.4)] recruited via Prolific (prolific.ac.uk). In this online pre-test, participants rated all word pairs on a 7-point Likert scale (where 1 denoted “highly unrelated” and 7 “highly related”). For unrelated pairs, the maximum prime-target relatedness rating was set to

[2] Support for this comes from mixed-effects analyses with intercepts for subjects and items as random effects and Relationship Type (category membership, action-recipient relationship, property, synonymy, or antonymy) as a fixed effect. These analyses showed that Relationship Type did not have a significant effect on error rates [Experiment 1a: $\chi^2(4) = 3.7$, $p = .44$; Experiment 1b: $\chi^2(4) = 4.0$, $p = .41$] and RTs [Experiment 1a: $\chi^2(4) = 8.5$, $p = .07$; Experiment 1b: $\chi^2(4) = 5.9$, $p = .20$].

3.3 (corresponding to “slightly unrelated”). For the related counterparts, the minimum rating was 4.5 (between “neither related nor unrelated” and “slightly related”). Eleven unrelated and 51 related targets that did not meet these criteria were replaced by new targets. The new targets were then rated using the same procedure by another group of 40 monolingual native speakers [23 females, aged 19-38 (M = 28.8, SD = 6.1)]. Mean relatedness ratings for the final sets of related and unrelated pairs are given in Tables 2 and 3, respectively. There were no significant differences in the ratings between the sets of unrelated word pairs ($F < 1$). For related pairs, the ratings for the LF-meaning targets of unbalanced homonyms (e.g., “pen-farmer”) were lower (all ps $< .001$) than for every other, otherwise well-matched, set.

Twenty monolingual British-English native speakers [8 females, aged 21-36 (M = 29.3, SD = 5.3)] participated in another prime-target relatedness pre-test. The aim of this study was to verify whether the low ratings for unbalanced homonyms and their LF-meaning targets truly reflected poor semantic relatedness, or whether participants’ ratings were biased by meaning frequency. In this study, participants first read a sentence (all taken from the Oxford Dictionary; Simpson & Weiner, 1989) containing the homonym in its LF meaning (e.g., “Along with the original small red house, we now have two barns, a sheep pen and several sheds”) and then used the 7-point Likert scale to rate the relatedness between the homonym and four words (two unrelated fillers and two targets related to the LF meaning). Critically, these ratings were collected for the LF-meaning targets of both balanced and unbalanced homonyms.

The “primed” ratings for the LF-meaning targets of unbalanced homonyms were significantly higher (M = 5.6, SD = 0.5) than those in the “unprimed” pre-test [M = 4.4, SD = 1.1, $t(27) = 6.6$, $p < .001$] and no longer significantly lower than the ratings for the other sets of related pairs [$F(7, 216) = 1.8$, $p = .09$]. Interestingly, the primed ratings for the LF-meaning targets of balanced homonyms (M = 5.7, SD = 0.5) did not differ from those made in the absence of contextual bias [M = 5.8, SD = 0.4; t(27) = 0.6, p = .58]. Taken together, these results show that the LF-meaning targets of unbalanced homonyms were indeed semantically related and suitable for testing. It seems that these word pairs were given relatively lower ratings in the absence of context due to participants' strong bias toward the HF meaning of ambiguous words, and not because they were not related to primes.

Table 2. Properties of the related targets.

Variable	Homonymous prime				Non-homonymous prime			
	Balanced		Unbalanced		Set 1		Set 2	
	HF	LF	HF	LF	HF	LF	HF	LF
Example	“fan-cheer”	“fan-breeze”	“pen-ink”	“pen-farmer”	“fake-truth”	“fake-fraud”	“fur-fox”	“fur-rabbit”
Prime-target relatedness	5.8 (0.6)	5.8 (0.4)	6.01 (0.5)	4.4 (1.1)	6.0 (0.5)	5.9 (0.5)	5.9 (0.5)	6.0 (0.5)
Letters	5.0 (1.0)	5.1 (1.1)	4.7 (1.1)	5.1 (1.2)	4.9 (1.0)	4.6 (0.9)	4.7 (0.9)	4.8 (0.8)
Phonemes	4.1 (0.9)	4.3 (1.3)	3.9 (1.0)	4.1 (1.4)	4.0 (0.8)	3.8 (0.9)	3.9 (0.9)	3.9 (0.8)
Syllables	1.3 (0.5)	1.6 (0.7)	1.4 (0.6)	1.5 (0.6)	1.4 (0.6)	1.2 (0.4)	1.3 (0.5)	1.4 (06)
Raw frequency	24.4 (14.7)	24.9 (19.9)	24.2 (18.1)	28.1 (25.4)	28.0 (24.4)	26.1 (22.9)	24.4 (20.6)	27.1 (23.4)
Log frequency	1.3 (0.3)	1.3 (0.4)	1.3 (0.3)	1.3 (0.5)	1.3 (0.4)	1.2 (0.4)	1.2 (0.4)	1.3 (0.4)
Orthographic neighbors	4.1 (4.8)	3.8 (5.0)	5.2 (3.6)	4.3 (5.3)	4.1 (5.1)	5.1 (4.8)	5.1 (4.6)	5.3 (5.6)
Log bigram frequency	2.7 (0.5)	2.6 (0.5)	2.8 (0.6)	2.8 (0.4)	2.8 (0.3)	2.8 (0.4)	2.8 (0.4)	2.8 (0.4)
Wordsmyth senses	5.5 (3.4)	5.1 (3.2)	5.3 (3.3)	5.3 (2.2)	5.5 (3.9)	5.4 (3.4)	5.4 (5.9)	5.9 (4.2)
WordNet senses	6.1 (5.0)	5.3 (3.9)	5.7 (3.1)	5.6 (3.7)	6.0 (3.8)	5.4 (3.0)	5.6 (3.5)	6.1 (4.0)
Imageability	5.2 (1.1)	4.8 (1.3)	5.1 (1.0)	5.6 (1.0)	4.9 (1.0)	5.2 (1.1)	5.2 (0.8)	5.1 (1.0)
Concreteness	5.5 (0.9)	5.1 (1.0)	5.1 (0.9)	5.6 (0.9)	5.0 (1.1)	5.1 (1.0)	4.9 (1.2)	5.2 (0.9)
Age of acquisition	6.2 (1.6)	7.1 (2.1)	6.2 (1.5)	5.5 (2.4)	6.6 (1.9)	6.3 (1.8)	6.3 (2.1)	6.2 (2.5)
Semantic diversity	1.6 (0.2)	1.6 (0.3)	1.6 (0.2)	1.6 (0.2)	1.7 (0.3)	1.7 (0.2)	1.6 (0.3)	1.6 (0.2)
Subjective familiarity	5.4 (0.5)	5.3 (0.6)	5.4 (0.6)	5.4 (0.5)	5.3 (0.4)	5.2 (0.5)	5.2 (0.6)	5.3 (0.5)

Note. Standard deviations are given in the parentheses. Information on variables is given in the note for Table 1.

Table 3. Properties of the unrelated targets.

Variable	Homonymous prime				Non-homonymous prime			
	Balanced		Unbalanced		Set 1		Set 2	
	HF	LF	HF	LF	HF	LF	HF	LF
Example	“fan-snake”	“fan-cancel”	“pen-yeast”	“pen-add”	“fake-expand”	“fake-fetch”	“fur-chain”	“fur-pill”
Prime-target relatedness	2.1 (0.6)	2.1 (0.5)	1.9 (0.3)	1.9 (0.3)	1.9 (0.3)	2.0 (0.4)	1.9 (0.4)	2.0 (0.4)
Letters	4.7 (0.9)	4.7 (0.8)	4.7 (1.0)	4.6 (1.1)	4.7 (0.8)	4.6 (0.8)	4.7 (1.1)	4.7 (1.0)
Phonemes	4.0 (0.8)	4.0 (1.2)	3.9 (1.0)	3.8 (1.0)	3.8 (1.0)	3.8 (1.0)	4.0 (1.1)	4.0 (1.0)
Syllables	1.4 (0.5)	1.4 (0.5)	1.3 (0.5)	1.3 (0.5)	1.4 (0.5)	1.3 (0.5)	1.4 (0.6)	1.4 (0.5)
Raw frequency	26.1 (23.7)	25.5 (22.8)	25.5 (19.0)	25.9 (22.5)	24.4 (23.1)	25.5 (23.6)	25.2 (22.4)	24.7 (24.2)
Log frequency	1.2 (0.4)	1.2 (0.4)	1.3 (0.4)	1.3 (0.4)	1.2 (0.2)	1.2 (0.4)	1.2 (0.4)	1.2 (0.5)
Orthographic neighbors	5.2 (5.1)	5.0 (5.6)	5.3 (5.4)	5.1 (4.4)	5.6 (5.2)	5.3 (5.2)	5.2 (6.0)	5.4 (5.6)
Log bigram frequency	2.7 (0.4)	2.7 (0.5)	2.7 (0.4)	2.6 (0.5)	2.7 (0.4)	2.6 (0.5)	2.6 (0.5)	2.6 (0.4)
Wordsmyth senses	5.1 (2.6)	5.1 (3.2)	5.3 (2.7)	5.1 (2.7)	5.4 (3.1)	5.1 (1.8)	5.1 (3.2)	5.1 (2.4)
WordNet senses	5.7 (2.9)	5.7 (3.5)	5.6 (3.5)	5.7 (4.6)	5.7 (3.5)	5.6 (3.7)	5.5 (3.5)	5.7 (3.7)
Imageability	5.2 (1.0)	5.3 (1.0)	5.2 (0.9)	5.1 (1.0)	5.2 (1.1)	5.3 (0.8)	5.2 (0.9)	5.2 (1.1)
Concreteness	5.2 (0.8)	5.1 (1.0)	5.2 (1.1)	5.3 (1.0)	5.0 (1.1)	5.1 (0.9)	4.9 (1.1)	5.3 (1.1)
Age of acquisition	6.2 (1.9)	6.4 (2.3)	6.1 (2.1)	6.0 (1.8)	6.1 (1.7)	6.2 (2.1)	6.1 (1.7)	6.2 (2.1)
Semantic diversity	1.6 (0.2)	1.6 (0.2)	1.5 (0.3)	1.6 (0.2)	1.6 (0.2)	1.6 (0.3)	1.6 (0.2)	1.6 (0.2)
Subjective familiarity	5.2 (0.6)	5.3 (0.7)	5.3 (0.6)	5.3 (0.5)	5.3 (0.7)	5.2 (0.8)	5.3 (0.5)	5.2 (0.5)

Note. Standard deviations are given in the parentheses. Information on variables is given in the note for Table 1.

2 Additional analyses

2.1 Results for Block

The analyses reported in the manuscript showed that responding to the same primes but different targets across four experimental blocks did not have a consistent impact on RTs (Experiments 1a, 1b, & 2) and amplitudes (Experiment 2). In Experiment 1a, there was only a significant main effect of Block for related trials [$\chi^2(3) = 8.6$, $p < .05$]. Post hoc tests, however, showed that this was exclusively due to faster responses in Block 2 (M = 606.3, SD = 93.2) than in Block 4 (M = 633.6, SD = 107.1; $p < .05$). In Experiment 1b, there was only a significant Block × Prime interaction for related trials [$\chi^2(9) = 17.8$, $p < .05$]. Post hoc tests, however, did not show any differences in the simple effect of Block across the prime types, or in the simple effect of Prime across the blocks. None of these comparisons approached the significance threshold.

In Experiment 2, RT analyses revealed a significant main effect of Block for related trials [$\chi^2(3) = 29.3$, $p < .001$]. Post hoc tests showed that this was due to slower responses in Blocks 1 (M = 354.9, SD = 135.5), 2 (M = 347.7, SD = 127.4), and 3 (M = 342.9, SD = 143.9) than in Block 4 (M = 326.1, SD = 134.9), with no significant differences among the first three blocks. There was also a significant main effect of Block for unrelated trials [$\chi^2(3) = 83.8$, $p < .001$]. Post hoc tests showed that this was due to slower responses in Block 1 (M = 394.3, SD = 150.9) than in Blocks 2 (M = 369.8, SD = 144.7), 3 (M = 357.8, SD = 168.1), and 4 (M = 349.4, SD = 150.5), as well as slower responses in Block 2 than 4. Regarding the EEG analyses, there were significant main effects of Block in the target-window for some of the channels (FPz, F5, FT8, C6, TP8, P3, P9, PO7; all ps < .05). These effects, however, were unreliable with respect to scalp topography (i.e., they did not extend to neighbouring channels) and did not show any significant differences in post hoc tests. Taken together, these results indicated that neither practice nor prime-word repetition seemed to have a consistent impact on task performance.

It is somewhat surprising that there were very weak practice effects in the present study. As in most studies, we would expect to observe a gradual improvement in performance on each consecutive block due to general practice with the task, both on related and unrelated trials and regardless of the manipulations of ambiguity. One possible explanation for why this was not the case is that practice effects may have already occurred during the practice block. It will be recalled that we used quite an extensive practice block (N = 32) with feedback prior to each experiment. Perhaps participants had so much training with the task during this block that there were no further substantial benefits to their performance during the experimental blocks. Note, however, that this explanation remains speculative since our study was not designed to produce and explore practice effects, but only controlled for these.

The results for Block also indicated that having responded to a homonym in one meaning did not affect the processing of that word on a later trial instantiating the other meaning. Our finding is consistent with a number of notable demonstrations that repetition priming arises only when the multiple presentations of ambiguous words use the same meaning (Bainbridge, Lewandowsky, & Kirsner, 1993; Binder & Morris, 1995; Copland, 2006; Maciejewski, Rodd, Mon-Williams, & Klepousniotou, 2019; Masson & Freedman, 1990; Simpson & Kellas, 1989). For example, Binder and Morris (1995) found shorter gaze durations on the second presentation of homonyms within the same passage of text when the previous presentation used the same meaning, but not when it used the alternative meaning. Our finding is also consistent with more recent investigations into relatively long-term word-meaning priming (Betts, Gilber, Cai, Okedara, & Rodd, 2018; Gilbert, Davis, Gaskell, & Rodd, 2018; Rodd, Lopez Cutrin, Kirsch, Millar, & Davis, 2013). In particular, Betts et al. (2018) found that while multiple encounters with an ambiguous word in the same meaning increase the availability of that meaning during later processing, multiple encounters in different meanings cancel each other out and produce no priming. Overall, then, it appears that although the present study involved multiple presentations of the same ambiguous word, it did not create the conditions necessary for repetition or word-meaning priming. This is because the presentations instantiated different meanings on related trials (e.g., “fan-cheer” followed by “fan-breeze”) or no specific meaning on unrelated trials (e.g., “fan-snake” followed by “fan-cancel”).

2.2 Response-accuracy analyses with covariates

We conducted additional analyses on accuracy data for related trials in Experiments 1a and 1b. These analyses were the same as those presented in the manuscript but included properties of the prime and the target as covariates. The aim was to replicate the results of our main analyses while taking into account some of the inherent differences in our stimuli – in particular, lower prime-target relatedness for unbalanced homonyms in the LF meaning and the use of different types of semantic relationship. Each of the variables used for group-level matching of primes and targets was considered for inclusion. However, to prevent model over-fitting, we included only those variables that significantly correlated with error rates. For Experiment 1a, these were syntactic ambiguity (i.e., whether the different meanings of words corresponded to the same parts of speech) at the prime level as well as prime-target relatedness, type of semantic relationship (i.e., category membership, action-recipient relationship, properties, synonymy, or antonymy), and number of orthographic neighbors at the target level. For Experiment 1b, these were syntactic ambiguity at the prime level as well as prime-target relatedness and type of semantic relationship at the target level.

The effects of Prime and Target remained significant when these variables were taken into account. In Experiment 1a, there was a significant main effect of Prime [$\chi^2(3) = 39.0$, $p < .001$], with less accurate responses to both balanced ($p < .001$) and unbalanced homonyms ($p < .001$) than to non-homonyms. Responses were generally less accurate to LF-meaning than HF-meaning targets, and this main effect of Target [$\chi^2(1) = 20.5$, $p < .001$] interacted with Prime [$\chi^2(3) = 16.9$, $p < .001$]. Relative to both targets of non-homonyms, responses were less accurate to the LF-meaning targets of balanced ($p < .01$) and unbalanced homonyms ($p < .01$) and the HF-meaning targets of balanced homonyms ($p < .01$), but not to the HF-meaning targets of unbalanced homonyms ($p = .09$).

The results of Experiment 1b were similar. There was a significant main effect of Prime [$\chi^2(3) = 60.2$, $p < .001$], with less accurate responses to both balanced ($p < .001$) and unbalanced homonyms ($p < .001$) than to non-homonyms. Responses were generally less accurate to LF-meaning than HF-meaning targets, and this main effect of Target [$\chi^2(1) = 23.7$, $p < .001$] interacted with Prime [$\chi^2(3) = 21.1$, $p < .001$]. Relative to both targets of non-homonyms, responses were less accurate to the LF-meaning targets of balanced ($p < .01$) and unbalanced homonyms ($p < .01$) as well as the HF-meaning targets of balanced ($p < .01$) and unbalanced homonyms ($p < .01$). Overall, then, these analyses confirmed that the effects in error rates were due to the homonymous status of the words that our experiments explicitly manipulated, rather than due to unsystematic differences in the properties of the items.

2.3 Response-latency analyses with covariates

We also conducted additional analyses on RT data. The rationale was that due to a large number of errors for homonyms in the LF meaning, these conditions involved subsets of items that were no longer matched with their non-homonymous counterparts. Each of the variables used for group-level matching of primes and targets was considered for inclusion. However, to prevent model over-fitting, we included only those variables that significantly correlated with RTs. For Experiment 1a, the covariates were the number of related senses, age of acquisition, number of orthographic neighbors, imageability, and syntactic ambiguity at the prime level as well as prime-target relatedness, type of semantic relationship, number of orthographic neighbors, imageability, subjective familiarity, and age of acquisition at the target level. For Experiment 1b, the covariates were the number of related senses and syntactic ambiguity at the prime level as well as prime-target relatedness, type of semantic relationship, and imageability at the target level.

The effects of Prime and Target remained significant when these variables were taken into account. In Experiment 1a, there was a significant main effect of Prime [$\chi^2(3) = 15.1$, $p < .01$], with slower responses to both balanced ($p < .001$) and unbalanced homonyms ($p < .001$) than to non-homonyms. Responses were generally slower to LF-meaning than HF-meaning targets, and this main effect of Target [$\chi^2(1) = 4.2$, $p < .05$] interacted with Prime [$\chi^2(3) = 17.0$, $p < .001$]. Relative to both targets of non-homonyms, responses were slower to the LF-meaning targets of balanced ($p < .001$) and unbalanced homonyms ($p < .001$) and the HF-meaning targets of balanced homonyms ($p < .05$), but not to the HF-meaning targets of unbalanced homonyms ($p = .81$).

The results of Experiment 1b were similar. There was a significant main effect of Prime [$\chi^2(3) = 23.7$, $p < .001$], with slower responses to both balanced ($p < .001$) and unbalanced homonyms ($p < .001$) than to non-homonyms. Responses were generally slower to LF-meaning than HF-meaning targets, and this main effect of Target [$\chi^2(1) = 11.7$, $p < .001$] interacted with Prime [$\chi^2(3) = 22.4$, $p < .001$]. Relative to both targets of non-homonyms, responses were slower to the LF-meaning targets of balanced ($p < .001$) and unbalanced homonyms ($p < .001$) and the HF-meaning targets of balanced homonyms ($p < .05$), but not to the HF-meaning targets of unbalanced homonyms ($p = .88$). Overall, then, these analyses confirmed that the effects in RTs were due to the homonymous status of the words that our experiments explicitly manipulated, rather than due to unsystematic differences in the controlled properties of the items.

2.4 Analyses without unbalanced homonyms with lesser-known LF meanings

It will be recalled that we used only those unbalanced homonyms whose LF meanings were known by at least 75% of the participants in our norming study (Maciejewski & Klepousniotou, 2016). Although this indicated that most participants in the present study must have used and/or encountered the LF meanings of the unbalanced homonyms before, there was still a possibility that our results for these words were driven by a small subgroup of participants who simply did not know the meanings. In order to address this issue, we conducted additional analyses for Experiments 1a and 1b that excluded unbalanced homonyms whose LF meanings were not known by at least 90% of the participants in our norming study[3]. There were

[3] Higher thresholds would greatly reduce the number of items and reliability of results. For example, only 7 out of the 28 items would be included if the threshold was 95%.

11 words that did not meet this criterion, all of which were associated with very low accuracy on LF-meaning trials (“fry” “flock”, “spray”, “wax”, “rail”, “ear”, “sheer”, fleet”, “host”, “pit”, & “chord”). The analyses were otherwise the same as those presented in the manuscript.

In Experiment 1a, there was a significant main effect of Prime in both error rates [$\chi^2(3) = 57.1$, $p < .001$] and RTs [$\chi^2(3) = 32.8$, $p < .001$]. Planned contrasts showed less accurate and slower responses to both balanced (both ps < .001) and unbalanced homonyms (both ps < .001) than to non-homonyms (for descriptive statistics, see Table 4 below). Responses were generally less accurate and slower to LF-meaning than HF-meaning targets, and this main effect of Target [errors: $\chi^2(1) = 23.6$, $p < .001$; RTs: $\chi^2(1) = 7.3$, $p < .01$] interacted with Prime [errors: $\chi^2(3) = 25.6$, $p < .001$; RTs: $\chi^2(3) = 17.4$, $p < .001$]. Relative to both targets of non-homonyms, responses were less accurate and slower to the LF-meaning targets of balanced (both ps < .01) and unbalanced homonyms (both ps < .01) and the HF-meaning targets of balanced homonyms (both ps < .01), but not to the HF-meaning targets of unbalanced homonyms (errors: p = .24; RTs: p = .30).

Table 4. Experiment 1a: Subject means of % error rates and untransformed RTs in ms after removing 11 unbalanced homonyms with unfamiliar LF meanings.

Prime	HF-meaning target		LF-meaning-target	
	Error rate	RT	Error rate	RT
Balanced homonym	29.3 (12.4)	627.3 (95.9)	49.0 (13.5)	654.6 (101.2)
Unbalanced homonym	21.6 (15.9)	611.9 (96.0)	67.4 (15.6)	707.1 (133.7)
Non-homonym	18.2 (11.0)	605.2 (87.5)	21.5 (11.4)	603.3 (87.8)

Note. Standard deviations are given in the parentheses.

The results of Experiment 1b were similar. There was a significant main effect of Prime [errors: $\chi^2(3) = 82.4$, $p < .001$; RTs: $\chi^2(3) = 35.8$, $p < .001$]. Planned contrasts showed less accurate and slower responses to both balanced (both ps < .001) and unbalanced homonyms (both ps < .001) than to non-homonyms (for descriptive statistics, see Table 5 below). Responses were generally less accurate and slower to LF-meaning than HF-meaning targets, and this main effect of Target [errors: $\chi^2(1) = 26.2$, $p < .001$; $\chi^2(1) = 14.8$, $p < .001$] interacted with Prime [errors: $\chi^2(3) = 30.8$, $p < .001$; $\chi^2(3) = 31.4$, $p < .001$]. Relative to both targets of non-homonyms, responses were less accurate and slower to the LF-meaning targets of balanced (both ps < .01) and unbalanced homonyms (both ps < .01) and the HF-meaning targets of balanced homonyms (both ps < .05), but not to the HF-meaning targets of unbalanced homonyms (errors: p = .61; RTs: p = .79). Overall, then, these analyses showed that high error rates for unbalanced homonyms in the LF-meaning condition persisted even after removing some of the unbalanced homonyms with lesser-known LF meanings. This confirms that the results in that condition were not due to participants' lack of knowledge of the LF meanings.

Table 5. Experiment 1b: Subject means of % error rates and untransformed RTs in ms after removing 11 unbalanced homonyms with unfamiliar LF meanings.

Prime	HF-meaning target		LF-meaning-target	
	Error rate	RT	Error rate	RT
Balanced homonym	29.4 (11.2)	760.2 (94.7)	51.5 (16.5)	804.4 (100.2)
Unbalanced homonym	23.5 (10.9)	723.4 (90.6)	78.3 (19.1)	897.5 (133.5)
Non-homonym	13.7 (8.5)	729.8 (99.0)	17.4 (7.6)	731.5 (95.9)

Note. Standard deviations are given in the parentheses.

2.5 Analyses without low-accuracy items

The analyses presented below were the same as those in the manuscript but excluded prime-target word pairs with accuracy below 30%. The aim was to confirm that our results for related trials were not driven by a subset of items that were more difficult and/or different. This was particularly important for word pairs with obscure semantic relationship (e.g., “palm-exotic”) as well as primes that typically require a particle to instantiate a particular meaning (e.g., “egg” vs. “egg on” in relation to “urge”), both of which seemed to be associated with low accuracy. In Experiment 1a, the analyses excluded “egg-urge”, “fry-infant”, “pen-farmer”, “ray-fish”, “flock-fabric”, “pine-desire”, “corn-toe”, “shed-skin”, “palm-exotic”, “chord-circle”, “ear-cereal”, “pool-resource”, “rail-protest”, “hook-trout”, and “pulse-seed” (11 out of the 15 items involved unbalanced homonyms in the LF meaning). In Experiment 1b, the analyses excluded most of the above (except for “palm-exotic”, “pool-resource”, and “hook-trout”) as well as “lock-comb”, “forge-advance”, “temple-brow”, “stern-boat”, “toll-levy”, “wax-moon”, “prop-pillar”, “host-plenty”, “mint-coin”, “utter-absolute”, “hide-animal”, “mate-chess”, “pump-shoes”, and “jam-tight” (18 out of the 26 items involved unbalanced homonyms in the LF meaning).In Experiment 1a, there was a significant main effect of Prime in both error rates [$\chi^2(3) = 47.2$, $p < .001$] and RTs [$\chi^2(3) = 37.6$, $p < .001$]. Planned contrasts showed less accurate and slower responses to both balanced (both ps < .001) and unbalanced homonyms (both ps < .001) than to non-homonyms (for descriptive statistics, see Table 6 below). Responses were generally less accurate and slower to LF-meaning than HF-meaning targets, and this main effect of Target [errors: $\chi^2(1) = 20.8$, $p < .001$; RTs: $\chi^2(1) = 20.7$, $p < .01$] interacted with Prime [errors: $\chi^2(3) = 21.7$, $p < .001$; RTs: $\chi^2(3) = 30.8$, $p < .001$]. Relative to both targets of non-homonyms, responses were less accurate and slower to the LF-meaning targets of balanced (both ps < .01) and unbalanced homonyms (both ps < .01) and the HF-meaning targets of balanced homonyms (errors: p < .01; RTs: p < .05), but not to the HF-meaning targets of unbalanced homonyms (errors: p = .29; RTs: p = .48).

Table 6. Experiment 1a: Subject means of % error rates and untransformed RTs in ms after removing 15 prime-target word pairs with low accuracy.

Prime	HF-meaning target		LF-meaning-target	
	Error rate	RT	Error rate	RT
Balanced homonym	29.3 (12.4)	627.4 (95.9)	44.4 (14.4)	653.7 (102.1)
Unbalanced homonym	20.0 (13.7)	611.3 (88.4)	55.8 (18.7)	709.5 (129.9)
Non-homonym	16.7 (11.2)	604.0 (87.5)	19.1 (11.8)	601.8 (87.8)

Note. Standard deviations are given in the parentheses.

The results of Experiment 1b were similar. There was a significant main effect of Prime [errors: $\chi^2(3) = 50.2$, $p < .001$; RTs: $\chi^2(3) = 21.0$, $p < .001$]. Planned contrasts showed less accurate and slower responses to both balanced (both ps < .001) and unbalanced homonyms (both ps < .001) than to non-homonyms (for descriptive statistics, see Table 7 below). Responses were generally less accurate and slower to LF-meaning than HF-meaning targets, and this main effect of Target [errors: $\chi^2(1) = 20.7$, $p < .001$; $\chi^2(1) = 14.4$, $p < .001$] interacted with Prime [errors: $\chi^2(3) = 20.9$, $p < .001$; $\chi^2(3) = 28.2$, $p < .001$]. Relative to both targets of non-homonyms, responses were less accurate and slower to the LF-meaning targets of balanced (both ps < .01) and unbalanced homonyms (both ps < .01) and less accurate to the HF-meaning targets of balanced homonyms (errors: p < .01; RTs: p = .31), but not to the HF-meaning targets of unbalanced homonyms (errors: p = .07; RTs: p = .54). Overall, then, these analyses showed that high error rates persisted and the effects of ambiguity remained significant when low-accuracy items were excluded. This indicates that our results were not driven by a subset of items that were in some way different or difficult to respond to, including distant semantic associates and words that require a specific particle to instantiate one of their meanings.

Table 7. Experiment 1b: Subject means of % error rates and untransformed RTs in ms after removing 26 prime-target word pairs with low accuracy.

Prime	HF-meaning target		LF-meaning-target	
	Error rate	RT	Error rate	RT
Balanced homonym	25.2 (11.3)	748.8 (96.8)	45.0 (19.8)	796.3 (106.2)
Unbalanced homonym	19.8 (9.8)	720.8 (92.8)	65.2 (24.7)	862.8 (160.6)
Non-homonym	13.7 (8.5)	729.8 (99.0)	17.4 (7.6)	731.5 (95.9)

Note. Standard deviations are given in the parentheses.

3 Test results from EEG analyses

The following tables provide likelihood-ratio (χ^2) test results from the prime- and target-window analyses in Experiment 2 (Tables 8 & 9, respectively). Results are given per each channel (from medial to lateral, starting with anterior channels) and effect.

Table 8. Experiment 2: Test results from the prime-window analyses.

Channel	Effect	Test result
FPz	Prime × Time	$\chi^2(9) = 28.8$, $p < .001$
FP1	Prime × Time	$\chi^2(9) = 36.0$, $p < .001$
FP2	Prime × Time	$\chi^2(9) = 26.1$, $p < .01$
AFz	Prime × Time	$\chi^2(9) = 32.9$, $p < .001$
AF3	Prime × Time	$\chi^2(9) = 33.9$, $p < .001$

AF4	Prime × Time	$\chi^2(9) = 27.1, p < .01$
AF7	Prime × Time	$\chi^2(9) = 36.8, p < .001$
AF8	Prime × Time	$\chi^2(9) = 22.4, p < .01$
Fz	Prime × Time	$\chi^2(9) = 35.9, p < .001$
F1	Prime × Time	$\chi^2(9) = 39.4, p < .001$
F2	Prime × Time	$\chi^2(9) = 31.5, p < .001$
F3	Prime × Time	$\chi^2(9) = 28.5, p < .001$
F4	Prime × Time	$\chi^2(9) = 42.8, p < .001$
F5	Prime × Time	$\chi^2(9) = 29.7, p < .001$
F6	Prime × Time	$\chi^2(9) = 42.0, p < .001$
F7	Prime × Time	$\chi^2(9) = 26.0, p < .01$
F8	Prime × Time	$\chi^2(9) = 32.5, p < .001$
FCz	Prime × Time	$\chi^2(9) = 30.2, p < .001$
FC1	Prime × Time	$\chi^2(9) = 25.7, p < .01$
FC2	Prime × Time	$\chi^2(9) = 34.0, p < .001$
FC3	Prime × Time	$\chi^2(9) = 24.3, p < .01$
FC4	Prime × Time	$\chi^2(9) = 35.0, p < .001$
FC5	Prime × Time	$\chi^2(9) = 17.3, p < .05$
FC6	Prime × Time	$\chi^2(9) = 42.6, p < .001$
FT7	Prime × Time	$\chi^2(9) = 27.0, p < .01$
FT8	Prime × Time	$\chi^2(9) = 22.8, p < .01$
Cz	Prime × Time	$\chi^2(9) = 33.0, p < .001$
C1	Prime × Time	$\chi^2(9) = 26.6, p < .01$
C2	Prime × Time	$\chi^2(9) = 34.2, p < .001$
C3	Prime × Time	$\chi^2(9) = 25.6, p < .01$
C4	Prime × Time	$\chi^2(9) = 26.5, p < .01$
C5	Prime × Time	$\chi^2(9) = 21.6, p < .01$
C6	Prime × Time	$\chi^2(9) = 34.4, p < .001$
T7	Prime × Time	$\chi^2(9) = 13.0, p = .16$
T8	Prime × Time	$\chi^2(9) = 19.4, p < .05$

CPz	Prime × Time	$\chi^2(9) = 27.7, p < .01$
CP1	Prime × Time	$\chi^2(9) = 22.6, p < .01$
CP2	Prime × Time	$\chi^2(9) = 43.2, p < .001$
CP3	Prime × Time	$\chi^2(9) = 24.1, p < .01$
CP4	Prime × Time	$\chi^2(9) = 39.1, p < .001$
CP5	Prime × Time	$\chi^2(9) = 17.2, p < .05$
CP6	Prime × Time	$\chi^2(9) = 29.6\ p < .001$
TP7	Prime × Time	$\chi^2(9) = 11.5, p = .24$
TP8	Prime × Time	$\chi^2(9) = 17.6, p < .05$
Pz	Prime × Time	$\chi^2(9) = 20.1, p < .05$
P1	Prime × Time	$\chi^2(9) = 28.0, p < .001$
P2	Prime × Time	$\chi^2(9) = 32.6, p < .001$
P3	Prime × Time	$\chi^2(9) = 26.3, p < .01$
P4	Prime × Time	$\chi^2(9) = 44.5, p < .001$
P5	Prime × Time	$\chi^2(9) = 20.5, p < .05$
P6	Prime × Time	$\chi^2(9) = 49.1, p < .001$
P7	Prime × Time	$\chi^2(9) = 12.0, p < .05$
P8	Prime × Time	$\chi^2(9) = 28.4, p < .001$
P9	Prime × Time	$\chi^2(9) = 6.1, p = .73$
P10	Prime × Time	$\chi^2(9) = 23.0, p < .01$
POz	Prime × Time	$\chi^2(9) = 22.6, p < .01$
PO3	Prime × Time	$\chi^2(9) = 17.2, p < .05$
PO4	Prime × Time	$\chi^2(9) = 36.5, p < .001$
PO7	Prime × Time	$\chi^2(9) = 18.7, p < .05$
PO8	Prime × Time	$\chi^2(9) = 47.1, p < .001$
Oz	Prime × Time	$\chi^2(9) = 17.6, p < .05$
O1	Prime × Time	$\chi^2(9) =18.2, p < .05$
O2	Prime × Time	$\chi^2(9) = 48.2, p < .001$
Iz	Prime × Time	$\chi^2(9) = 17.2, p < .05$

Table 9. Experiment 2: Test results from the target-window analyses.

Channel	Effect	Test result
FPz	Target	$\chi^2(3) = 3.2, p = .36$
	Target × Time	$\chi^2(9) = 20.7, p < .05$
	Target × Time × Prime	$\chi^2(9) = 19.3, p < .05$
FP1	Target	$\chi^2(3) = 3.1, p = .38$
	Target × Time	$\chi^2(9) = 18.3, p < .05$
	Target × Time × Prime	$\chi^2(9) = 22.2, p < .05$
FP2	Target	$\chi^2(3) = 2.6, p = .46$
	Target × Time	$\chi^2(9) = 22.0, p < .01$
	Target × Time × Prime	$\chi^2(9) = 24.4, p < .01$
AFz	Target	$\chi^2(3) = 4.3, p = .23$
	Target × Time	$\chi^2(9) = 24.7, p < .01$
	Target × Time × Prime	$\chi^2(9) = 25.9, p < .01$
AF3	Target	$\chi^2(3) = 5.1, p = .17$
	Target × Time	$\chi^2(9) = 20.6, p < .05$
	Target × Time × Prime	$\chi^2(9) = 24.4, p < .01$
AF4	Target	$\chi^2(3) = 4.0, p = .26$
	Target × Time	$\chi^2(9) = 19.9, p < .05$
	Target × Time × Prime	$\chi^2(9) = 27.1, p < .01$
AF7	Target	$\chi^2(3) = 3.7, p = .30$
	Target × Time	$\chi^2(9) = 18.8, p < .05$
	Target × Time × Prime	$\chi^2(9) = 17.6, p < .05$
AF8	Target	$\chi^2(3) = 1.6, p = .66$
	Target × Time	$\chi^2(9) = 17.5, p < .05$
	Target × Time × Prime	$\chi^2(9) = 18.9, p < .05$
Fz	Target	$\chi^2(3) = 5.8, p = .12$
	Target × Time	$\chi^2(9) = 25.8, p < .01$
	Target × Time × Prime	$\chi^2(9) = 30.0, p < .001$
F1	Target	$\chi^2(3) = 4.8, p = .19$

	Target × Time	$\chi^2(9) = 26.3, p < .01$
	Target × Time × Prime	$\chi^2(9) = 42.7, p < .001$
F2	Target	$\chi^2(3) = 5.4, p = .14$
	Target × Time	$\chi^2(9) = 26.9, p < .01$
	Target × Time × Prime	$\chi^2(9) = 31.8, p < .001$
F3	Target	$\chi^2(3) = 5.1, p = .17$
	Target × Time	$\chi^2(9) = 21.1, p < .05$
	Target × Time × Prime	$\chi^2(9) = 26.6, p < .05$
F4	Target	$\chi^2(3) = 2.2, p = .53$
	Target × Time	$\chi^2(9) = 19.5, p < .05$
	Target × Time × Prime	$\chi^2(9) = 26.4, p < .05$
F5	Target	$\chi^2(3) = 3.7, p = .30$
	Target × Time	$\chi^2(9) = 20.3, p < .05$
	Target × Time × Prime	$\chi^2(9) = 22.1, p < .01$
F6	Target	$\chi^2(3) = 2.8, p = .42$
	Target × Time	$\chi^2(9) = 30.2, p < .001$
	Target × Time × Prime	$\chi^2(9) = 28.6, p < .001$
F7	Target	$\chi^2(3) = 3.5, p = .32$
	Target × Time	$\chi^2(9) = 18.6, p < .05$
	Target × Time × Prime	$\chi^2(9) = 31.1, p < .001$
F8	Target	$\chi^2(3) = 3.9, p = .27$
	Target × Time	$\chi^2(9) = 19.1, p < .05$
	Target × Time × Prime	$\chi^2(9) = 25.4, p < .05$
FCz	Target	$\chi^2(3) = 8.5, p < .05$
	Target × Time	$\chi^2(9) = 25.9, p < .01$
	Target × Time × Prime	$\chi^2(9) = 36.7, p < .001$
FC1	Target	$\chi^2(3) = 8.4, p < .05$
	Target × Time	$\chi^2(9) = 27.7, p < .01$
	Target × Time × Prime	$\chi^2(9) = 39.1, p < .001$
FC2	Target	$\chi^2(3) = 9.0, p < .05$

	Target × Time	$\chi^2(9) = 24.6, p < .01$
	Target × Time × Prime	$\chi^2(9) = 37.7, p < .001$
FC3	Target	$\chi^2(3) = 7.3, p = .06$
	Target × Time	$\chi^2(9) = 22.0, p < .01$
	Target × Time × Prime	$\chi^2(9) = 41.6, p < .001$
FC4	Target	$\chi^2(3) = 6.9, p = .08$
	Target × Time	$\chi^2(9) = 22.4, p < .01$
	Target × Time × Prime	$\chi^2(9) = 33.3, p < .001$
FC5	Target	$\chi^2(3) = 7.1, p = .07$
	Target × Time	$\chi^2(9) = 20.9, p < .05$
	Target × Time × Prime	$\chi^2(9) = 29.7, p < .001$
FC6	Target	$\chi^2(3) = 5.6, p = .13$
	Target × Time	$\chi^2(9) = 21.8, p < .01$
	Target × Time × Prime	$\chi^2(9) = 23.6, p < .01$
FT7	Target	$\chi^2(3) = 3.4, p = .33$
	Target × Time	$\chi^2(9) = 17.3, p < .05$
	Target × Time × Prime	$\chi^2(9) = 18.0, p < .05$
FT8	Target	$\chi^2(3) = 5.2, p = .16$
	Target × Time	$\chi^2(9) = 30.4, p < .001$
	Target × Time × Prime	$\chi^2(9) = 17.1, p < .05$
Cz	Target	$\chi^2(3) = 10.0, p < .05$
	Target × Time	$\chi^2(9) = 29.1, p < .001$
	Target × Time × Prime	$\chi^2(9) = 45.5, p < .001$
C1	Target	$\chi^2(3) = 9.7, p < .05$
	Target × Time	$\chi^2(9) = 30.2, p < .001$
	Target × Time × Prime	$\chi^2(9) = 45.7, p < .001$
C2	Target	$\chi^2(3) = 11.1, p < .05$
	Target × Time	$\chi^2(9) = 25.5, p < .01$
	Target × Time × Prime	$\chi^2(9) = 49.6, p < .001$
C3	Target	$\chi^2(3) = 9.8, p < .05$

	Target × Time	$\chi^2(9) = 31.3, p < .001$
	Target × Time × Prime	$\chi^2(9) = 42.2, p < .001$
C4	Target	$\chi^2(3) = 10.6, p < .05$
	Target × Time	$\chi^2(9) = 30.0, p < .001$
	Target × Time × Prime	$\chi^2(9) = 41.8, p < .001$
C5	Target	$\chi^2(3) = 9.9, p < .05$
	Target × Time	$\chi^2(9) = 23.2, p < .01$
	Target × Time × Prime	$\chi^2(9) = 47.0, p < .001$
C6	Target	$\chi^2(3) = 6.7, p = .08$
	Target × Time	$\chi^2(9) = 30.2, p < .001$
	Target × Time × Prime	$\chi^2(9) = 33.2, p < .001$
T7	Target	$\chi^2(3) = 3.9, p = .27$
	Target × Time	$\chi^2(9) = 30.2, p < .001$
	Target × Time × Prime	$\chi^2(9) = 15.0, p = .09$
T8	Target	$\chi^2(3) = 3.5, p = .32$
	Target × Time	$\chi^2(9) = 25.8, p < .01$
	Target × Time × Prime	$\chi^2(9) = 17.4, p < .05$
CPz	Target	$\chi^2(3) = 14.2, p < .01$
	Target × Time	$\chi^2(9) = 23.0, p < .01$
	Target × Time × Prime	$\chi^2(9) = 47.3, p < .001$
CP1	Target	$\chi^2(3) = 13.9, p < .01$
	Target × Time	$\chi^2(9) = 30.6, p < .001$
	Target × Time × Prime	$\chi^2(9) = 51.1, p < .001$
CP2	Target	$\chi^2(3) = 14.2, p < .01$
	Target × Time	$\chi^2(9) = 27.0, p < .05$
	Target × Time × Prime	$\chi^2(9) = 48.8, p < .001$
CP3	Target	$\chi^2(3) = 15.4, p < .01$
	Target × Time	$\chi^2(9) = 42.6, p < .001$
	Target × Time × Prime	$\chi^2(9) = 46.9, p < .001$
CP4	Target	$\chi^2(3) = 11.8, p < .01$

	Target × Time	$\chi^2(9) = 47.1, p < .001$
	Target × Time × Prime	$\chi^2(9) = 41.5, p < .001$
CP5	Target	$\chi^2(3) = 12.2, p < .01$
	Target × Time	$\chi^2(9) = 35.2, p < .001$
	Target × Time × Prime	$\chi^2(9) = 33.0, p < .001$
CP6	Target	$\chi^2(3) = 11.3, p < .01$
	Target × Time	$\chi^2(9) = 21.7, p < .01$
	Target × Time × Prime	$\chi^2(9) = 39.9, p < .001$
TP7	Target	$\chi^2(3) = 4.2, p = .24$
	Target × Time	$\chi^2(9) = 20.4, p < .05$
	Target × Time × Prime	$\chi^2(9) = 11.3, p = .26$
TP8	Target	$\chi^2(3) = 2.2, p = .53$
	Target × Time	$\chi^2(9) = 25.5, p < .01$
	Target × Time × Prime	$\chi^2(9) = 17.7, p < .05$
Pz	Target	$\chi^2(3) = 21.3, p < .001$
	Target × Time	$\chi^2(9) = 29.9, p < .001$
	Target × Time × Prime	$\chi^2(9) = 53.2, p < .001$
P1	Target	$\chi^2(3) = 18.0, p < .001$
	Target × Time	$\chi^2(9) = 36.7, p < .001$
	Target × Time × Prime	$\chi^2(9) = 45.6, p < .001$
P2	Target	$\chi^2(3) = 17.9, p < .001$
	Target × Time	$\chi^2(9) = 33.3, p < .001$
	Target × Time × Prime	$\chi^2(9) = 44.4, p < .001$
P3	Target	$\chi^2(3) = 19.3, p < .001$
	Target × Time	$\chi^2(9) = 30.0, p < .001$
	Target × Time × Prime	$\chi^2(9) = 48.5, p < .001$
P4	Target	$\chi^2(3) = 19.1, p < .001$
	Target × Time	$\chi^2(9) = 29.7, p < .001$
	Target × Time × Prime	$\chi^2(9) = 47.1, p < .001$
P5	Target	$\chi^2(3) = 16.2, p < .01$

	Target × Time	$\chi^2(9) = 29.0, p < .001$
	Target × Time × Prime	$\chi^2(9) = 44.0, p < .001$
P6	Target	$\chi^2(3) = 14.3, p < .05$
	Target × Time	$\chi^2(9) = 26.6, p < .01$
	Target × Time × Prime	$\chi^2(9) = 41.2, p < .001$
P7	Target	$\chi^2(3) = 6.7, p = .08$
	Target × Time	$\chi^2(9) = 17.9, p < .05$
	Target × Time × Prime	$\chi^2(9) = 15.5, p = .08$
P8	Target	$\chi^2(3) = 8.3, p < .05$
	Target × Time	$\chi^2(9) = 24.0, p < .01$
	Target × Time × Prime	$\chi^2(9) = 19.1, p < .05$
P9	Target	$\chi^2(3) = 4.5, p = .21$
	Target × Time	$\chi^2(9) = 15.6, p = .08$
	Target × Time × Prime	$\chi^2(9) = 14.0, p = .12$
P10	Target	$\chi^2(3) = 5.9, p = .12$
	Target × Time	$\chi^2(9) = 18.8, p < .05$
	Target × Time × Prime	$\chi^2(9) = 18.0, p < .05$
POz	Target	$\chi^2(3) = 17.4, p < .001$
	Target × Time	$\chi^2(9) = 27.7, p < .01$
	Target × Time × Prime	$\chi^2(9) = 42.2, p < .001$
PO3	Target	$\chi^2(3) = 15.1, p < .01$
	Target × Time	$\chi^2(9) = 25.6, p < .01$
	Target × Time × Prime	$\chi^2(9) = 36.3, p < .001$
PO4	Target	$\chi^2(3) = 10.6, p < .05$
	Target × Time	$\chi^2(9) = 29.9, p < .001$
	Target × Time × Prime	$\chi^2(9) = 30.4, p < .001$
PO7	Target	$\chi^2(3) = 7.4, p = .06$
	Target × Time	$\chi^2(9) = 22.6, p < .01$
	Target × Time × Prime	$\chi^2(9) = 27.3, p < .01$
PO8	Target	$\chi^2(3) = 8.1, p < .05$

	Target × Time	$\chi^2(9) = 22.2, p < .01$
	Target × Time × Prime	$\chi^2(9) = 26.1, p < .01$
Oz	Target	$\chi^2(3) = 8.7, p < .05$
	Target × Time	$\chi^2(9) = 30.1, p < .001$
	Target × Time × Prime	$\chi^2(9) = 20.1, p < .05$
O1	Target	$\chi^2(3) = 9.4, p < .05$
	Target × Time	$\chi^2(9) = 23.0, p < .01$
	Target × Time × Prime	$\chi^2(9) = 23.5, p < .01$
O2	Target	$\chi^2(3) = 8.2, p < .05$
	Target × Time	$\chi^2(9) = 20.9, p < .05$
	Target × Time × Prime	$\chi^2(9) = 18.7, p < .05$
Iz	Target	$\chi^2(3) = 5.6, p = .13$
	Target × Time	$\chi^2(9) = 18.3, p < .05$
	Target × Time × Prime	$\chi^2(9) = 21.4, p < .01$

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