**Syntax and Output for Study 2**

Model 1: A generalized linear mixed-effects regression model was computed in which verb type (harm/force (coded as 0) *versus* neutral filler (coded as 1)) and binding values were included as fixed predictors of the propensity to select subject (coded as 0) *versus* object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (BINDING \* harm\_filler) + (1 | verbID) + (1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

41952.0 42003.2 -20970.0 41940.0 37818

Scaled residuals:

Min 1Q Median 3Q Max

-9.9988 -0.6637 -0.2481 0.6815 5.2177

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 0.8628 0.9289

verbID (Intercept) 1.0811 1.0398

Number of obs: 37824, groups: WorkerID, 788; verbID, 48

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -1.25392 0.26366 -4.756 1.98e-06 \*\*\*

BINDING 0.19328 0.04152 4.655 3.25e-06 \*\*\*

harm\_filler[T.neut] 1.37898 0.31720 4.347 1.38e-05 \*\*\*

BINDING:harm\_filler[T.neut] -0.09645 0.02727 -3.536 0.000405 \*\*\*

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr) BINDING h\_[T.]

BINDING -0.576

hrm\_fll[T.] -0.600 0.101

BINDING:\_[T 0.184 -0.317 -0.314

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -1.7706894 -0.73714511

BINDING 0.1118913 0.27466617

harm\_filler[T.neut] 0.7572762 2.00067604

BINDING:harm\_filler[T.neut] -0.1499002 -0.04299542

Model 2: For harm/force verbs only, a generalized linear mixed-effects regression model was computed for which binding values was included as the fixed predictor of the propensity to select subject (coded as 0) *versus* object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (BINDING) + (1 | verbID) + (1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

21426.6 21458.0 -10709.3 21418.6 18908

Scaled residuals:

Min 1Q Median 3Q Max

-5.6361 -0.6520 -0.3690 0.7248 4.3261

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 1.1894 1.0906

verbID (Intercept) 0.6716 0.8195

Number of obs: 18912, groups: WorkerID, 788; verbID, 24

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -1.37369 0.24556 -5.594 2.22e-08 \*\*\*

BINDING 0.21666 0.04772 4.541 5.61e-06 \*\*\*

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr)

BINDING -0.711

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -1.8549753 -0.8924076

BINDING 0.1231373 0.3101806

Model 3: For neutral, filler verbs only, a generalized linear mixed-effects regression model was computed for which binding values was included as the fixed predictor of the propensity to select subject (coded as 0) *versus* object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (BINDING) + (1 | verbID) + (1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

20538.4 20569.8 -10265.2 20530.4 18908

Scaled residuals:

Min 1Q Median 3Q Max

-6.1113 -0.6791 0.3033 0.6169 4.3378

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 0.7199 0.8485

verbID (Intercept) 1.5495 1.2448

Number of obs: 18912, groups: WorkerID, 788; verbID, 24

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) 0.12990 0.29334 0.443 0.6579

BINDING 0.09227 0.03897 2.368 0.0179 \*

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr)

BINDING -0.485

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -0.44504097 0.7048422

BINDING 0.01588804 0.1686424

Model 4: A generalized linear mixed-effects regression model was computed in which verb type (harm/force (coded as 0) *versus* neutral filler (coded as 1)) and individualizing values were included as fixed predictors of the propensity to select subject (coded as 0) *versus* object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (INDIVIDUALIZING \* harm\_filler) + (1 | verbID) +

(1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

41974.0 42025.2 -20981.0 41962.0 37818

Scaled residuals:

Min 1Q Median 3Q Max

-10.2031 -0.6643 -0.2473 0.6802 5.5685

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 0.8808 0.9385

verbID (Intercept) 1.0819 1.0401

Number of obs: 37824, groups: WorkerID, 788; verbID, 48

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -0.15516 0.33920 -0.457 0.6474

INDIVIDUALIZING -0.08414 0.05633 -1.494 0.1353

harm\_filler[T.neut] 0.71563 0.34673 2.064 0.0390 \*

INDIVIDUALIZING:harm\_filler[T.neut] 0.06674 0.03693 1.807 0.0708 .

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr) INDIVIDUALIZING h\_[T.]

INDIVIDUALIZING -0.772

hrm\_fll[T.] -0.504 0.155

INDIVIDUALIZING: 0.243 -0.314 -0.496

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -0.819990050 0.50966014

INDIVIDUALIZING -0.194549930 0.02626814

harm\_filler[T.neut] 0.036046353 1.39520910

INDIVIDUALIZING:harm\_filler[T.neut] -0.005650464 0.13912256

Model 5: For the harm/force verbs only, binding values, political orientation, gender (0 = male, 1 = female), and religiosity were included as fixed predictors of selecting subject (coded as 0) *versus* object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (BINDING + POLITICS + RELIGION + GENDER) + (1 |

verbID) + (1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

21263.4 21318.3 -10624.7 21249.4 18760

Scaled residuals:

Min 1Q Median 3Q Max

-5.5913 -0.6504 -0.3693 0.7242 4.3988

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 1.1735 1.0833

verbID (Intercept) 0.6776 0.8232

Number of obs: 18767, groups: WorkerID, 782; verbID, 24

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -1.12538 0.33183 -3.391 0.000695 \*\*\*

BINDING 0.23809 0.05720 4.162 3.15e-05 \*\*\*

POLITICS -0.01846 0.03063 -0.603 0.546754

RELIGION -0.03652 0.02369 -1.542 0.123147

GENDER[T.1] -0.18813 0.09011 -2.088 0.036809 \*

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr) BINDIN POLITI RELIGI

BINDING -0.667

POLITICS -0.649 0.306

RELIGION -0.104 -0.355 0.269

GENDER[T.1] -0.065 -0.051 -0.130 -0.101

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -1.77575551 -0.475000955

BINDING 0.12597286 0.350203514

POLITICS -0.07850152 0.041580010

RELIGION -0.08295539 0.009908847

GENDER[T.1] -0.36474191 -0.011525509

Model 6: A generalized linear mixed-effects regression model in which verb type (harm/force (coded as 0) *versus* neutral filler (coded as 1)) and gender condition (male-verbed-female (coded as 0) *versus* female-verbed-male (coded as 1)) were included as fixed predictors of the propensity to select subject (coded as 0) *versus* object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (harm\_filler \* Condition\_MVF0\_FVM1) + (1 | verbID) +

(1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

41656.1 41707.3 -20822.0 41644.1 37818

Scaled residuals:

Min 1Q Median 3Q Max

-9.0835 -0.6599 -0.2415 0.6744 5.1850

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 0.8769 0.9364

verbID (Intercept) 1.0947 1.0463

Number of obs: 37824, groups: WorkerID, 788; verbID, 48

Fixed effects:

Estimate Std. Error z value

(Intercept) -0.85293 0.21871 -3.900

harm\_filler[T.neut] 1.45244 0.30201 4.809

Condition\_MVF0\_FVM1[T.1] 0.62250 0.07515 8.284

harm\_filler[T.neut]:Condition\_MVF0\_FVM1[T.1] -0.87391 0.04926 -17.742

Pr(>|z|)

(Intercept) 9.62e-05 \*\*\*

harm\_filler[T.neut] 1.52e-06 \*\*\*

Condition\_MVF0\_FVM1[T.1] < 2e-16 \*\*\*

harm\_filler[T.neut]:Condition\_MVF0\_FVM1[T.1] < 2e-16 \*\*\*

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr) hr\_[T.] C\_MVF0

hrm\_fll[T.] -0.688

C\_MVF0\_FVM1 -0.166 0.026

h\_[T.]:C\_MV 0.055 -0.081 -0.316

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -1.2815887 -0.4242701

harm\_filler[T.neut] 0.8605093 2.0443798

Condition\_MVF0\_FVM1[T.1] 0.4752095 0.7697883

harm\_filler[T.neut]:Condition\_MVF0\_FVM1[T.1] -0.9704540 -0.7773755

Model 7: For harm/force verbs only, a generalized linear mixed-effects regression model was computed for which gender condition was included as the fixed predictor of selecting subject (coded as 0) versus object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (Condition\_MVF0\_FVM1) + (1 | verbID) + (1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

21380.6 21412.0 -10686.3 21372.6 18908

Scaled residuals:

Min 1Q Median 3Q Max

-5.6067 -0.6535 -0.3669 0.7204 4.6692

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 1.0955 1.0466

verbID (Intercept) 0.6717 0.8196

Number of obs: 18912, groups: WorkerID, 788; verbID, 24

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -0.91258 0.17694 -5.158 2.5e-07 \*\*\*

Condition\_MVF0\_FVM1[T.1] 0.68789 0.08274 8.313 < 2e-16 \*\*\*

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr)

C\_MVF0\_FVM1 -0.228

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -1.2593816 -0.5657865

Condition\_MVF0\_FVM1[T.1] 0.5257115 0.8500606

Model 8: For neutral, filler verbs only, a generalized linear mixed-effects regression model was computed for which gender condition was included as the fixed predictor of selecting subject (coded as 0) versus object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace

Approximation) [glmerMod]

Family: binomial ( logit )

Formula: objectBias ~ (Condition\_MVF0\_FVM1) + (1 | verbID) + (1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

20532.1 20563.5 -10262.0 20524.1 18908

Scaled residuals:

Min 1Q Median 3Q Max

-5.8520 -0.6840 0.3017 0.6166 4.3658

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 0.7115 0.8435

verbID (Intercept) 1.5499 1.2450

Number of obs: 18912, groups: WorkerID, 788; verbID, 24

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) 0.58256 0.25849 2.254 0.024214 \*

Condition\_MVF0\_FVM1[T.1] -0.24214 0.06976 -3.471 0.000519 \*\*\*

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr)

C\_MVF0\_FVM1 -0.130

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) 0.07593227 1.089180

Condition\_MVF0\_FVM1[T.1] -0.37886720 -0.105405

Model 9: For harm/force verbs only, a generalized linear mixed-effects regression model was computed for which gender condition and binding values were included as the fixed predictors of selecting subject (coded as 0) versus object (coded as 1) as the referent. Participant and verb were both included as random effects with random intercepts only.

Generalized linear mixed model fit by maximum likelihood (Laplace Approximation) [glmerMod

]

Family: binomial ( logit )

Formula: objectBias ~ (BINDING + Condition\_MVF0\_FVM1) + (1 | verbID) +

(1 | WorkerID)

Data: DatasetNEW

Control: glmerControl(optimizer = "bobyqa")

AIC BIC logLik deviance df.resid

21361.3 21400.5 -10675.6 21351.3 18907

Scaled residuals:

Min 1Q Median 3Q Max

-5.5351 -0.6506 -0.3676 0.7214 4.4000

Random effects:

Groups Name Variance Std.Dev.

WorkerID (Intercept) 1.0594 1.0293

verbID (Intercept) 0.6717 0.8196

Number of obs: 18912, groups: WorkerID, 788; verbID, 24

Fixed effects:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -1.68456 0.24280 -6.938 3.98e-12 \*\*\*

BINDING 0.21177 0.04552 4.652 3.28e-06 \*\*\*

Condition\_MVF0\_FVM1[T.1] 0.68397 0.08163 8.379 < 2e-16 \*\*\*

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr) BINDIN

BINDING -0.686

C\_MVF0\_FVM1 -0.161 -0.004

> confint(model, parm="beta\_",method="Wald")

2.5 % 97.5 %

(Intercept) -2.1604454 -1.2086818

BINDING 0.1225518 0.3009814

Condition\_MVF0\_FVM1[T.1] 0.5239727 0.8439683