MNLogit Regression Results

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Dep. Variable: tag\_level No. Observations: 112232

Model: MNLogit Df Residuals: 112044

Method: MLE Df Model: 187

Date: Thu, 28 Apr 2022 Pseudo R-squ.: 0.02201

Time: 13:17:08 Log-Likelihood: -7652.4

converged: False LL-Null: -7824.6

LLR p-value: 1.980e-11

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tag\_level=1 coef std err z P |z| [0.025 0.975]

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const -4.3698 0.328 -13.314 0.000 -5.013 -3.727

MIN -0.3197 0.057 -5.605 0.000 -0.431 -0.208

Age\_BMI 0.1223 0.025 4.945 0.000 0.074 0.171

Birth\_year 0.0312 0.028 1.117 0.264 -0.024 0.086

dapar\_3gr 0.1432 0.027 5.311 0.000 0.090 0.196

Educ\_GE11YN 0.0504 0.031 1.643 0.100 -0.010 0.110

Eshkol\_3gr 0.1144 0.026 4.341 0.000 0.063 0.166

Israeli 0.0785 0.093 0.848 0.396 -0.103 0.260

DQB1\*03:01 0.1433 0.118 1.212 0.225 -0.088 0.375

DQB1\*02:01 0.0563 0.156 0.362 0.717 -0.249 0.361

C\*04:01 -0.0481 0.137 -0.351 0.726 -0.317 0.220

DRB1\*11:04 -0.0966 0.141 -0.686 0.493 -0.372 0.179

DRB1\*07:01 -0.0706 0.172 -0.410 0.682 -0.409 0.267

A\*01:01 0.2073 0.116 1.779 0.075 -0.021 0.436

C\*12:03 0.1478 0.152 0.972 0.331 -0.150 0.446

DQB1\*03:02 -0.1148 0.163 -0.702 0.482 -0.435 0.206

A\*02:01 0.0117 0.120 0.098 0.922 -0.223 0.246

C\*07:01 -0.1482 0.143 -1.037 0.300 -0.428 0.132

C\*06:02 0.0982 0.155 0.634 0.526 -0.205 0.402

DQB1\*05:01 0.1915 0.225 0.853 0.394 -0.249 0.632

A\*24:02 -0.0437 0.121 -0.360 0.719 -0.282 0.194

B\*38:01 -0.0291 0.185 -0.158 0.875 -0.391 0.333

A\*26:01 0.0267 0.132 0.202 0.840 -0.232 0.286

DRB1\*04:02 0.2145 0.189 1.136 0.256 -0.156 0.585

DRB1\*03:01 0.0093 0.179 0.052 0.958 -0.341 0.360

C\*08:02 0.5399 0.662 0.816 0.415 -0.757 1.837

B\*14:02 -0.4085 0.666 -0.614 0.539 -1.713 0.896

DRB1\*13:02 -0.2019 0.301 -0.671 0.502 -0.792 0.388

DRB1\*01:02 -0.1151 0.250 -0.461 0.645 -0.605 0.374

B\*18:01 -0.0055 0.170 -0.032 0.974 -0.339 0.328

C\*12:02 0.4678 0.247 1.897 0.058 -0.016 0.951

A\*03:02 0.1297 0.130 0.996 0.319 -0.126 0.385

A\*11:01 0.2350 0.129 1.819 0.069 -0.018 0.488

B\*35:08 -0.0740 0.176 -0.420 0.674 -0.419 0.271

B\*52:01 -0.5817 0.281 -2.072 0.038 -1.132 -0.031

DRB1\*11:01 0.1536 0.144 1.070 0.284 -0.128 0.435

A\*03:01 0.1194 0.131 0.909 0.364 -0.138 0.377

B\*44:03 0.1270 0.171 0.743 0.458 -0.208 0.462

C\*17:01 0.0852 0.268 0.318 0.751 -0.441 0.611

B\*35:02 0.2226 0.179 1.244 0.214 -0.128 0.573

DQB1\*06:03 -0.0161 0.198 -0.081 0.935 -0.404 0.372

B\*13:02 -0.0132 0.194 -0.068 0.946 -0.394 0.367

C\*07:02 -0.0809 0.177 -0.457 0.647 -0.428 0.266

B\*35:01 0.0632 0.175 0.361 0.718 -0.280 0.406

DQB1\*06:01 0.6116 0.331 1.849 0.064 -0.037 1.260

DQB1\*06:04 0.1675 0.306 0.547 0.584 -0.433 0.768

DRB1\*15:02 -0.6995 0.355 -1.970 0.049 -1.396 -0.003

DQB1\*05:03 -0.0591 0.325 -0.182 0.855 -0.695 0.577

B\*08:01 0.1503 0.196 0.768 0.442 -0.233 0.534

DRB1\*04:03 -0.1437 0.197 -0.730 0.465 -0.529 0.242

A\*32:01 -0.0732 0.149 -0.491 0.623 -0.365 0.219

DRB1\*14:01 -0.2179 0.329 -0.663 0.507 -0.862 0.426

B\*51:01 0.0195 0.207 0.094 0.925 -0.386 0.425

B\*41:01 0.0317 0.274 0.115 0.908 -0.506 0.569

DRB1\*15:01 -0.0295 0.302 -0.098 0.922 -0.622 0.563

A\*23:01 0.2217 0.147 1.506 0.132 -0.067 0.510

DRB1\*13:01 -0.0455 0.235 -0.194 0.846 -0.506 0.415

C\*02:02 -0.2467 0.207 -1.191 0.234 -0.653 0.159

B\*49:01 0.0631 0.190 0.333 0.739 -0.309 0.435

DQB1\*06:02 -0.0759 0.312 -0.243 0.808 -0.688 0.536

B\*44:02 0.0400 0.210 0.191 0.849 -0.371 0.451

DRB1\*10:01 -0.2435 0.251 -0.969 0.333 -0.736 0.249

A\*30:01 0.3983 0.147 2.714 0.007 0.111 0.686

B\*50:01 0.0512 0.205 0.249 0.803 -0.351 0.453

A\*33:01 0.1540 0.155 0.994 0.320 -0.150 0.458

A\*29:01 0.2767 0.159 1.742 0.082 -0.035 0.588

B\*07:02 0.1804 0.213 0.847 0.397 -0.237 0.598

A\*68:02 0.0928 0.159 0.583 0.560 -0.219 0.405

A\*02:05 -0.0219 0.170 -0.129 0.897 -0.355 0.312

B\*57:01 0.2146 0.206 1.042 0.298 -0.189 0.618

A\*02:02 0.2553 0.161 1.584 0.113 -0.061 0.571

DQB1\*05:02 -0.0496 0.308 -0.161 0.872 -0.653 0.553

C\*15:02 0.0158 0.212 0.074 0.941 -0.401 0.432

DRB1\*13:03 -0.1367 0.183 -0.748 0.455 -0.495 0.222

C\*05:01 0.0661 0.195 0.339 0.735 -0.316 0.448

C\*15:05 0.4561 0.409 1.115 0.265 -0.346 1.258

A\*30:02 0.1797 0.170 1.060 0.289 -0.153 0.512

C\*01:02 0.0736 0.231 0.319 0.750 -0.379 0.527

B\*07:05 -0.4866 0.423 -1.150 0.250 -1.316 0.343

B\*55:01 -0.0446 0.254 -0.176 0.861 -0.542 0.453

DQB1\*04:02 0.0863 0.279 0.309 0.757 -0.460 0.633

B\*15:17 0.0357 0.217 0.164 0.870 -0.390 0.462

B\*58:01 0.1208 0.241 0.500 0.617 -0.352 0.594

C\*16:04 0.1193 0.197 0.604 0.546 -0.268 0.506

DRB1\*12:01 0.1483 0.178 0.832 0.405 -0.201 0.498

DRB1\*16:01 0.3552 0.319 1.113 0.266 -0.270 0.981

DRB1\*13:05 -0.1823 0.196 -0.929 0.353 -0.567 0.202

A\*68:01 0.1823 0.173 1.055 0.292 -0.156 0.521

B\*41:02 -0.1753 0.314 -0.558 0.577 -0.791 0.441

B\*53:01 -0.0775 0.217 -0.357 0.721 -0.504 0.349

DQB1\*02:02 -0.0544 0.209 -0.260 0.795 -0.465 0.356

C\*03:04 -0.3489 0.290 -1.202 0.229 -0.918 0.220

DQB1\*06:09 0.1232 0.327 0.377 0.706 -0.518 0.764

DRB1\*04:04 0.0877 0.249 0.352 0.725 -0.400 0.576

DRB1\*04:05 -0.0260 0.218 -0.119 0.905 -0.454 0.402

A\*25:01 0.2324 0.190 1.225 0.220 -0.139 0.604

C\*03:03 0.1485 0.230 0.647 0.518 -0.302 0.599

DRB1\*01:01 -0.0712 0.276 -0.258 0.796 -0.611 0.469

DQB1\*03:03 0.2109 0.222 0.952 0.341 -0.223 0.645

B\*35:03 0.1139 0.218 0.522 0.602 -0.314 0.542

A\*66:01 0.4620 0.190 2.429 0.015 0.089 0.835

DQB1\*03:05 -0.1839 0.245 -0.750 0.453 -0.665 0.297

A\*69:01 0.2159 0.208 1.038 0.299 -0.192 0.624

B\*40:01 0.1105 0.323 0.342 0.732 -0.523 0.744

C\*16:01 0.0900 0.221 0.407 0.684 -0.344 0.524

C\*16:02 0.2502 0.297 0.841 0.400 -0.333 0.833

A\*31:01 0.1577 0.211 0.749 0.454 -0.255 0.571

A\*29:02 0.2282 0.207 1.101 0.271 -0.178 0.635

C\*14:02 -0.0980 0.285 -0.343 0.731 -0.657 0.461

B\*15:01 0.1365 0.247 0.552 0.581 -0.348 0.621

B\*51:08 -0.5377 0.360 -1.494 0.135 -1.243 0.168

C\*03:02 0.0938 0.286 0.328 0.743 -0.466 0.654

B\*27:02 0.6035 0.273 2.207 0.027 0.068 1.139

A\*24:03 0.0606 0.235 0.258 0.796 -0.400 0.521

DRB1\*04:01 -0.2535 0.272 -0.932 0.351 -0.787 0.280

C\*07:04 -0.3429 0.307 -1.116 0.264 -0.945 0.259

B\*37:01 0.1404 0.253 0.555 0.579 -0.355 0.636

DRB1\*08:01 -0.1217 0.382 -0.318 0.750 -0.871 0.628

A\*02:17 0.1493 0.252 0.591 0.554 -0.346 0.644

B\*15:03 -0.4120 0.350 -1.176 0.239 -1.098 0.274

A\*01:03 0.2548 0.276 0.924 0.355 -0.285 0.795

B\*27:05 0.4495 0.300 1.500 0.134 -0.138 1.037

B\*40:02 0.1210 0.317 0.382 0.703 -0.500 0.742

A\*33:03 0.3046 0.264 1.153 0.249 -0.213 0.822

A\*30:04 -0.0229 0.336 -0.068 0.946 -0.681 0.635

DRB1\*14:04 -0.3299 0.409 -0.807 0.420 -1.131 0.471

DRB1\*04:06 -0.1143 0.466 -0.245 0.806 -1.027 0.799

B\*39:01 0.1525 0.305 0.500 0.617 -0.446 0.751

DQB1\*03:04 0.5476 0.352 1.555 0.120 -0.143 1.238

DRB1\*08:04 -0.1460 0.365 -0.400 0.689 -0.862 0.570

A\*31:08 0.4354 0.267 1.632 0.103 -0.088 0.958

DRB1\*11:03 0.0844 0.321 0.262 0.793 -0.546 0.714

A\*24:07 -0.1609 0.373 -0.431 0.666 -0.892 0.570

DRB1\*09:01 -0.7541 0.463 -1.630 0.103 -1.661 0.153

B\*50:02 -0.3017 0.472 -0.639 0.522 -1.227 0.623

A\*24:17 -0.0614 0.406 -0.151 0.880 -0.857 0.734

B\*45:01 0.2071 0.334 0.620 0.535 -0.448 0.862

B\*56:01 -0.1688 0.426 -0.396 0.692 -1.003 0.666

C\*15:04 0.4220 0.324 1.301 0.193 -0.214 1.058

DRB1\*15:03 -1.0966 1.030 -1.064 0.287 -3.116 0.923

B\*44:05 0.0211 0.418 0.051 0.960 -0.798 0.840

B\*51:06 0.4981 0.355 1.404 0.160 -0.197 1.193

DRB1\*16:02 -0.7674 0.584 -1.314 0.189 -1.912 0.377

DRB1\*01:03 -0.5575 0.473 -1.180 0.238 -1.484 0.369

C\*04:07 -0.3062 0.528 -0.580 0.562 -1.342 0.729

A\*24:04 -0.5580 0.590 -0.945 0.344 -1.715 0.599

B\*73:01 -0.3525 0.561 -0.628 0.530 -1.452 0.747

DRB1\*04:08 -0.5011 0.492 -1.019 0.308 -1.465 0.463

B\*39:06 -0.6987 0.627 -1.115 0.265 -1.927 0.530

B\*27:07 -0.2958 0.500 -0.591 0.555 -1.277 0.685

B\*48:01 -0.3946 1.081 -0.365 0.715 -2.514 1.725

B\*40:06 -0.0034 0.469 -0.007 0.994 -0.923 0.916

B\*57:03 -1.0091 0.732 -1.378 0.168 -2.444 0.426

C\*14:03 0.1995 0.396 0.504 0.614 -0.576 0.975

B\*14:01 -0.8831 0.825 -1.071 0.284 -2.499 0.733

C\*08:03 -0.0221 1.227 -0.018 0.986 -2.428 2.384

B\*57:02 -18.6345 7609.879 -0.002 0.998 -1.49e+04 1.49e+04

C\*18:01 0.5622 1.027 0.547 0.584 -1.452 2.576

DRB1\*04:07 0.0929 0.432 0.215 0.830 -0.753 0.939

DRB1\*12:02 -0.1361 0.573 -0.238 0.812 -1.258 0.986

B\*47:01 0.1780 0.482 0.369 0.712 -0.767 1.123

A\*02:06 0.6273 0.569 1.102 0.270 -0.488 1.743

DRB1\*08:03 -1.0070 0.726 -1.387 0.165 -2.430 0.416

B\*51:07 0.8587 0.450 1.906 0.057 -0.024 1.742

A\*74:01 0.1922 0.555 0.346 0.729 -0.896 1.280

DRB1\*11:02 -0.7316 0.725 -1.009 0.313 -2.153 0.689

A\*34:02 -0.9044 1.043 -0.867 0.386 -2.948 1.139

C\*08:01 0.8360 0.649 1.289 0.198 -0.436 2.108

C\*02:10 0.9951 0.462 2.156 0.031 0.090 1.900

DRB1\*14:06 -0.9758 1.047 -0.932 0.351 -3.027 1.076

B\*42:01 0.6158 0.579 1.063 0.288 -0.519 1.751

B\*13:01 -0.0232 0.923 -0.025 0.980 -1.832 1.785

DQB1\*04:01 -0.6682 1.022 -0.654 0.513 -2.671 1.335

B\*15:16 0.0842 0.676 0.125 0.901 -1.241 1.409

B\*15:10 0.8345 0.567 1.473 0.141 -0.276 1.945

B\*39:10 -22.8210 6.45e+04 -0.000 1.000 -1.26e+05 1.26e+05

A\*02:03 0.0269 0.813 0.033 0.974 -1.566 1.620

A\*80:01 0.2051 0.726 0.283 0.778 -1.218 1.628

C\*04:03 0.7762 0.922 0.841 0.400 -1.032 2.584

B\*37:02 0.4016 0.747 0.537 0.591 -1.063 1.866

B\*15:18 0.8705 0.665 1.309 0.191 -0.433 2.174

B\*38:02 0.5857 0.833 0.703 0.482 -1.047 2.218

B\*15:24 -0.8125 1.039 -0.782 0.434 -2.849 1.224

B\*27:12 -11.6695 316.788 -0.037 0.971 -632.563 609.224

A\*74:03 1.3517 0.743 1.820 0.069 -0.104 2.807

DRB1\*08:02 0.5120 0.663 0.773 0.440 -0.787 1.811

B\*15:29 0.0503 1.066 0.047 0.962 -2.039 2.140

B\*48:04 -161.1495 7.1e+34 -2.27e-33 1.000 -1.39e+35 1.39e+35

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