

Appendices

A. ASR Prediction Assessment

In this section, qualitative assessment of ASR predictions are shown, when test set is sampled from the opposite gender, and when MD-CycleGAN model is used to adapt the test set distribution to the train set. Tables [7, 8] show the selected ASR predictions when adapting female→male, whereas Tables [9, 10] show adaptation for male→female. Note that MD-CycleGAN is trained on TIMIT, and used for adaptation on WSJ dataset.

Table 7: ASR prediction mismatch when train on male and evaluated on female (WSJ dataset).

Train on Male		
Test on Female	True	ASSOCIATED INNS KNOWN AS AIRCOA IS THE GENERAL PARTNER OF AIRCOA HOTEL PARTNERS AND HAS A ... PARTNERSHIP
	Female	AFFECTED ENDS NONE IS AIR COLA IS THE GENERAL PARTNER OF ALOHA TELL PRINTERS AND HAS A ... PARTNERSHIP
	Female→Male	ASSOCIATED INNS NONE HAS AIRCOA IS THE GENERAL PARTNER OF THE ARCO HOTEL PARTNERS AND AS A PARTNERSHIP
	True	ALTHOUGH THOSE GAINS ERODED DURING ...UNTIL THE LAST HALF HOUR OF TRADING
	Female	ALL THE THIS GAINS A ROLE DURING ...UNTIL THE LAST THATCHER OF TRADING
	Female→Male	ALTHOUGH THOSE GAINS A ROLE DURING ...UNTIL THE LAST TOUGH HOUR OF TRADING
	True	LA GUARDIA HAS ONLY FIFTY SEVEN GATES BUT AT PEAK HOURS DOZENS OF MORE PLANES MAY BE ON THE GROUND
	Female	THE GUIDE A HAS ONLY FIFTY SEVEN GATES THAT AT PEAK HOURS DOZENS OF MORE PLANES NAVY ON A GROUND
	Female→Male	THE GUARD A HAS ONLY FIFTY SEVEN GATES BUT AT PEAK HOURS DOZENS OF MORE PLANES MAY BE ON A GROUND
	True	HE SAID THE SALES HAD HAD A MAJOR PSYCHOLOGICAL IMPACT ON IRAN AND A NEGATIVE MILITARY IMPACT ON IRAQ
	Female	HE FED THE FAILS AND HAD A MAJOR PSYCHOLOGICAL INTACT ON IRAN AND A NEGATIVE MILITARY INTACT UNDER
	Female→Male	HE SAID THE SALES HAD HAD A MAJOR PSYCHOLOGICAL IMPACT ON IRAN AND A NEGATIVE MILITARY IMPACT ON IRAQ
	True	HE SAYS IT CAN GET CORNY TO SAY THAT MUSIC IS A UNIVERSAL LANGUAGE BUT IT REALLY IS
	Female	HE SAYS IT CAN GET CORN TO SANTA MUSIC IS A UNIVERSAL LANGUAGE THAT IT REALLY IS
	Female→Male	HE SAYS IT CAN GET CORNER TO SAY THE MUSIC IS A UNIVERSAL LANGUAGE BUT A REALLY IS
	True	GLASNOST ... BEEN GOOD TO LAWRENCE LEIGHTON SMITH
	Female	FLAT NEST ... BEING GOOD TO LAWRENCE LADEN SMITH
	Female→Male	GLASNOST ... BIG GOOD TO LAWRENCE LADEN SMITH
	True	BIDS TOTALING SIX HUNDRED FIFTY ... DOLLARS ... SUBMITTED
	Female	BIDS TUMBLING SIX HUNDRED FIFTY ... DOLLARS ... SUBMITTED
	Female→Male	BIDS TOTALING SIX HUNDRED FIFTY ... DOLLARS ... SUBMITTED
	True	NO FIRM PLAN HAS BEEN DEvised BUT IT IS UNDER ... HE SAID
	Female	NOW FIRM PLAN HAS BEEN DEVICES THAT IT IS UNDER ... HE SAID
	Female→Male	NO FIRM PLAN HAS BEEN DEvised BUT IT IS UNDER ... HE SAID
	True	ALTHOUGH SUCH EFFORTS TRIGGERED A RASH ...
	Female	ALL THIS SUCH EFFORTS TRIGGERED A RASH ...
	Female→Male	ALTHOUGH SUCH EFFORTS TRIGGERED A RASH ...
	True	N A S A SCHEDULED THE LAUNCH OF THE SPACE SHUTTLE DISCOVERY FOR SEPTEMBER TWENTY NINTH
	Female	AN A F A SCHEDULED THE LINE ON THE STATE SHUTTLE DISCOVERY PRESSER TWENTY NINTH
	Female→Male	AN A F A SCHEDULED THE LAUNCH OF THE SPACE SHUTTLE DISCOVERY PERSPECTIVE TWENTY NINTH
	True	IT MAY BE THAT OUR STRUCTURE AND ... FOR THE FUTURE
	Female	IT MAY BE THE ARISTECH SURE AND ... FOR THE FUTURE
	Female→Male	IT MAY BE THAT OUR STRUCTURE AND ... FOR THE FUTURE

Table 8: ASR prediction mismatch when train on male and evaluated on female (WSJ dataset).

Train on Male		
Test on Female	True	A LITTLE GOOD NEWS COULD SOFTEN THE MARKET'S RESISTANCE
	Female	A LITTLE GOOD NEWS COULD SOUTH IN THE MARKETS RESISTANCE
	Female→Male	A LITTLE GOOD NEWS COULD SOFTEN THE MARKET'S RESISTANCE
	True	MUSICIANS ARE MUSICIANS
	Female	DESIGNS ARE MUSICIANS
	Female→Male	MUSICIANS OR MUSICIANS
	True	EARLY LAST WEEK MR CHUN DID OFFER CONCESSIONS
	Female	EARLY LAST WEEK MR THAN DID OFFER CONCESSIONS
	Female→Male	EARLY LAST WEEK MR CHUN THE OFFER CONCESSIONS
	True	WE FELT THIS WAS AN ACT OF AGGRESSION HE SAID WITHOUT ANY MORAL OR POLITICAL JUSTIFICATION
	Female	WE THOUGHT THIS LIES AN ACTIVE AGGRESSION HE SAID WITH THAT ANY MORAL OR POLITICAL DESTINATION
	Female→Male	WE FELT THIS WAS AN ACTIVE AGGRESSION HE SAID WITHOUT ANY MORE ALL OUR POLITICAL JUSTIFICATION
	True	THE REMAINING NINETY NINE PERCENT INTEREST IN THE PARTNERSHIP CURRENTLY IS HELD BY AFFILIATES OF AIRCOA
	Female	THEY REMAIN IN NINETY NINE PERCENT INTEREST IN THE PARTNERSHIP CURRENTLY IS HELD BY AFFILIATE TO THEIR COLA
	Female→Male	THE REMAINING NINETY NINE PERCENT INTEREST IN THE PARTNERSHIP CURRENTLY IS HELD BY AFFILIATES OF THE AIRCOA
	True	BUT EVEN THIS SILVER HAired CIGAR SMOKING DIPLOMAT USED TOUGH WORDS TO DESCRIBE AMERICA'S ARMS SALES TO IRAN
	Female	BUT EVEN THE SILVER HAD A GRASPING DIPLOMAT EAST TOUGH WORDS TO DESCRIBE AMERICA'S ARMS SALES TAIWAN
	Female→Male	BUT EVEN THIS SILVER HAired SUGAR SMOKING DIPLOMAT USE TOUGH WORTH TO DESCRIBE AMERICA'S ARMS SALES TO IRAN
	True	GEORGE E R KINNEAR THE SECOND WAS NAMED TO THE NEW POST OF SENIOR VICE PRESIDENT IN CHARGE OF LONG RANGE PLANNING AND RELATED GOVERNMENT RELATIONS
	Female	JORGE E KINNEAR THE SECOND WAS NAMED DID THE NEW POST OF SENIOR VICE PRESIDENT IN CHARGE OF LONG RANGE PLANNING IN RELATED GOVERNMENT RELATIONS
	Female→Male	GEORGE E I KINNEAR THE SECOND WAS NAMED TO THE NEW POST OF SENIOR VICE PRESIDENT IN CHARGE OF LONG RANGE PLANNING IN RELATED GOVERNMENT RELATIONS
	True	HE ARGUES THAT FRIDAY'S UNEMPLOYMENT FIGURES UNDERMINED THE THESIS OF A SHARPLY SLOWING ECONOMY
	Female	HE ARGUES THAT FRIDAY'S AND EMPLOYMENT FIGURES UNDERMINED THAT THESE SAYS THEM A SHARPLY SLOWING ECONOMY
	Female→Male	HE ARGUES THAT FRIDAY'S UNEMPLOYMENT FIGURES UNDERMINED THE THESIS OF A SHARPLY SLOWING ECONOMY
	True	THERE ARE SOME GUYS HERE THAT ARE SAYING THIS IS THE FINAL JUMP BEFORE THE CRASH
	Female	THERE ARE SOME DIES YEAR THAT ARE SAYING THIS IS THE FINAL JUMP BEFORE THE CRASH
	Female→Male	THERE ARE SOME GUYS YEAR THAT ARE SEEING THIS IS THE FINAL JUMP BEFORE THE CRASH
	True	ONLY A FEW STATES REQUIRE UNEMPLOYMENT COMPENSATION FOR LOCKED OUT WORKERS
	Female	ONLY IF HE'S STATES REQUIRE UNEMPLOYMENT COMPENSATION FOR LOCKED OUT WORKERS
	Female→Male	ONLY A FEW STATES REQUIRE UNEMPLOYMENT COMPENSATION FOR LOCKED OUT WORKERS
	True	HE ALSO SAYS THE AUTHORITIES MEAN WHAT THEY SAY THAT THEY WILL NOT STAND ASIDE AND LET CURRENCIES REACH NEW LOWS POST ELECTION
	Female	HE ALSO SAYS THE AUTHORITIES MEAN WHAT THEY SAY THAT THEY WILL NOT STAND ASIDE AND LIGHT FRANCE'S REACHED NEW LOWS POST ELECTION
	Female→Male	HE ALSO SAYS THE AUTHORITIES MEAN WHAT THEY SAY THAT THEY WILL NOT STAND ASIDE AND LET CURRENCIES REACH NEW LOWS POST ELECTION
	True	BUT LOOK A LITTLE FURTHER THERE ARE WAYS AROUND HIRING FREEZES
	Female	BUT LOOK A LITTLE FURTHER THERE ARE WAYS AROUND HIRING PRICES
	Female→Male	BUT LOOK A LITTLE FURTHER THERE ARE WAYS AROUND HIRING FREEZES
	True	MR HOLMES A COURT SAID HE PLANS TO REVIEW THE STRUCTURE OF BELL GROUP
	Female	MR HOLMES ACQUIRED SAID HE PLANS TO REVIEW THE STRUCTURE OF BALLET
	Female→Male	MR HOLMES A COURT SAID HE PLANS TO REVIEW THE STRUCTURE OF BELL GROUP

Table 9: ASR prediction mismatch when train on female and evaluated on male (WSJ dataset).

Train on Female		
Test on Male	True	STRONGER PALM OIL PRICES HELPED OIL PRICES FIRM ANALYSTS SAID
	Male	STRONGER PALM ON PRICES HELPED OIL PRICE FROM ANALYSTS SO
	Male→Female	STRONGER PALM OIL PRICES HELPED OIL PRICES FIRM ANALYSTS SAID
	True	CONTACTS STILL INSIDE OWENS CORNING HELP TOO
	Male	CONTACTS STILL INSIDE OWENS CORN AND HELP TO
	Male→Female	CONTACTS STILL INSIDE OWENS CORNING HELP TO
	True	THE WARMING TREND MAY HAVE MELTED THE SNOW COVER ON SOME CROPS
	Male	THE WOMAN TREND MAYOR MELTED THE SNOW COVER ON SOME CROPS
	Male→Female	THE WARMING TREND MAY HAD MELTED TO SNOW COVER ON SOME CROPS
	True	HE MADE A SALES CALL HE SAYS
	Male	HE MADE A SALES CALL HE SERVES
	Male→Female	HE MADE A SALES CALL HE SAYS
	True	IT WASN'T A GIVEAWAY
	Male	IT WASN'T TO GIVE MORE
	Male→Female	IT WASN'T THAT GIVE AWAY
	True	VICE PRESIDENT BUSH MUST BE ESPECIALLY GRATEFUL FOR THE CHANGE OF SUBJECT ANYTHING WAS BETTER THAN THE DRUM-BEAT ABOUT PANAMA AND GENERAL NORIEGA
	Male	VICE PRESIDENT BUSH MUST BE ESPECIALLY GREAT FULL FOR THE CHANGE OF SUBJECT ANYTHING WAS BETTER THAN A DRUM-BEAT ABOUT PANAMA AND TRUMAN MILEAGE
	Male→Female	VICE PRESIDENT BUSH MUST BE ESPECIALLY GREAT FULL FOR THE CHANGE OF SUBJECT ANYTHING WAS BETTER THAN THE DRUM BEAT ABOUT PANAMA AND GENERAL NORIEGA
	True	IN NINETEEN EIGHTY FIVE PENNZOIL WON NEARLY ELEVEN BILLION DOLLARS IN DAMAGES AT TRIAL THE BIGGEST JUDGMENT EVER AWARDED A PLAINTIFF
	Male	IN NINETEEN EIGHTY FIVE PENNZOIL ONE NEARLY ELEVEN BILLION DOLLARS IN DAMAGES ARE THE BIGGEST GEORGE MEN EVEN ORDERED A PLAINTIFF
	Male→Female	IN NINETEEN EIGHTY FIVE PENNZOIL ONE NEARLY ELEVEN BILLION DOLLARS IN DAMAGES AT TRY THE BIGGEST JUDGMENT EVER AWARDED A PLAINTIFF
	True	BUT IT'S DIFFICULT TO SEE WHERE THE COMPANY GOES FROM HERE
	Male	BUT IT'S DIFFICULT TO SEE WHERE THE COMPANY GOT YEAR
	Male→Female	BUT IT'S DIFFICULT TO SEE WHERE THE COMPANY GOES FROM HERE
	True	THEY EXPECT COMPANIES TO GROW OR DISAPPEAR
	Male	THE DEBUT COMPANIES TO GO ON DISAPPEAR
	Male→Female	THEY EXPECT COMPANIES TO GROW OR DISAPPEAR
	True	ALSO MENTIONED WAS A CONTROVERSIAL PROPOSAL TO DENY THE DEDUCTION FOR TWENTY PERCENT OF CORPORATE ADVERTISING COSTS AND TO REQUIRE INSTEAD THAT THEY BE AMORTIZED OVER TWO YEARS
	Male	ALSO NOTION WERE RETREAT PROPOSAL TO DENY THE DEDUCTION FOR TWENTY PERCENT OF CORPORATE ADVERTISING COSTS AND REQUIRING STOP BUT THE BE AMORTIZED OVER TOURS
	Male→Female	ALSO MENTIONED WAS A CONTROVERSIAL PROPOSAL TO DENY THE DEDUCTION FOR A TWENTY PERCENT OF CORPORATE ADVERTISING COSTS AND TO REQUIRE INSTEAD THAT THEY BE AMORTIZED OVER TO YEARS
	True	ALTHOUGH JAPAN'S POLICIES WON'T CHANGE RADICALLY UNDER TAKESHITA SIXTY THREE HIS LACK OF FOREIGN POLICY EXPERIENCE COULD WORSEN JAPAN'S INTERNATIONAL RELATIONS
	Male	ALTHOUGH JAPAN'S POLICIES WON'T CHANGE RADICALLY ON THE TAKESHITA SIXTY FOR HIS LACK OF FOREIGN POLICY EXPERIENCE COULD WORSEN REPAIRS INTERNATIONAL RELATIONS
	Male→Female	ALTHOUGH JAPAN'S POLICIES WON'T CHANGE RADICALLY UNDER TAKESHITA SIXTY THREE HAS LACK OF FOREIGN POLICY EXPERIENCE COULD WORSE IN JAPAN'S INTERNATIONAL RELATIONS
	True	HOWEVER INCREASING THE COST OF RESEARCH ANIMALS SHOULD MOTIVATE RESEARCHERS NOT TO WASTE THEM ON MERELY CURIOUS OR REPETITIVE STUDIES
	Male	HOWEVER INCREASING THE COST OF RESEARCH ANIMALS SHOULD MOTIVE AT RESEARCHERS NOT TO WASTE THEM ON NEARLY CURIOUS OR REPEATED STUDIES
	Male→Female	HOWEVER INCREASING THE COST OF RESEARCH ANIMALS SHOULD MOTIVATE RESEARCHERS NOT TO WASTE THEM ON MERELY CURIOUS OR REPEATED OF STUDIES

Table 10: ASR prediction mismatch when train on female and evaluated on male (WSJ dataset).

Train on Female		
Test on Male	True	AND SOME CHAINS SUCH AS HOLIDAY CORPORATION SHERATON CORPORATION AND HYATT HOTELS CORPORATION INSIST THEY WILL MAKE PLENTY OF ROOMS AVAILABLE AT BARGAIN RATES
	Male	IN SOME CHAINS SUCH AS HOLIDAY CORPORATION SHARES CORPORATION TERMINATE LES CORPORATION INSIST THEY WILL MAKE PLAIN OF ROOMS AVAILABLE OR BARGAIN ROUTES
	Male→Female	AND SOME CHAINS SUCH AS HOLIDAY CORPORATION SHARES IN CORPORATION AND HIGH AT HOTELS CORPORATION INSIST THEY WILL MAKE PLENTY OF ROOMS AVAILABLE AT BARGAIN RATES
	True	THE NASDAQ COMPOSITE INDEX OF FOUR THOUSAND SIX HUNDRED THIRTY EIGHT STOCKS CLOSED AT THREE HUNDRED SEVENTY FOUR POINT SIX FIVE DOWN ZERO POINT ONE SIX
	Male	THE NASDAQ COMPOSITE IN BARS AND FOUR THOUSAND SIX HUNDRED THIRTY EIGHT STOCKS CLOSED AT THREE HUNDRED SEVENTY FOUR POINT SIX FIVE DOWN ZERO POINT ONE SOUTH
	Male→Female	THE NASDAQ COMPOSITE INDEX OF FOUR THOUSAND SIX HUNDRED THIRTY EIGHT STOCKS CLOSED AT THREE HUNDRED SEVENTY FOUR POINT SIX FIVE DOWN ZERO POINT ONE SIX
	True	ALTHOUGH MOST OF THOSE HAVE BEEN WEAK PERFORMERS THIS YEAR THAT HASN'T STOPPED OTHERS FROM TRYING TO CASH IN ON THE TERM'S NEW CACHET
	Male	ALTHOUGH MOST OF LOANS HAVE BEEN WEAK PERFORMERS LOSER THAT HASN'T STOPPED OTHERS FROM TRYING TO CASH ON THE TERMS ON CASH
	Male→Female	ALTHOUGH MOST OF THOSE HAVE BEEN WEAK PERFORMERS THIS YEAR THAT HASN'T STOPPED OTHERS FROM TRYING TO CASH IN ON THE TERM'S NEW CASH
	True	MARKET ACTION WAS ESSENTIALLY DIGESTING WEDNESDAY'S RALLY
	Male	MARKET ACTION WAS ESSENTIALLY BY JUST IN ONE DAY'S RODE
	Male→Female	MARKET IN ACTION WAS ESSENTIALLY IN DIGESTING WEDNESDAY'S RALLY
	True	NUCLEAR WEAPONS FREE ZONES ARE ATTRACTING INCREASING AND MISGUIDED PUBLIC AND PARLIAMENTARY ATTENTION IN THE POST I N F WESTERN WORLD
	Male	NUCLEAR WEAPONS FREEDOMS ARE ATTRACTING INCREASING UNDERScoreD PUBLIC IN PARLIAMENT ARE ATTENTION IN THE POST I M F WESTERN WORLD
	Male→Female	NUCLEAR WEAPONS FREEZES ARE ATTRACTING INCREASING AT MISGUIDED PUBLIC AND PARLIAMENTARY ATTENTION IN THE POST I N F WESTERN WORLD
	True	THE RECALL EXPANDS ON A WITHDRAWAL OF OTHER MODELS BEGUN EARLIER THIS WEEK
	Male	THE RECALL EXPANDS ON A WERE WELL OFF OVER MODELS BOONE ROLE OF IS QUICK
	Male→Female	THE RECALL EXPANDS ON A WAS DRAW ALL OF OTHER MODELS BEGAN EARLIER THIS WEEK
	True	THRIFT NET WORTH
	Male	THRIFT NATWEST
	Male→Female	THRIFT NET WORSE
	True	MR POLO ALSO OWNS THE FASHION COMPANY
	Male	MR PAYING ALSO LONG THE FASHION COMPANY
	Male→Female	MR POLO ALSO OWNS THE FASHION COMPANY
	True	THE FATE OF THE UNIVERSE IS STILL A MYSTERY
	Male	THE FATE OF VIRUS IS STILL A MYSTERY
	Male→Female	THE FATE OF THE UNIVERSE IS STILL A MYSTERY
	True	ASTRONOMERS SAY THAT THE EARTH'S FATE IS SEALED
	Male	TRADERS SAY OF THE FAT IS SOLD
	Male→Female	ASTRONOMERS SAY THAT THE EARTH'S FATE IS SHIELD
	True	FIVE BILLION YEARS FROM NOW THE SUN WILL SLOWLY SWALLOW THE EARTH IN A HUGE FIREBALL
	Male	FAR BILLION YEARS SHUNNED THE SHOUTING SLOWER SWELL LEON SOARED A HUGE PARABLE
	Male→Female	FIVE BILLION YEARS SHADOW THE SUN WILL SLOW ACTUALLY EARNS ON A HUGE FIREBALL
	True	DRAVO LAST MONTH AGREED IN PRINCIPLE TO SELL ITS INLAND WATER TRANSPORTATION STEVEDORING AND PIPE FABRICATION BUSINESSES FOR AN UNDISCLOSED SUM
	Male	TRAVEL LAST MONTH FOR GREED IN PRINCIPLE TO SELL ITS IMPLIED WATER TRANSPORTATION STARRING AND PIPE FABRICATION BUSINESSES FOR AN UNDISCLOSED SUM
	Male→Female	TRAVEL LAST MONTH AGREED IN PRINCIPLE TO SELL ITS INLAND WATER TRANSPORTATION STEVEDORING AND PIPE FABRICATION BUSINESSES FOR AN UNDISCLOSED SUM
	True	UNFORTUNATELY WE'VE SEEN NOTHING BUT STUNTS
	Male	ON FORTUNE ALL WE'RE SEEING NOTHING BUT STOCKS
	Male→Female	AND FORTUNATELY WE'VE SEEN NOTHING BUT STUNTS