SPEECH: WINDOW TO THE MIND

EACH OF US HERE TONIGHT HAS AN ALL-TOO-VIVID RECALL OF THE RECENT MASSACRE IN TUCSON, ARIZONA, IN WHICH JARED LOUGHNER MURDERED - IN COLD BLOOD - SIX PEOPLE, INCLUDING A NINE-YEAR-OLD GIRL, AND WOUNDED THIRTEEN OTHERS, INCLUDING CONGRESSWOMAN GABRIELLE GIFFORDS. THIS FRONT COVER OF TIME POSES A QUESTION THAT WE HAVE BEEN FORCED TO CONFRONT ON PREVIOUS OCCASIONS. WHAT IS THE PLACE OF SPEECH IN DETERMINING "MADNESS," IN SEDUCING US TO ENGAGE IN A LOVE AFFAIR WITH GUNS, IN RESTORING SPEECH IN A CONGRESSWOMAN SHOT THROUGH THE HEAD, AND IN CONSOLING A NATION OVERCOME WITH GRIEF - AND HUMILIATION - THAT SUCH A TRAGEDY COULD HAPPEN - AGAIN - IN A NATION THAT PRIDES ITSELF - WITH SOME HUBRIS - AS BEING ON THE CUTTING EDGE OF CIVILIZATION?

WHO ARE WE, WE WHO CALL OURSELVES AMERICANS? WHO WE THINK WE ARE HAS EVERYTHING TO DO WITH HOW WE BEHAVE IN OUR WORLD. SOME HAVE CONTENDED THAT WE ARE THE CHILDREN OF OUR PARENTS AND LITTLE MORE, IN A SOCIETY AS STRATIFIED AS IN VICTORIAN ENGLAND OR IN THE CASTE

SYSTEM OF ITS COLONY AT THE TIME, INDIA. OTHERS MAINTAIN THAT SINCE WE ARE "CREATED EQUAL," WE HAVE UNLIMITED POTENTIAL TO BECOME WHOMEVER WE WISH, OUR ONLY LIMITATIONS BEING A LACK OF IMAGINATION OR WILL POWER. IT IS THIS LATTER VIEW THAT HAS BEEN THE DRIVING POWER BEHIND THIS YOUNG NATION SINCE ITS INCEPTION JUST OVER TWO HUNDRED YEARS AGO. SOME, LIKE VICTOR LINDLAHR, INSIST THAT WE ARE WHAT WE EAT, WHILE OTHERS, LIKE STEVEN PINKER, SUGGEST THAT WE ARE WHAT WE THINK. FURTHERMORE, WHAT WE THINK IS COUCHED IN LANGUAGE, WHAT PINKER CALLS THE "STUFF OF THOUGHT." WHETHER THE ORDINARY LANGUAGE WE ARE USING THIS EVENING. DISCURSIVE AND LINEAR, FOLLOWING A SET SEQUENCE, OR NONDISCURSIVE, SUCH AS THIS PICTURE ON TIME'S COVER, WITH NO SET SEQUENCE TO FOLLOW TO UNDERSTAND IT, THEY COMPRISE THE MOST IMPORTANT SPECIES-SPECIFIC TRAIT OF THE MORE THAN THREE HUNDRED THAT HAVE BEEN ASSOCIATED WITH HOMO SAPIENS BY ANTHROPOLOGISTS, TRAITS SUCH AS BIPEDALISM OR OPPOSABLE THUMBS. THAT SUPREME TRAIT, SYMBOLIZATION, IS WHAT SUZANNE LANGER, STUDENT OF ALFRED NORTH WHITEHEAD, CONTENDS IS WHAT MAKES US HUMAN. FOR OTHER PRIMATES CAN SIGNALIZE. POINTING TO A REFERENT WITH A SOUND OR A MOVEMENT IN SUCH A MANNER THAT THE SIGNAL IS INSEPARABLE FROM THE REFERENT. IT IS ONLY HOMO SAPIENS THAT CAN SYMBOLIZE, THAT IS, CAN SUBSTITUTE A SOUND, MOTION, OR PICTURE FOR

A REFERENT. IT IS THAT SUBSTITUTION THAT SEVERS THE

PSYCHOLOGICAL UMBILICAL CORD THAT TIES OTHER ANIMALS

TO THEIR REFERENTS. ONCE SEVERED, THE SYMBOLS CAN

THEN BE SO ARRANGED AS TO ENABLE US TO SOLVE OUR

PROBLEMS WITHOUT THE PRESENCE OF THOSE REFERENTS.

IF INDEED LANGUAGE, AND PARTICULARLY SPOKEN

LANGUAGE, IS SO CENTRAL TO OUR THINKING, IT MUST HAVE

EXERTED A PROFOUND EFFECT OVER THE YEARS IT HAS BEEN

DEVELOPING PERHAPS IT WILL HELP DRAMATIZE THE

IMPORTANCE OF THE SPOKEN WORD IF WE CAN VISUALIZE THE

GLACIER-LIKE PACE OF EVOLUTION SINCE THE DAWN OF THE

UNIVERSE. IMAGINE, IF YOU WILL, THE AGE OF THE UNIVERSE

CONDENSED INTO A SINGLE TWENTY-FOUR HOUR DAY.

STARTING WITH THE SO-CALLED "BIG BANG," 13.7 BILLION
YEARS AGO AT TWELVE O'CLOCK MIDNIGHT, WE FIND THAT
OUR HOME GALAXY, THE "MILKY WAY," MADE ITS APPEARANCE
ABOUT 12.5 BILLION YEARS AGO, AT ABOUT 2 AM. IT WAS NOT,
HOWEVER, UNTIL ANOTHER 8 BILLION YEARS PASSED THAT
OUR SOLAR SYSTEM APPEARED, ABOUT 4.5 BILLION YEARS
AGO, OR ABOUT 3 PM. ANOTHER 800 MILLION YEARS WAS TO
PASS, HOWEVER, BEFORE THERE WAS ANY SIGN OF LIVING
SYSTEMS, MICROBIAL SYSTEMS, ON EARTH. THEN, BETWEEN 3.5
BILLION YEARS AGO AND 65 MILLION YEARS AGO, THERE
OCCURRED AT LEAST EIGHT MASS EXTINCTIONS, THE MOST

DESTRUCTIVE OF WHICH OCCURRED ABOUT 252 MILLION
YEARS AGO. HOMINID LIFE BEGAN ABOUT 5 MILLION YEARS
AGO, IN NORTHEAST AFRICA, OR ABOUT 11:15 PM. BUT HOMO
SAPIENS DID NOT APPEAR UNTIL ABOUT 250 THOUSAND YEARS
AGO, OR ABOUT 11:55 PM. THE FIRST SIGNS OF SYMBOLIZATION
DID NOT OCCUR UNTIL ABOUT 125 THOUSAND YEARS AGO, OR
ABOUT 2.5 MINUTES BFORE MIDNIGHT. IN THAT EVER-SO-BRIEF
2.5 MINUTES UNTIL THIS 21ST CENTURY, THE LAST ICE AGE HAS
BEGUN AND ENDED, AFTER WHICH CATTLE AND GRAINS WERE
DOMESTICATED AND CITIES ESTABLISHED - ALONG WITH
CIVILIZATION. CENTRAL TO THAT CIVILIZATION WERE THE
DEVELOPMENT OF THE ALPHABET AND WRITING, THE
DEMYTHOLOGIZING OF ANCIENT MYTHS AND THEIR
REPLACEMENT WITH SCIENCE AND LOGIC BY THE ANCIENT
GREEKS.

ON THE DOWNSIDE, SINCE THE END OF THE LAST ICE AGE, IN OUR EFFORT TO CONTROL OUR ENVIRONMENT RATHER THAN BE CONTROLLED BY IT, WE HAVE INITIATED WHAT HAS BEEN INCREASINGLY DESIGNATED AS THE ANTHROPOGENIC EXTINCTION. SINCE WE HUMANS ARE LARGELY RESPONSIBLE FOR IT, IT BECOMES ALMOST IMPOSSIBLE FOR US TO MITIGATE IT BEFORE THE HUMAN RACE BECOMES EXTINCT. FOR IT HAS BECOME INCREASINGLY CLEAR THAT WE DO NOT BUDGE FROM WHAT HAS BECOME HABITUAL UNTIL WE REACH A CRISIS, BY THIS TIME THE THREAT HAS WORSENED, AND THE COST HAS

MULTIPLIED, IN BOTH LIVES AND RESOURCES.

IN THE LAST 2,000 YEARS, OR 30 SECONDS ON THIS EVOLUTIONARY CLOCK, WE HAVE WITNESSED THE DEVELOPMENT OF PRINTING AND OF LITERACY AS WELL AS THE DEVELOPMENT OF MODERN DEMOCRACY, MODERN SCIENCE, AND MODERN EDUCATION. AND IN THE VERY LAST 200 YEARS, OR 3 SECONDS ON OUR CLOCK, WE HAVE OBSERVED THE ACCUMULATION OF THE FIRST BILLION HUMANS ON EARTH, TO DOUBLE AND THEN TO TRIPLE TO ALMOST SEVEN BILLION TODAY. WE HAVE ALSO OBSERVED THE DEVELOPMENT OF INDUSTRIALIZATION, REPLACING THE OWNERS OF LAND WITH THE OWNERS OF CAPITAL AS THE POWER BROKERS OF SOCIETY, IN TURN TO BE REPLACED BY THE OWNERS OF THE INFORMATION MEDIA HIGHLIGHTING THE CENTRALITY OF SYMBOLIZATION, AND ESPECIALLY THE POWER OF THE SPOKEN WORD. WE CANNOT HELP BUT NOTE THE VIRTUALLY STATIC PROGRESSION OF LIVING SYSTEMS ON EARTH SINCE THE DAWN OF **HOMINIDS** 6 MILLION YEARS AGO. ONLY WITH THE DEVELOPMENT OF SPEECH, AND ITS ANATOMICAL GROWTH IN THE SPEECH CENTERS OF THE BRAIN, CAN WE UNDERSTAND THE AMAZING POWER OF SYMBOLIZATION TO TRANSFORM THE HUMAN RACE DURING THE PAST 5 MILLION YEARS OR 45 SECONDS ON THE EVOLUTIONARY CLOCK.

SOME OF YOU MAY RECALL THE RECENT ANNOUNCEMENT

THAT THE SECOND COMPLETE TRANSPLANTATION OF A LARYNX WAS ACCOMPLISHED, AFTER EIGHTEEN HOURS OF NON-STOP SURGERY, THE FIRST HAVING OCCURRED IN 1998. BUT 80 YEARS BEFORE THAT, IN 1918, MY FATHER EXPERIENCED THAT POWER AS A RADIO OPERATOR ON THE WESTERN FRONT IN FRANCE IN THE FIRST WORLD WAR. THERE, IN THE GANGRENE-INFESTED TRENCHES, HE WAS ENVELOPED IN A CLOUD OF MUSTARD GAS - PERHAPS THE MOST PAINFUL OF THE POISON GASES - AND, REMOVED TO A FIELD HOSPITAL, HE WAS UNABLE TO UTTER A WORD FOR 3.5 MONTHS. HIS FIANCEE AT THE TIME, MY MOTHER, ATTESTED TO THE FACT THAT WHEN HE RETURNED TO THE STATES, HE WAS A CHANGED MAN.

WE HAVE COME TO RECOGNIZE SYMBOLIZATION, AND PARTICULARLY SPEECH, AS THE SUPREME SPECIES-SPECIFIC TRAIT AMONG THE MORE THAN THREE HUNDRED SUCH TRAITS IDENTIFIED BY ANTHROPOLOGISTS. FOR IT NOT ONLY ENABLES US TO COMMUNICATE AS SOCIAL CREATURES, BUT - PRIOR TO THAT - SIMPLY TO ENGAGE IN HIGHER LEVEL THINKING. IT IS NOT TOO MUCH TO SAY THAT SPEECH IS NOT ONLY THE WINDOW TO THE MIND BUT IS THE KEY TO HIGHER BRAIN FUNCTION. THERE IS, PERHAPS, NO BETTER WAY TO ILLUSTRATE THIS THAN TO TRACE THE ETYMOLOGY OF THE WORD "SYMBOL." IT IS DERIVED FROM THE ANCIENT GREEK PRACTICE OF HOSPITALITY, IN WHICH THE HOST, ON THE DEPARTURE OF HIS GUEST, WOULD TAKE A RING OR COIN, AND CUT IT IN

HALF, GIVING ONE HALF TO HIS GUEST AND RETAINING THE OTHER HALF, PERHAPS PUTTING IT ON THE MANTLE ABOVE HIS FIREPLACE. THE GUEST, NOW ON HIS JOURNEY, MIGHT WELL BE FINGERING HIS HALF AS HE RECALLS THE SPLENDID HOSPITALITY OF HIS HOST. NOTE THAT THE FIRST HIGHER FUNCTION OF THE MIND IS MEMORY.

NOW NOTE THAT THE GUEST IS NOT ONLY THINKING ABOUT WHAT OCCURRED, BUT WHAT MIGHT HAVE OCCURRED HAD HE TAKEN THE TIME TO THANK THE WIFE OF HIS HOST PROPERLY. HE WAS BY THIS TIME NOT ONLY REMEMBERING, BUT IMAGINING WHAT MIGHT OR SHOULD HAVE OCCURRED. NOTE THAT IMAGINATION, THE <u>NEXT</u> HIGHER BRAIN FUNCTION, NOT ONLY GOES BEYOND MEMORY, BUT IS BASED UPON MEMORY. WELL, THE GUEST RESOLVES, THE NEXT TIME I'M ON THIS TREK, I SHALL MAKE A POINT TO STOP AND THANK THE WOMAN OF THE HOUSE PROPERLY. BUT BEFORE HE CAN SET THIS GOAL, HE MUST HAVE THE FREEDOM TO CHOOSE THAT GOAL. WHATEVER ELSE FREEDOM IMPLIES, IT IMPLIES FREEDOM OF CHOICE. THUS DO FREEDOM AND CHOICE PRECEDE GOAL SETTING, WHICH, TOGETHER, COMPLETE THREE FURTHER HIGHER BRAIN FUNCTIONS. NOTE, TOO, SEVERAL OTHER HIGHER BRAIN FUNCTIONS INVOLVED SO FAR. THE FIRST IS CONSCIENCE. THE GUEST HAS BEEN PROPERLY TAUGHT AND KNOWS BETTER THAN TO RUSH OFF WITHOUT PROPER EXPRESSION OF GRATITUDE TO HIS HOSTESS AS WELL AS HIS HOST. THE SECOND

IS <u>GUILT</u>. THE GUEST HAS <u>FAILED</u> IN HIS DUTY - THOUGH AN UNWRITTEN DUTY - TO OBEY THE CUSTOMS OF POLITE <u>SOCIETY</u>. THE THIRD IS <u>RESOLUTION</u>, IN THIS CASE RESOLUTION TO CHANGE HIS <u>BEHAVIOR</u>. YET TO ACTUALLY <u>CHANGE</u> THAT BEHAVIOR, THE GUEST MUST ENTERTAIN THE POSSIBILITY THAT HE MIGHT NOT BE ABLE TO <u>MAKE</u> THIS TREK AGAIN IN A REASONABLE TIME, OR PERHAPS <u>NEVER</u>. THERE'S A POSSIBILITY THAT HE - OR SHE - MAY INCUR AN <u>ACCIDENT</u> OR DISEASE, OR EVEN <u>DIE</u>. WILL SHE, OR THE HOST, SEE FIT TO <u>PARDON</u> HIM? THESE AND <u>OTHER</u> CONTINGENCIES HE MUST ADDRESS.

THUS DO WE SEE THAT SPEECH NOT ONLY PROVIDES A WINDOW TO THE MIND BUT ALSO MAKES POSSIBLE ITS OTHER HIGHER FUNCTIONS. PERHAPS WE CAN CONCLUDE THAT SPEECH IS THE MOST IMPORTANT FUNCTION OF THE PRIVATE PERSON, AND ITS COMMUNICATION IS THE MOST IMPORTANT FUNCTION OF THE PUBLIC PERSON. IN THIS COMPLEMENTARY FASHION DO WE SEE OURSELVES AND IDENTIFY JUST WHO WE THINK WE ARE.