

7 Uff! GUI bXYfg'XfUk g'UhtYbhjcb'hc'h.Y'ZU''b['V]fh' fUHY'UbX'VčbWVfbg'cj Yf'h.Y'Zyfh']hmcZa Uff]YX'
k ca Yb'UbX'U'XYW]bY']b'h.Y'g]hY'cZh.Y'ZUa]nfi'<Y'Uf[i YX'h.Uh gca Y'cf[Ub]gU]cbžk]h'h.Y'
k \c'Y'dcdi 'U]cb'g]h' U]cb'i bXYf'fYj]Yk 'UbX'XYg]fYg'hc'Včbghfi WU b a]g'dt

h.Y'Zcfa U]cb'cZU'bYk 'Vča a]h.Y''#ghUHYX'h.Uh'h.Y'h]hY'cZh.Y'Vča a]h.Y'g'
k cfX' dcdi 'U]cb ž'h.Y'9i [Yb]Vg'GcVYhmk ci 'X']b]U'mcZYf'v&) \$'hc'h.Y'Vča
bi a VYf'cZcf[Ub]gU]cbg'k ci 'X'VY']bj]h.Y'hc'bca]bUHY'fYdfYgYbU]h] Yg''

% '>I bY%' '*'

h.VY'ZfghZfX'Uba, Y'U]b]c'Zh'Uddc]i Y'h.Y']b]Y'g]c'Zhc'b'Včaaa]h.Y'U'U'V'Y'X'Y'5b'Y'U'G]f'
5'Yi UbXYf'7 Uff! GUI bXYfg']g'Y'VWYX'7 \U]fa Ub'cZh.Y'7 ca a]h.Y'Z'7 "D"'6'UW_Yf'h.Y'; YbYfU'
GYWYUf'nž'UbX'8Uj]X'; 'Ugg'h.Y'F YgYUfVX'GYWYUf'm'i'h.Y'h'fa g'cZfY'ZfYbW'cZh.Y'D'U'Uf'
YgUUV']g\YX'Ug'VY]b['hc']bj Ygh[UHY'h.Y'j Uf]ci g'WU' gYg'cZh.Y'XYW]bY'cZh.Y'V]fh' fUHYž

&'k \]M'

]bW' XYg'a YX]W'žgcVU'UbX'YVčbca]WZU'hc'fg''#]g'U'gc'XYWYX'h.Uh'h.Y'Vča a]h.Y'g'lc'i 'X'VY'
]bXYdYbXYbhZ'ca 'h.Y'9i [Yb]Vg'GcVYhmiUbX'h'cgY'cf[Ub]gU]cbg'k \c'\UX'Uddc]bYX'
fYdfYgYbU]h] Yg'hc']h'

% ' '*'

H\Y'Zfghdi V]W]h]cbg'cZh.Y'D'U'UddYUf']bW' X]b[. '8"J''; 'Ugg'UbX'7 "D"'6'UW_Yf'z' H\Y': i h' fY'cZ
Ci f'Dcdi 'U]cb'3f'Dcdi 'U]cb']bj Ygh[U]cb'7 ca a]h.Y'Z%' '*Lž'8"J''; 'Uggž' H\Y'G]h' [['Y'Zf'
Dcdi 'U]cb'žf'c']Z'fX.'7'UfYbXcb'DfYggž%' '*L'UbX'5"A "'7 Uff! GUI bXYfgž'K cfX'Dcdi 'U]cb.'DUgh'
; fck'h'UbX'DfYgYbU]h]fYbXgž'f'c']Z'fX.'7'UfYbXcb'DfYggž%' '*L'

¹ A.M. Carr-Saunders, 'Eugenics in the Light of Population Trends', *Eugenics Review*, Vol. 27, No. 1, Apr 1935 p18

ZJa]Yg" H\Y >c]bh7 ca a]HY'YghUV]g\YX'hc'Ybei]fY]bhc'gcVU'UbX'YVt'ba]WUgdYVg'cZW]X'
VYUf]b[]b'; fYUh6f]U]b" H\Y'gi VYVg'UfY' h\Y'W]XfYb'cZk ca Yb'k \c' [Uj Y'V]fX' Xi f]b['h\Y'
k YY_ 'YbX]b['- 'A UfW % (* "'A cbYmZcf'h\Y'bei]fmfYV]j YX'Zca 'h\Y'Bi Z]Y'X': ci bXU]cb'UbX'
h\Y'BU]cbU'6]fX'XUmHfi gh: i bX""

8Uj]X'; 'Ugg'Uddc]bhX'F YUXYf'cZ8Ya c[fUd\mUhi@G9""7 cbgYei Ybhnz'h\Y'k cf_'cZ'h\Y'D=7 '
VYVWa Y'VcgY'mU][bYX'k]h'8YdUf'fa YbhcZ8Ya c[fUd\mUhi@G9""

7 cbg]h]h]cb'cZ'h\Y'D=7 'YghUV]g\YXz'Ug'U'fYgi 'hcZX]gV]gg]cbg'fY'U]b['hc'gi dYfUbbi U]cb""I d'hc'
h\]g'dc]bh'h\Y'D=7 '\UX'VYYb'U'Vt'a d'YH'm]bZcfa U'Vt'a a]HY""7 cbg]XYfU]cb'U'gc []j Yb'hc'
fY []ghYf]b['Ug'U'WUf]m]'Z'h\Y'D=7 'k Ug'bch'U'WUf]m]UbX'VY [Ub'hc'di V]g\ 'U'>ci fbU'z'Ubm'f'cZ]h'
k ci 'X'VY'']UV'Y'hc']bVt'a Y'fU' ""

5Xa]b]ghU]j Y'VUgY'cZ'h\Y'D=7 'a cj YX'hc'@G9zk \Yfy'D=7 'fygYUfW'k cf_Yfg'\UX'VYYb'g]bW'G]f'
5'Yi UbXYf'7 Uff!GUi bXYfg'k Ug'Uddc]bhX'8]fYVt'cZ@G9]b%' '+' DfY]]ci g'm'h\Y'UXa]b]ghU]j Y'
VUgY'\UX'VYYb'h\Y'9i [Yb]Vg'GcVY'mi'

G

A

% (+'

Dcdi 'U]cb'Gh'X]Yg

; nbtUYVt'c[jghg UbX' hY Dc di 'Uhc b' b j Ygh[Uhc b' 7 ca a]HY f@cbXcb. 'C i Zc fX' i b] j Yfg] mDfYggž
% (, 'E' .

: c`ck !i d'ghi XmcZ hY 'a ch Yfg' UbX' W.] XfYb' cZ hY 'A UYfb] mGi fj Ym] b] h] UYX";] j Yb' [fUbhcZ
v(\$\$\$ 'Vm hY 'Bi ZY' X': ci bXUhc b' hc' Wtj Yf' hY 'WtghcZ hY ']bei]fnt' >"K "6" '8ci ['Ug' Uddc] b hY X'
8] fYVt' fZ' UbX' Ugg] ghY X' Vm A]gg; f] gY' XU' F ck b fY Y""

DfY' ja] bUf m fYgi 'hg' cZ Gw t h] g\ 'A Yb hU' 'Gi fj Ym di V'] g\ YX'] b' H\ Y' H] a Yg'] b' Bc j '% (, 'Vm; cXZ Ym
H\ ca dgcb' hc' \Y' d' hY' F cnt' U' 7 ca a]gg] cb' cb' Dc di 'Uhc b' ""

Gk YX] g\ 'Dc di 'Uhc b' Dc'] mdfY dUfY X' Vm U' fYg YUfW' k cf_ Yf' cZ hY 'D= ' " #i] g' di V'] g\ YX'] b' h' c'
dUf h]] b' Dc di 'Uhc b' G h' X] Yg'] b' > i b' UbX' G Yd' % (, 'Ug' hY' 'cb' mWt' a dfY\ Ybg] j Y' gh' X mUj U] UV' Y'] b'
9b['] g\ ""

8YU h' cZ F "F ""? i Vm nbg_]" <] g\ 'UbX Vcc_ 'cZ hY '6 f]] g\ '7 c' cb] U' '9a d] fY'] g' i bZ] b] g\ YX" <] g'
XU i [\Y f' A fg' @cb['U[fY Yg' hc' Wt' a d' Y hY'] h' ""

8Ya c[fUd\] W< UbX Vcc_ 'cZ B Yk 'NYU' UbX' Wt' a d' Y hY X' Vm A] gg' 9"" @Yggc Z' U' fYg YUfW' k cf_ Yf' cZ
D= ž' UbX' VY'] b['fYj] gY X' Zc f' di V'] W h] cb""

9i [YbY; fYVYb] _Uddc] b hY X' F Yg YUfW' GY WY hUfnt' 8Uj] X; 'Ugg' Uddc] b hY X' J] W! 7 \U] fa Ub""

% (-'

:] fghighi XmcZ hY 'fY' Uhc b] g\] d' VY h' Y Yb' Z' f h]] mUbX' gc V] U' 'a cV]] mVY [] b] g'] b' c fX Yf' hc'] b] j Ygh[UY'
F "5":] g\ Yffg' \ n d' ch Yg] g' h' Uhg c V] U' d fca c h] cb'] b' ci f' gc V] Y hmk Ug' U W X'] j YX' U h' hY 'Y i dYbgY' cZ
ZJa] mg] nY"" i bXY fU_ Yb' 'c'] b h m Vm hY 'Bi ZY' X' F Yg YUfW' i b] hc Z @G9' UbX' hY 'D= ž'] b'
Wt' 'Uvc fUhc b' k] h' hY 'A] b] gh fmc Z @Uvc i f' 'H\ Y' Z] fgh fYdc f h di V'] g\ YX'] b' Dc di 'Uhc b' G h' X] Yg'] b' A Uf'
%) &""

Di V'] W h] cb' cZ H\ Y' fY bX' cZ Gw t h] g\] b hY']] Yb W. 'U' Wt' a dUf] gcb' cZ hY ' % (+ 'UbX' % ' & gi fj Yng' cZ
hY] b hY']] Yb W' cZ Y' Yj Yb! mY Uf' c' X' di d] gž' Vm hY 'Gw t h] g\ '7 ci bVY' Zc f' F Yg YUfW'] b' 9Xi W h] cbž
f@cbXcb. ' i b] j Yfg] m cZ @cbXcb' DfYggž % (- 'E' ""

H\ Y' Bi ZY' X': ci bXUhc b' d f c j] X Yg' ž' bXg' Zc f' U' Zc`ck !i d'ghi XmcZ hY 'Gw t h] g\ 'W.] XfYb' "5' > c'] b h'
A Yb hU' 'Gi fj Ym 7 ca a] H Y ž k] h' fY d fYg Y b hU] j Yg' Zc a ' hY 'D= ž'] g' YghU V'] g\ YX' ""

hc`di V]g\`U'gYf]Yg:cZdUdYfg`Vtj Yf]b[`j Uf]ci g`hcd]Mg`"H\Y`Bi Z]Y`X': ci bXU]cb`dfcj]XYg`Ub`
UXX]hcbU`' [fUbhcZv* \$\$\$ hc`i bXYf]U_Y`U`Z f]h`Yf`Zc`ck`!i d`cb`h`Y`W]XfYb g` (h`V]f]h`XUm`

F 7 D`gdcbgc]g`Ub`]bei]fm]b]hc`Z]f]h]m]UbX`V]f]h`Vt]b]f]c`Vt]b]Xi W]YX`Vm]F`c]n]U`7`c`Y[Y`c]Z
C`Vg]h]f]h]U]bg`UbX`; m]b]UYVt`c[]g]h]g`"H\Y`f]Yd]c]f]h]Vm]8]f`@]Y]k`]g]!: Ub]b[`U]W]b]ck`Y]X[Y]g`h`U]h]h`Y`
c]f][]bg`U]f]Y`U`d]f]c`Y]V]h]UbX`ei Y]g]h]c]b]b]U]f]Y`X]Y]]g]Y]X`V]m]h`Y`A`Y]X]W]U`Gi`V]!7`ca`a`]h]Y]Y`c]Z]h`Y`D`7`
V]Y]Z]c]f]Y`h`Y`k`U]f`f]g]Y]Y`%'`+!%'` ,`L`D`7`U]W]t]i`]f]Y]g`h`Y`ei`Y]g]h]c]b]b]U]f]Y]g`UbX`di`b]W]Y]X`W]U]f]X]g`f]Y`U]h]b[`]
hc`h`Y`]bei]fm]hc`i`g]Y`h`Ya`hc`d]f]Y]d]U]f]Y`Z]c]f`U`a`c]f]Y`X]Y]h]U]Y]X`Ub]U`m]g]g`"

>Ub`%`)` \$`

: c`ck`]b[`U[fUbhcZv) \$\$\$ Z]ca`h`Y`B]U]h]cbU`6]f]h`X]U]m]H]f]i`g]h]: i`b]X]Z`D`7`V]Y[]bg`U`d]c]h]g]i`f]j`Y]m]c]b`
Z]h]i`i`Y`]b`d]f]Y[b]U]b]V]h]i]b]U`bi`a`V]Y]f`c]Z]U]b]h]Y]b]U]h]U`W]b]V]g]b]o`?`Y]b]g]b[hc`b`UbX`: i` \`U]a`"H\Y`U]W]h]]m]c]Z
k`ca`Y]b`Xi`f]b[`d]f]Y[b]U]b]V]h]i]g`f]Y]Vt]f]X]Y]X`]b`X]U]f]Y]g`a`U]X]Y`Xi`f]b[`U`k`Y]Y`_]b`h`Y`Z]f]g]h]Z]c]i`f`a`c]b]h]g]z`
UbX`U`k`Y]Y`_`Xi`f]b[`h`Y`U]g]h]k`c`a`c]b]h]g`"I`g]Y]Z`"b]V]X]Y]b]h]U`a`U]Y]f]U`U`g]c`Vt`Y]V]W]q`

%) , ' ...

8Uj]X'; `Ugg'gi WwYXg'G]f'5`YI UbXYf'7Uff!GUI bXYfg'Ug'7\U]fa Ub`cZH.Y'D=7"

Di V`]W]h]cb`cZ 9`Yj Yb`MUF`C`Xg; fck`I`dZVm>c\b`A`UWd\Yfgcbz`f@cbXcb.`I`bj`Yfg]hmcZ
@cbXcb`DfYggz`%), E]b`VtbbYV]cb`k`]h`h.Y`Gv`h]g\`A`Yb]U`Gi`fj`Ym]c`XYU`k`]h`dYf]cX`%`(+!
%)`("

Di V`]W]h]cb`cZ 7\]XfYb`i`bXYf`Z]j`Y.`h`Y`fYgi`tg`cZU`bU]h]cbU`gi`fj`Ymia`UXY`VmU`>c]bh7`ca`a`]hY`
cZH.Y`bgh]i`h`cZ7\]X`<YU`h`f]`bj`Yfg]hmcZ@cbXcb`E`h`Y`GcV]Y]mcZA`YX]W`C`Z]Wfg`cZ`<YU`h`
UbX`h`Y`Dcdi`U]h]cb`b]`Ygh]`U]h]cb`7`ca`a`]hY`ZVm>"K`"6""8ci`[`Ug`UbX`>"A`"6`ca`Z]Y`Xz`f@cbXcb.`
5`Yb`/`I`bk`]bž`%), E]b`VtbbYV]cb`k`]h`h.Y`dfY!gW]cc`dYf]cX`cZH.Y`B`U]h]cbU`Gi`fj`YmcZH.Y`
<YU`h`UbX`8Yj`Y`cda`YbhcZ7\]XfYb"

A YX]W`F`YgYUfW`7`ci`bW]`fA`F`7`E`U`[`fY]g`h`c`gi`ddcfh]UXX]h]cbU`]bei`]f]YgYb]U` cftU`

% *' !% *)'

D⇒ 'cZU`mfY[]ghfYX'Ug'U'WUf]hmi bXYf'hY'7\Uf]hYg'5Vh% * '\$"

% +'

A Ya VYfg'cZhY'@G9'8Ya c[fUd\m8YdUfha YbhVtbf]Vi hb['WUdHYfg'hc'U'gna dcg]i a 'cb'

B UHjcbU`Gi fj YmicZ<YU`h`UbX`8Yj Y`cda Ybha cj YX`tc`6f]gtr`" @j_b_`k`]h`@G9`UbX`D`7`gYj YfYX`"
:]bUbVWX`Ybh]fY`mVmIA`F`7`"8i`f]b[`h`Y`%`mYUfg`h`Y`B`UHjcbU`Gi`fj`Ymk`Ug`VUgYX`Uh@G9`
a`Ya`VYfg`cZH`Y`I`b]hidi`V`]g`YX`Z]bX]b[`g`]"`Vcc_gz`%`WX`UdHYfg`]b`c`h`Yf`Vcc_gz`UbX`',`&`dUdYfg`
]b`g`V]Ybh]Z]W/ci`fbU`g`"5`"h`Y`fYVt`fXg`Zca`V`]fh`h`tc`&`*`mYUfg`cZU[`Y`di`hcb`a`]Wtc`Z]WXY`"

;`fUbhZcf`ghi`XmicZgcV]U`a`cV`]mYI`HYbXYX`tc`YbUV`Y`a`cghcZH`Y`k`cf`_`tc`VY`Vt`a`d`YHYX`"

5`"fYgYUfW`g`hUZ`Uddc]bha`Ybhg`cZD`7`YbXYX`Vm8`YW`a`VYf`%`,`\$`"

% , %

:`fca`h`]g`dc]bhcb`h`Y`D`7`UW]j`]h]Yg`UfY`U`a`cghYbh]fY`mZcW`gYX`cb`h`Y`di`V`]W]hcb`cZ`
Dcdi`UHjcb`Ghi`X]Yg`"

Ga`U`";`fUbhg`GW`Ya`Y`YghUV`]g`YX`tc`YbVt`i`fU[`Y`fYgYUfW`k`cf`_]b`dcdi`UHjcb`ghi`X]Yg`"C`ZYf]b[`
[`fUbhg`i`d`tc`v`(\$`\$`Zcf`Uddfcj`YX`fYgYUfW`dfc`YVWg`"

% , (

DfcZ`HcbmK`f][`YmUddc]bHYX`7`U]fa`Ub`cZD`7`Z`ck`]b[`fYg][`bUHjcb`cZDfcZ`8`U`fYbXcfZ`"

Ga`U`"Ua`ci`bhg`cZYI`HYfbU`Z`bX]b[`Vt`bh]bi`Y`tc`VY`fYW]j`YX`Zcf`ga`U`"fYgYUfW`dfc`YVWg`"

% ,)

DfcZ`<cVWUZh`UbX`8`f`GW`cZ]Y`X`Uddc]bHYX`Vt`!YX]h`c`fg`cZ`Dcdi`UHjcb`Ghi`X]Yg`k`]h`9i`[`YbY`
;`fYVYb]_`"

% , *

:`Z]Yh`Ubbj`YfgUfmcZD`7`"F`YW`dh]cb`Y`X`Uh@G9`cb`&`">`i`n`i`"

% , ,

Di`V`]W]hcb`cZH`Y`Dcdi`UHjcb`b]j`Ygh]`UHjcb`7`ca`a`]hY`Y`5`Vt`bV]gY`h`g]hcfm]tc`a`Uf`_`]h]g`Z]Z]Yh`
Ubbj]`YfgUfmcZ`Vm7`f]g]hcd`Yf`@Ub[`ZcfX`"

% - \$

Gma`dcg]i`a`Ybh]hYX`8`Ya`c[`fUd`h`]W]hFU]b]b[`]b`h`Y`%`-\$g`Y`X`]b`5`df]`Ug`dUfhcZ`&`h`
Ubbj]`YfgUfmcZA`"GW`Vt`i`fgY`]b`8`Ya`c[`fUd`h`m`i`%`+`dUf]h`V]dUbhgZ`-`+`cZk`h`]W]k`YfY`Zcf`a`Yf`cf`
W`ffYbhghi`XYbhg`]b`XYa`c[`fUd`h`m`Uh@G9`"

% - %

K cf_]b['dUfhmgYhi d'hc 'Včbg]XYf'a YUbg'Zcf'Yb\UbV]b['h.Y'UVWj]]h]Yg'cZD=ž'YgdYVWU`mih.Y'fY!
YgHUV]g\la YbhcZU'fYgYUfW' d'fc[fUa a YžUbX'U'gc'hc 'Včbg]XYf'h.Y'fY'U]hcbg\]d'VYfk YYb'@G9'
UbX'D=7'''

DfcZ">c\b'<cVWUZhUddc]bHYX'7\U]fa Ub'cZD=7'Zca '%A Uf'% - %'

% -)

GWc'Ufg\]d': i bX'YghUV]g\YX"Hi h'c'fg'cZUddfcj YX'cbY!nYUf'A GWWč'i fgYg']b'gi V'YVWg'k]h'U'
\[\ 'XYa c[fUd\]WVčbhYbh]bj]hYX'hc'Udd'micb'VY\U'ZcZgi]hUV'Y'W]bX]XUHYg'''

% - * ...

:]h]Yh'Ubb]j YfgUfmcZDcdi 'U]hcb'Ghi X]Yg'W'YVfUHYX'k]h'fk c!XUmigna d'cg]i a]b'B'cj Ya VYf'
% - * "Di V]W]hcb'cZU'gi V'YVW]UbX'Ui h'cf']bXYI 'Zcf'J c'g"%) \$'''

% - +

>c\b'G]a cbg'gi W'YXg'9i [YbY'; fYVYb_]Ug'YX]h'c'ZDcdi 'U]hcb'Ghi X]Yg'

&\$\$\$

Ga U'' [fUbhg'gVYa Y'k]h'XfUk b'UbX'fYa U]b]b['Z bXg'hfUbgZYffYX'hc'h.Y'GWc'Ufg\]d': i bX'''

&\$\$%

9X]h'c'fg'cZDcdi 'U]hcb'Ghi X]Yg'Včbg]XYf'dcgg]V]]h'cZdi V]g\]b['h.Y'>ci fbU'h'fci [\ 'U'
Vča a YfVU'di V]g\Yf'''

&\$\$&

8YV]g]cb'hc'di V]g\ 'Dcdi 'U]hcb'Ghi X]Yg'YI h'fbU'mUZZVWg'ghUZZb["'Cb'mcbY'Z'`!h]a Y'dU]X'
a Ya VYf'cZg]hUZZ'h.Y'; YbYfU'GYWYhUfmi'''

&\$\$'

:]j Y'nYUf'VčbfUW]g][bYX'k]h'F ci hYX[Y'>ci fbU'g'Zcf'di V]g\]b['Dcdi 'U]hcb'Ghi X]Yg'''

8YV]g]cb'a UXY'hc'fYXi W'h.Y'g]nY'cZ'h.Y'D=7'hc'%'\$'a Ya VYfg'Z'U''cZk\ca'k ci 'X'VY'hfi ghY'Yg''č'
UXX]h]cbž'h.Y'DfYg]XYbhcZ6f]h]g\ 'GcV]h'mZcf'Dcdi 'U]hcb'Ghi X]Yg'k ci 'X'VY']bj]hYX'hc'VY'U'
a Ya VYf'cZ'h.Y'D=7'Ug'U'bcbl'hfi ghY'Y'''

>c\b'<cVWUZhifYg][bg'Ug'7\U]fa Ub'cZD=7'''>c\b'7'Y'UbX'Uddc]bHYX'7\U]fa Ub'''