

H-RXUQDO RI 7D[5HVHDFK YRO QR SS

)LVFDO QHXWUDOLW\
)RUHLJQ JKRVW LQ RXU *67 PDFKLQH"

*RUGRQ %U\VODQG

\$EUVUDFW

7KLV QRWH DUJXHV IRU WKH RUWKRGR[YLHZ WKDW (8 QHXWUDOLW\ LV QRW S
WR XVH WKH PHWDSKRU VHOHFWHG IRU WKLV QRWH 7KH UHDVRQV IRU D QHJ
DQG XOWLPDWHO\ PXQGDQH 7KH\ DOVR JR EH\RQG DQ\ PHUH DQDO\VLV RI V
7KH VWDUN GLIIHUHQFHV EHWZHHQ WKH WZR OHJDO V\VWHPV DQG PRUH LPS
ZK\ WKH RUWKRGR[YLHZ RQ (8 QHXWUDOLW\ LV QRW MXVW WKH EHWWHU RQ

\$IWHU D UHYLHZ RI WKH 9\$7 QHXWUDOLW\ FRQFHSW JHQHUDOO\ +BWWHQWLR
0HUFDO\WLOO\DWHU FRPPHQWV RQ μXQGHUO\LQJ SKLORVRSK\† DQG WKH ZD
FRPPHQWDWRUV 7KLV OHDGV WR D UHYLHZ RI WKH SULQFLSOHV ZKLFK DSSC
WKH KDQGIXO RI \$XVWUDOLDQ FDVHV ZKLFK GLUHFWO\ FRQVLGHU (8 QHXWUD
XQGHUVWRRG RQO\ ZLWKLQ LWV SDUWLFXODU OHJDO HFRQRPLF DQG SROLW
RI (8 ODZ LQ %ULWDLQ DQG VHOHFWHG (8 QHXWUDOLW\ FDVHV WKHQ IROORZ

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

7\$%/(2) &217(176

1,752'8&7,21
 9\$ 1' 1(875\$/ ,7<
 +30(5&\$17,/(
 +/- \$),1\$/ &20081,48e
 9:6 2) &200(17\$7256
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 \$675\$/,\$1 1(875\$/ ,7< &\$6(6
 1,7(535(7\$7,21 (8523(
 \$523(\$1 /\$: , 7\$,7\$,1

(81(875\$/ ,7< &\$6(6
 200(176 21 1(875\$/ ,7<
 25(,*1 *+267 5(9,6,7('
 5,27,1726(59,&(6
 2168037,21 ,668(6
 3\$&7,&\$/ %86,1(66 7\$;
 ,7 %5(\$.(5 ,('\$6
 20(&21&/86,216

,1752'8&7,21

\$ 1HZ 7D[6\ VWHP

7ZHQW\ \H DUV DJR D SDFNDJH RI EROG WD[UHIRUPV
 LQFOXGHG UHSODFLQJ WKH ROG V D V W W D Q W L H D Q O M P Z R
 RQ 9\$7 W\SH OHJLVODWLRQ LQ IRUFH HOVHZKHU U' @

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

LQWHUQDWLRQDO RVPRVLV 7KH URXWLQH WDVN RI U

H[WHUQDO IHGDFN UHYHDOV D V\WHP ZKLFK LV WF
'HQLV 0F&DUWK\ IRU H[DPSON VDLG WKDW RXU *67 O
DSSOLFDWLYLQ] 215RXUNH ZURWH WKDW \$XWUDOLD
DGPLQLVWUDWLRQ ERWK IRU WKH QXWV DQG EROWV
ZKLVWOHV RI ZRUOG \$SUDUMOMOLWOKH\LRQ]SHDQV HQY

,Q WHUPV RI HFRQRPLF SHUIRUPDQFH DJDLQVW ZL
EHQFKPDUNZHYHU WKHUH DUH D UDQJH RI GLIILFXOV
FRQIUSQW WLFXODUO\ LQ WKH SRVW &29,' ZRUOG \$V
V\WHP LV SHUIRUPLQJ SURJUHVVLYHO\ SRRUO\ DJDLQ
JRHV E\ \$V D PDWWHU RI HFRQRPLF QRWRULHW\ ER
H[DPLQDWLRQ DQG XSJUDGLQJ 7HQ SHUFHQW LV XQV
H[HPSWLRQ FDWHJRULHV DUH μUHDVRRQBBODWHWWC
UDWLRQDOLVDWLRQ DQG H[SDQVLRQ RI WKH EDVH DUH
WKDW DQ\ FKDQJHV UHTXLUH D SROLWLFDO FRQVHQV
&RVWHOOR UHFHQWO\ VSRNH DERXW WKH μORFN PHFK
RI WKH *67 UHIRUPV DQG JXDUDQWHHG WKDW WKH V\

9\$7\$1' 1(875\$/ ,7<

(PHUJHQFH DQG XSWDNH

,QGLUHFV FRQVXPSWLRQ WD[HV KDYH EHHQ DURXQG V
ROGHVW IRUP R-IRQDWXVQRQDUUHHWV VHWV RXW WKH
EDFNJURXQG RI 7KRPDV +REEHV DQG(QRKO DRFH LQ

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

SURYLGHV PRUH GHWDLO @ HQ HQKLO\ \$PHULFDQ WKHRU
5HJDUGLQJ WKH)UHQFK 79\$± &DUO 6KRXS REVHUYHG

7KH ODWHVW LQQRYDWLRQ LV WKH YDOXH DGG
LOOXVWUDWHV WKH SURFHVV E\ ZKLFK D VRUW R
QRZ DQG WKHQ JLYHV ULVH WR DQ LQYHQWLRQ R

2WKHU FRPPHQWDWRUV KDYH SRLQWHG RXW WKDW
C8 DKLRWQJ2 0

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

WD[DEOH SHUVRQV UHFHLYH µD IXOO DQG LPPHGLDW
LQSXWV LQFOXGLQJ FDSLWDO JRRGV IURP WKH 9\$7 R

(FRQRPLF DQJOHV

)LVFDO QHXWUDOLW\ LV DQ HFRQRPLF DQG ILVFDO SX
WUXH 9\$7 V\VWHP FDQ IXQFWLRQ ZLWKRXW D UREXVW
7KLV LV IXQGDPHQWDO WR WKH SRLQW RI KDYLQJ WK
SRLQW RI YLHZ KRZHYHU LW LV XQGHUVWRRG WKDW
WR EH SHUIHFWO\ HODVWLF DQG GHPDQG WR EH SHUIH
HYHU FROOLGH LQQWSDUWV WDOH ZRWHK XOWLPDWH WD[I
WKRVH ZKR DUH OHDVW DEOH WR VKLIW LW RQWR VRP

&RQVXPSWLRQ WD[HV KRZHYHU DUH VDLG WR SURPR
WD[H%HQ 7HUUD DQG -XOLH .DMXV VWDWH WKDW 9\$7
LQFRPH WD[LQ IRVWHULQJ FDSLWDO +RZPDWURQW
µUHODWLYH EXUGHQ RI WKH 9\$7 IDOOV PRVW KHDYLO
WKH JRRG 9\$7 D UHJUHVVLRQ WD[SRLQWHG RXW *67
UHJUHVVLYH WD[E\ QDWXUH DQG DV D VWDQG DORQ
YHUWLFDO \$GXLWV IRXOG EH HYHQ PRUH UHJUHVVLYH L
KHDOWK DQG KRXLQJ H[HPSWLRQV ZKLFK DSSO\ ZLGH

'LYLVLRQ UXOHV

2XU EDVLF UXOHV RQ ILVFDO QHXWUDOLW\ HYHQ LI G
*67 ODZ <RX DUH µHQWLWOHG WR WKH LQSXW WD[FU
\RX PDMH¶ 7KH PDLQ FRQGLWLRQ IRU WKHUH EHLQ
µ\RX DFTXLUH DQ\WKLQJ VROHO\ RU SDUWO\ IRU D FU
LV DFTXLUHG IRU D FUHGLWDEOH SXUSRVH µWR WKH

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

V\VWHP RI YDOXH DGGHG WD[DWLRQ¶ ±7WIK DMX E JHL QJ G
H[SUHVVHG VLPLODU YLHZV *67 IDLQGI WUKHIZRLQD QVRL DMK IP

5REHUW 2OGLQJ QRWHG LW ZDV QRW VXUSULVLQJ WKD
2QH FRPPHQWWRU KRZHYHU WKRXJKW WKH IDFWV
H[SORUH WKH LWXQJH UHSHDWHG HDUOLHU YLHZV DE
RXU *67 QRWHG VRPH RI LWV XQLTXH IHDWXUHV DQG
GHSDUW IURP IRUHLJQ PRGHV +H DOVR UDLOHG DJ
DQDO\VLV¶ DV D SURSHU WRRO IRU UHQARWYDQJDSKSDW
WKH VWDQGDUG SXUSRVLYH DSSURDFK UHTXLUHG E\ V

/HJLVODWLYH VFKHPH

-XVWLFH +LOO VDLG WKLW DSSURDFK UHTXLUHV WKH
HIIHFW WR OHJLVODWLYH SXUSRVH WR EH LGHQWLIL

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

SKLORVRSK\ WR EH IRXQG LQ WKH LQWHUSUHWD
SDUWLFXODUO\ WKH (XURSHDQ 8QLRQ PD\ LQIC
\$XVWUDOLDQ *67 7KLV LQ WXUQ OHDGV WR D F
(XURSHDQ 8QLRQ 'LUHFWLYHV RQ KDUPRQLVDWLI
WKDW SKLORVRSK\ DQG LQ LQWHUSUHWDWLYH U

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

1HLWKHU LV SROLF\ D UHIOHFWLRQ RI RU WR EH GHUL
RXW ,W LV DQ REMHFWLYH H[HUFLVH XQGHUWDNHQ E
WKHUH LV WKH QRWRULRXV IDFW WKDW H[WULQVLF P
SROLF\ RU SXUSRVH OHW DORQH IL[LQJPHLOOLHUSUH
RU WUDQVDFWH WKDW SXUSRVLYLVP KDV LWV FRQVW
μFRXUWV FDQQRW DFW DV OHJLVODWRUV¶ WR FXUH C
UHYHDOH)XOO)HGHUOOWDSSHLOQ\WUHV ODWHU UH
REYHUYDWLRQ DV RQH RI μHQGXULQJ ZLVGRP¶

,QWHULP UHIOHFWLRQV

-XVWLFH +LOO OHDYHV D IRUPLGDEOH OHJDF\ QRW M
ODZ DV ZHKO&KLHI -XVWLFH RI WKH)HGHUDO &RXUW
-¶V GHGLFDWLRQ WR WKH UXOH RI ODZ DQG WR WKH
VHUYLEFH WR WKH FRPPXQLW\ DV D ODZ\HU D VFKROD
RXU FRXUW¶HVVRU 9DQQ ULJKWO\ FDOOHG KLP D µWD[

:H QRZ KD-YHVWKH *UDKDP +LOO OHPRULHDO 6SFKFKD
+RQRXU¶V KRQRXU ,Q WKH +3VSHUHFZOWMLDHA- RMDWGH
MXGJH¶V µJUHDW¶HVOO OHG BFEHV¶HG WKH MXGJPHQW D
MXULVSUXGHG¶V - FDOOHG LW D µWHP SDOWH IR
FKDUDFWHULVHG LW µLQ WHUPV RI LWV PDVWHUO\
WD[DWL RQWKH VSHFLDO OSHUHL DSS QLF DMMWV Q &RWHIHU
WR3 OHUF DOWLOH XVWLFH +LOO NQHZ SHUKDSV PRUH D
DQ\RQH LQ \$XVWUDOLD ZLWK GXH GHIHUHQFH WR \RX
KLV SDVVLQJ µOHIV D YRLG LQ WKH \$XVWUDOLDQ MXG

-XVWLFH +LOO QHYHU JRW WR VHH KRZ KLV PXVLQJV
LQWHUSUHWDLRQ PLJKW UHVROYH LQ WKH \HUV
TXHVWLRQ ,W ZRXOG WDNH D IXUWKHU IRXU \HUV IR
±5HOLDQFH &DPSMWHUV RI VWDWXWRU\ LQWHUSUHWDLRQ
WKH ZD\ LQ ZKLFK +LOO - VDZ WKH ZRUOG RI OHJLVOD
LQ KLV GHGLFDWLRQ WRPPHQLQJ ZKLFKLSOB FRQVHQV

2QH FRPPHQWWRU VDLG KH KDG µTXLWH VWURQJ YLF
WKH ZURQJ ZD\ WRKGR XQGLQJWWDLWHV WKH SRVLWLRQ
+LOO - ZURWH RU ZKR RWKHUZLVH NQHZ KLP ZLOO DSS
ZD\ KLV V\VWHPLF FRKHUHQFH FRQVWUXFWLRQDO
DQWLFLSDWHG ODWHU DUWLFXODWLRQ RI WKIRWH HOH
µVFKHPH RI OHJLVODLWLF DFWLRQDOKVHQ &DDHW WD[

(GPRQWKH-&RQWULEXWLRQV RI -XVWLFH +LOO WR WKH 'HYHORS
-RXUQDO RI WKH \$XVWUDODVLDQLVEXVMDIFKHUUDKSDV/R EODDOLRRUL

7D[DWLRQ LQ \$XVWUDODPSOH
%ODFKH +RQ -XVWLFH *UDKDP +LOO ¶DU 1HZV -RXUQDO RI WKH
\$VVRFLDWLRQ

%XILQL7LWDQ ZDV QR KHLU EXVJKDQV DOWUVE HDJQ DIFHDVQFLDO 5H
.LUE-XVWLFH*UDKDP +LOO OHPRULHDO DOWLRSQH EK\$XWUDOLD

*]HDOH /HJDF\ RI -XVWLFH 7QSD KQX+LOO Q RQYHQWLRQ 6RXWK \$XV
SDSHU

(GPRQVEXWH WR WKH ODWH /DZWLFXHQ FULDKDP +RQWKRS SDSHU
/RJDQKHU DUH ZH ZLWK *67 ± EODFN OHVWH7QSR UDWK RSDUDFWLF

,QWHQVLYH &RQHWUHQH SDSHU
\$PHULFDQ ([SUHV :KROHVDH &XUHQF+ \$SHUDEMV 3WDWWG Y)&
0LOKH 'HVWLQDWLRQ 3ULQFLSOH 3DVW 'HQHODSFRFDWGDQG)X

\$XVWUDOLD /RRNLQJ)RUZDUG DWRP WKH)LUVW 'HFDGH
)&7 Y 5HOLDQFH &DUSHQ &R\$3W\ /WG

FI 20GLQGV LQ WKH ,QWHUSUH\$VWLF\$RQKDO 0670DDZG ,QGLUHF
:HHHQG :RUNVRS> SDSHU RZDQHQFRXUWV KDYH LQWHUSUHWHG *

7D[DWLRQ LQ \$XVWUDOLD
3DKH *67 MXULVSUXGHGQH RI WKH @DWHV \$XVWLFHQHUBQBR \$DSE
DW

(GPRQWHUSUHWDLRQ RI V 6LJQLILFDQFH \$16WKH WDWV F
DJUHHV

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

GHFLVLRQ \H~~B~~~~H~~~~V~~~~D~~~~O~~~~D~~~~B~~~~O~~~~L~~~~D~~~~L~~~~G~~ FRXUWV VKRXOG QRW E
GUDIWLQJ GHILFLHQFLHV ZKLFK UHYHO LQ REVFXULW\
\$V , UH DG DJDL~~Q~~~~R~~~~X~~~~Q~~~~W~~~~L~~~~F~~~~H~~~~S~~~~U~~~~H~~~~O~~~~R~~~~V~~ WUDQVODWH"

PLQGOHV V WH[WXD QIGP ¶K DV DLDQ UXRPH HWK B\ HFKR D GH
RIILFHUV E\ /RUG (VKHU 05 ORQJ DJR DV µXQSOHDVDQ

+RZHYHU WKH LGHD WKDW PHUHO\ OHJLVODWLQJ IRU
µXQGH BQW QVSW @CURV RSKA ¶FWRY ZUKDF GRXU *67 ODZ ZR

(YDQV DOVR RQFH DGYRFDWHG IRU D QHZ REMHFWV F
WKH *67 ODZ WR HQVKULQH (8 QHXWUDOLW\ DQG JXDU

*67 LV D JHQHUDO WD[RQ FRQVXPSWLRQ H[DFWO
WKH FRQVXPHU KRZHYHU PDQ\ WUDQVDFWLRQV
GLVWULEXWLRQ SURFHVV EHIRUH WKH VWDJH DW
FUHGLW IRU LQSXW WD[LV PHDQW WR UHOLHYH
LQSXW WD[SD\DEOH RU SDLG LQ WKH FRXUVH RI
LQSRQV WFDQRYRQ REWMDV FVWQSRQ

7KHVH WKHPHV DUH ¶RUVW RLVHGOHV (YDQV \$XQ WUDOLD ¶
LQ GUDIV \$WQH ¶QWLRQ LV GUDZQ WR VWUXFWXUDO GL
RWKHUV LQFOXGLQJ LQ WKH GHVLJQ RI LQSXW WD[UH
LV XVHG DQG XVHG GHOLEHUDWHO\ ,W LV REVHUY
µVLJQLILFDQWO\ GLIIHUHQW WR WKH 1= WHUPLQRORJY
WKH FRQWHQWLRQ WKDW WKH OHJLVODWXUH PHDQW V

7KH µGLIILFXOW TXHVWLRQ ¶ LV SRVHG DW DV WF
µOHADVDLGRXO LQVWQGHG ¶KDW ¶WKHWEBB@W@PLD
MXULVGLFRDQV ¶LQJ WKH 8. DSSURDFK PD\ ZHOO KD
RXWFRPH LQ \$XWUDOLD +RZHYHU LW GRHV QRW IRC
RI WKH 9\$7 'LUHFVLYHV FDQ VRPHKRZ QRZ OHYHUDJH

7KH RUGLQDU\ H[SHFWDWLRQ LV WKDW OHJLVODWLQJ

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

2QO\ WLPH ZLOO WHOO

(DUO\ LQ RXU *67 MRXUQH\ 3URIHVVURU 0LOODU DVNHG
GHYHORS LWV RZQ YHUVLRQ RI QHXWUDOLW\ WIRJZBQQ\
\HDUV DQG WKH DQVZHU QRZ JLYHQ E\ KHU LV WKH VL
GHULYHG IURP 'LY SURYLVLRQV 7KLV LV D FRQFOXV
±7KH SULQFLSOH RI QHXWUDOLW\ LQ \$XVWUDOLDQ *67

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLV

~~LQWHUSUHWLQJ \$ 3VWUHDOLDO 16KQ UHYLHZV WK
FRQVPSWLRQ DV PDWWHU RI HERQRF SROLF~~

~~ZKLV LV WDNHQ WR VLJQDO WKDW QR QHXWUDOL
VWHP HLWKHU E\ UHIHQFH WR (8 QHXWUDOLW\ RU
FKDQ KAGE`P SURP `WU@`KDQQKWPIP LKDLWp\RUR A~~

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

SURYLVLQRV PRUH XVXDOO\ LQYROYH D FRPSURPLVH
JHQHUDO SROLF\ FDQQRW EH UHMG DV WKH ODZ PXVW

2Q WKH IXWXUH ~~U3~~ ~~LP~~ ~~SD~~ ~~DE~~ ~~QW~~ ~~RIO~~ 2OGLQJ HOVHZKHUH VXJ
DYRLGDQFH DV D NH\ IHDWXUH RI WKH WD[μ ZLOO FRQ
EXW ~~W3~~ ~~KD~~ ~~W~~UFDQWLOH

H[SODLQHG WKDW XQOHVV WKH μWH[W VWUXFWXUH F
WR VXSSRVH WKDW VRPH RWKHU PHDQLQJ ZDV LQWH
μQDWXUDO DQG RUGLQDU\ PHDQLQJ¶

1RW HYHU&RRSHU DZLQRWKHV VDPH OLJKW DW WKH WLP
VDZ WKH FDVH DV UHVWLQJ RQ μILFWLRQDO IRXQGDW
FKDQJH WR SXZSRGLHLDVPHV ODWHU KRZHYHU +LOO -
μVWHS EDFNZDUGV ODRROELWBRURSONK BZDRDHF DVH ZKHU
μWKH FRXUWV DFFHSWHG WKDW D SXUSRVLYH FRQVV
DSSOLHG WR UH2WHQKHVODZV¶LW DV PHUHO\ DSSO\LQJ
&RRSHU %BRNRW XVH DOO WKH ODWHU ODQJXDJH R
WKDW GLUHFWRQ KRZHYHU VRPHWKLQJ ZKLFK LV EF

&RRSHU %ZDRRNRH/ORZHG WKH QH[W ZHHN E\ HQDFWPH
SXUSRVLYH LQWHUSUHWDLRQ DV WKH SU\$FWLQOLQJ
,QWHUSUHWDLRQ QFW SURYLVLRQ DPHQGHG LQ
WKDW ZRXOG SURPRWH WKH SXUSRVH RU REMHFW « \
ZRXOG QRW¶ \$ SDUDOOHO UHYRQXWLRO ZIKVRKWKHKU
ELSDUWLVDQ VXSSRUW 6LPLODU SURSRVDOV KDG HD
LGHD WKDW W&R\$SU%ZDRRSLR
SURSRVDO ZDV μVRPHWKLQJ RI DQ H[DJJHUDWLRQ¶

(YHQWV OHDGLQJ WR V \$\$ DU\$XWPDOLDG/DLQ-BXQF
7KH QRWH VD\YDULRXVO\ WKDW V \$\$ ZDV QRW μUD
PDGH μPDQGDWRU\ WKDW ZKLFK ZDV SUHYLRXVO\ IDFX
RQ DV GLG 6XSUHPH &RXQW +RLOS%RWROR:DLQGRZV

μDUJXDEO\ PDQGDWEHV \$XOORVQLH VPOVR REVHUYHG W
DSSURDFK LV μPDQGDWHG E\ V \$\$

6XEMHFWLRQ RI \$\$ WR LWV RZQ SURFHVVHV VKRXOG
WKLV RXWFRPSHURYLVLRQ DOVR DSSOLHV WR SDUWLFX
MXVW DV PXFK DV WR DQR\$FW DV DXOORVQLH ZUR
ORUQLQJ WKUDDO GQWHOOLJHQW OD\ SHRSOH ZRXOG IH
3U\RU SHQQHG D PHPRUDEOH FDUWRRQ GHSLFWLQJ O
ILUVVQH FRPPHQWWRU VDZ V \$\$ DV PHUHO\ JLYLQJ
FRPPRQ ODZ DSSURDFK HVSHUFHLYHG LQ WKH QHZ SXU
WKUHDW « WR EDVLF KXPDQ ULJKWV ZLWK WKH OLW
SURWHFW ZKDW LV ULJKWIXOO\ WKHLUV

ORGHUQ DSSURDFK

7KH LGHD WKDW SXUSRVLYH PHWKRGV DUH VRPH μPRG
LV D SRSXODU P\WK IRQGO\ UHFDOOHG 7KH KLVWRU
JHQHUDOO\ UHJDUGHG DV μHTXW\ WR KHWKPL VPRDLWHX WJX
UHFHQW UHVHDFK VXJJHVWV

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

D SXUSRVLY\ @ DFU\ LQJ SXUSRVH LQWR HIIHFW WKH\
ZRUGV D PHDQLQJ WKHE\ MDD\ QRG EWDR\ ZKLFK HQ\
7KHLU EDVLF LGHDV ZHUH TXLFNO\ HPEUDFHG ILUVW

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

WKH VXEMHFW PDWW:KUH DQG WKH ERVFRV FRQVH[W LQ W
LV WR FRQWH[W ERWK ZLWKLQ DQG RXWVLGH WKH VW
LQ WKH DPRXQW RI FRQWH[WH MHDW FMKHW FDQ FRQW[D
PDWWHUV H[WHUQDO WR WKH VWDWXWH (GHOPDQ - I
FRQVH[W LV OLWHUODO\ WKRVH PDWWHUV WR EH FRQ

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

SUDFWLFH RI μSODQWLQJ¶ VWDWHPHQWV RI LQWHQWL
XQQRWLFHG HLWKHU

\$V KDV DOVR EHHQ REVHUYHG WKH ZRUVW RQH WR FR
IRU GUDIWLQJ WKHP

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

RI LQWHUS\$QD WLRQ PRUH UHPRWH VRPHWKLQJ LV I

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

HGLWLRQV RI WKH EXHIBIT QWLQ WKH VL[WK HGLW

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

H[SUHVV WKH ODWWHU LGHD E\ GHVFULKEHQ\ QDUMUXFOND
WR VWDUW ZLWK WKH WH[W LV PHUHO\ DGMHFWLYDO D
BZQ&W HRKQ\ WFX\WC WFRHTRHJ\X SRXUISRV\ORR\KXWQCBZ VEMUXY
WK&D\W , QVXNDQ\HEHHQ FLWHG WRR PDQ\ WLPHV WR EH

,I DQ\WKLOJ SXUSRVLYLVP LV DQ LQFUHDVLRQJ\ VH
VRPH\KLEDDG QRWKLOJ WR XQGHUPLQH ,W LV HDV\ W

KQ ZLWK WKH EHQHILW RI KLQGVLRJKW RI FRXUVH 7KH
SHJUH RI MXPSLQJ DW OHJDO VKDGRZV LQ WKH DIWH

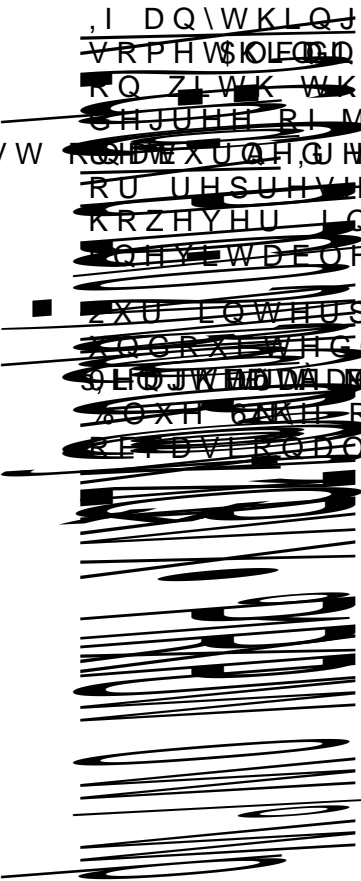
O p E €Q FXVW K&H\XU\H\G\H\RI QRW\USQ\DR\RO\DW\DW\PH\ LQW\H\US\OB\WD
RU UHSUHYHQWLQJ D VZLQW\H\OPH\SHD&R\OXPDUH ODUJH

KRZHYHU LQVRIDU DV WKH\ VXJJHVW D SRVLWLRQ QR
QHY\WDFOH DQG LPPLQHQW UHYHUVDO

XU LQW\H\USUHWDWLRQDO KLVWRI\ VKRZV ORQJ SH
KQORX\WHGO\ QRZ PDGH DOO WKH PRUH HQGXULQJ E

SLQJ\W\H\W\AD\DO\DAK\MO\H\BY&Z\VO\SH\H\O&DQ\TX\H\IB\H\H\W\H\W
K&XH\K&H\BQJRLQJ FRKHUHQFH DQG UXOH RI SXUSR

KLEDFLRQDO MKLL p \EOMWFLRU °n'€ \$Q™T1 RZ



SUHGLFDWIGGODWHU GHFLZQRQMXSRQIWURPHNGD SHVVLPLV
 ODWHU DGMXVWKKLVGSDVWMDRQWKH HPSKLDVVDVYHVKGLIFW
 DJDLQVW WKH HYLGHQFH :LJQH\ 6& ULJKWO\ VDLG LW
 FDVHV6DHLNGG DYHQQ[P\ YGDHZHG QR PRUH WKDQ D MXGL
 WR EH FDUHIXO ZLWK H[WULQVLF PDWHULDOV VRPHW

7KH IDFW LV WKDW WKH +LJK &RXUW KDV QRW UHWXU
 HYHQ VXUYH\ RI WKH FRXUW¶V ZRUN RYHU WKH SDVW
 QRW WKH QRVW DOKLDW ZH DRPHHPHUHO\ DZDLWLQJ VRPH
 VW\OHV ZKLFK UXOHG WKH V 7R WKH H[WHQW LW
 FRQILUPHG WKLV LV ZKHQ LW VDLG WKDW D OLWHU
 HVFKHZHG E\ WKLV &RXUW¶ DQG WKDW GDDHGR I WK
 µVXJJHVW D UHWXUQ WR D OLW WUQDHS/SDQDQKVVRRFB
 PLQG WKDW FDVHV UHDFKLQJ WKH +LJK &RXUW µUDUH
 DQG ZURQJ PHSDQDQKVVRRFB OHDYH HQVXUHV WKDW WKRVH
 QXDQFHV DW WKH HGJH RI ZRUGV ,W LV RQO\ QDWXU
 SULQFLSOHV E\ GLIIHUHQW MXGJHV PD\ OHJLWLDPDWHC

LQWHUSUHWDLRQ¶ FDQRQV DQG PD[LPV DKHH RQO\
DUH GULYHQ E\ IRUFH RI FLUFXPVWDQFH DQG SHUFHS
FKDUDFWHULVHG WKHP DV µRX)W H/QHUKY B Q W D L Q R W K H R X Z I
IUDLO JXLGHOLQHV WR ZKLFK UHFRXUVH LV/LKNDG DV D
SURYHUEV WKH\ DUH µDSSURSULDWH RQO\ LQ VRPH F

:KDW MXGJHV VD\ DERXW LQWHUSUHWDLRQ LV DOVR
6WDWXWRU\ LQWHUSUHWDLRQ LQYROYHV WKH DSS
PHWKRGU LV LW VXFVHFWLEOH WR HPSLULFDO DQ
OLQJXLVW\W\SL¶W H D GHJUHH RI RYHUODS EHWZHHQ O
LQFOXGLQJ V\OORJLVWLF UHDVRLQJ DQG LQGXFWL
µDUH QRW VROYHG DV RQH FDQ VROYH D VLPSOH OLQH

6HOI HYLGHQWO\ µSUHGLFWLRQ RI WKH OLNHO\ UHV
SUHFLVH V\OORJLVWLF UHJDUG FRPPHQWDRUV KDYH VSI
FUHDWLRQ RI D µM\XGLFLDO D SXOJEB¶WLF EXVLQHV¶
VWDWXWRU\ LQWHUSUHWDLRQ µLV QRW VXFVHFWLEO

/RUG 6WH\Q KDV VDLG IDPRXVO\ WKDW LQWHUSUHWDLRQ
HOXVLYH WR EH HQFD S\KXLDLWHFR UQ H F W K H R W L W P D\ W
WKH SRVLWLRQ -XGJPHQVV DUH QRW ZRUNV RI DUW
DUWLWV \$V +LOO - KLPVHOI SRLQWHG RXW µDQ LWHP
DUWLWLF VWDWHPHQW ZRXOG QRW EH D ZRUN RI DU

%DV&KRR V LQJ 3ULQFLSOHV RI\$,QWHUSUHWDLRQ DIZDQ X U\DNHU
Y &DPSEHOO &/5 DW 6D5DLQR Q/GK HQ/L*RMU/DW D V XWRU\
,QWHUSUHWDLRQ 3ULQFLSOHV DQV3UDJPDWLV IRU D 1HZ \$JH
0DXQVHOQ Y 2@LQV DWR USRUFDWH \$IIDLUV &RPPLV&LRQ Y <XLO
DW &% &ROG 6WRUDJH 3W\ /WG Y ,0&& *U@ X\$&\$XV D W D O L @ 36/SL JV
&-6WDWXWRU\ ,QWHUSUHWDLRQ ,GHQWLZFDQJWV QKH D ZDQJLVWLF 5
)UHQRV W XWRU\ ,QWHUSUHWDLRQ (LQVLXQVLYH D W D W A D X Q F V H R S I
DGGU DW
%DUZL)RNU Z R U R G 3 H V D M K W R U\ ,QWHUSUHWDLRQ (LQWLQ \$XVWUDOLD
&RPFDUH Y 39<@ +&\$ DQW H Z D U Q Y \$ W F R > & R Q Q V R S V 3 W W / W G @
*RUGRQH-,QWHUDFWLRQ EHWZHHQ 6FLHQFH DQG>/D Z @ \$ /HJDO 6FL
)UHQRK &- &ROORTXLXP SDSHU
6ORZXRGLQDU\ 0HDQLQJ DQG (P S D M X F W M P / D Z 5 H Y H H Z X O G H U Y D Q
1RRUWZLMN &RPELUNWLVWLV 3 O H D R S H D Q - R X U Q D O R I / D W D Q G 7 H
> @
)UHQRK &H Q F H D Q G - X G L F L D O 3 U R F H H G L Q J V R X U H Y H R W V D Z [D Q @
0HGLFLQHDW FI)UHQRK &-

P E

D G G D

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

EH 6WDWXWRU\ LQWHUSUHWDWLRQ PLJKW EH DQ μDU
VNLOO EXW WKDW VNLOO LV DOZD\ WR EH DSSOLHG

\$V DQ \$\$7 VHQLRU PHPEHU SXW LW LQWHUSUHWDW
DSSOLFDWLRQ RI PHQWV QR GRXEW D
GHJUHH DV +LOO - KLPVHOI IUHHO\ DFNQRZOHGJHG
MXGLFLDO IXQFWLRQ DQG VKRXOG QRW EH RYHUVW
LQYROYHV ODZ PDNLQJ WR WKH H[WHQV PLW KLQ DRJ YHH
WKHQ WKDW LQWHUSUHWDWLRQ LV D WLJKWO\ GLVFLS
EH DSSOLHG 6HFWLRQ \$\$ DQG FRQVWUXFWLRQDO FK
SUDFWLFH RI WKLV WHFKQLFDO FUDIW

3XUSR VH SROLF\ DQG FRPSURPLVH

7KH GLVFXVVLQ RI WH[W FRQWH[W DQG SXUSR VH OH
LQ VWDWXWRU\ DQDO\VLV 3XUSR VH DQG SROLF\ DUH U
RU ZLWKRXW GHOLEHUDWLRQ \$V -DFLQWD 'KDUPDQDQ
WKH +LJK &RXUW LOOXVUDWHV WKH VSKLF LDO DYHXC

™ WKH UHOHYDQW TXHVWLRQ LV XVXDOO\ KRZ IDU LGHQWLILHG SXUSRVH RU SROLF\

™ SXUSRVH DQG SROLF\ DUH VXUHU JXLGHV WR PH SURYLVLVRQV DUH FRQVWUXFWHG

™ GR QRW FRQVWUXFW \RXU RZQ LGHD RI GHVLUDEO VWDWXWRU\ SXUSRVH

™ SXUSRVH UHVLGHV LQ WKH WH[W DQG VWUXFWXUH H[WHUQDO VRXUFHV

\$ IXOO WUHDWPHQW RI WKHVH IDFWRUV LV EH\RQG W PDGH DERXW μSROLWLFDO FRPSURPLVH¶ KRZHYHU J LQ SUDFWLFH 7KH FRVWV RI SURYLVLRQV VWDWLQ VWDWXWH UDUHO\ SXUVXHV VRPH VLQJXODU SXUSRVV YDOXHV ZLOO EH SURPRWHG RU VDFULILFHG LV WKH μ

\$V *OHHVRQ &- H[SODLQDUEY H[WHUQDO VWDWLQ VWDWLQ ZKDWHYHU DGYDQFHV WKH SULPDU\ REMHFW VWDWH SUREOHP¶ DQG PD\ LQYROYH μD SXUSRUWHG H[HUFLY SXUSRVH¶ PHWLPHV SDUOLDPHQW PD\ GHOLEHUDWH H[SUHVVLQJ D SXUSRVH¶ DV LQGHG WKLV PD\ EH WK WKH ODPHQG - RQFH VSRNH DERXW μSROLWLFDO L UHJDU\ JHQH :KHHODKDQ 6& PDNHV WKH VRXQG SRLQ H[DPHQ YHU\ FORVHO\ ZKDW IXQFWLRQ WKH SDUWL VWUXFWXUH RI WKH HQDFWPHQW¶ LQ RUGHU WR DVFH

/HJLVODWLYH LQWHQWLRQ

,Q WKH ROODERQRY ODUJLQWLYH LQWHQWLRQ LV VOLSSHU\ SKUDLVLRQDOO\ \$XVWUDOLDQ MXGJHV KDY

5RGULJXH] Y 8QLWHG 6WDWHV D&)0(8 Y 0DPBRHW@ +&\$ DW > @DUU Y :HVWHYQ \$XVWUDOLDQ VWDWLQ VWDWLQ *HQHJDO@ +@SUTXHW DW >16@SERULJLQDO /DQG &RXQFLO Y 0LQLVWHU \$@P#@SVWHULO DW >7MQJDUUD\L Y :HYWH@+&\$ VWUDWD@D @ &RPPLVLRQHU IRU 5DLOZD\ &/5JDOLDQ RW 8QLW 7UHQG 6HUYLE /WG @ +&\$ \$W ¥ :@VWHUQ> \$XVWUDOLDQ VWDWLQ /OR\G¶V 8QGHUZULWHUV @ &@VV DW > @ :LOOLDPV Y :UHFN %D\ SERULJLQDO +@PXPXQW\ @RXPFLV UHFHQW /DFH\ Y \$WWRUQH\@H@SUDODRPFLO@YLF Y>7KH@4X@HQ DW > @ /HH Y 16: &ULPH &RPP@V@&\$Q DROH Y 0LQLVWHU IRU ,PPLJUDW 3URWHFWL@Q&\$)&)DW Y 6@DUSFDQ 3@)\&@& DW > @ 5RGULJXH] Y 8QLWHG 6WDWHV W:RRGV LGH (QHU\ /WG)&\$& DW > @ IRU H[DPSON &DUU Y :HVWHYQ \$XVWUDOLDQ DW > @ *OHHVRQ &PHDQLQJ RI OHJLVODWLRQ &RQWH[W SXUSRVH DQG U 3XEOLF /DZ 5HWHZ (GPRQVWUXFWUDO 7D[5HIRUP :KDW 6KRXOG\$XVWUDOLDQV 7DR)RUXP DW :KHOODRQV HPSRUDU\ ,VXHV LQ &RQVWUXLQJ 6WDWXWHV :KHQ :RUGV RI D 7D[75W%DURVV D &RQYHQWLRQ QYSHU"

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

TXDUWHUV LW LV 'HVSDWUJURZLQJPEBGGHRIWCHHGH
YLHZV HOV BZGHDG HJUHH RI MXGLFLDO SURYRFDWHXU

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

FKDUDFWHULVHG WKLV GHYHORSPHQW RDWK BU D D G W F D C

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

WKDW LQ WKH μDUHD RI VWDWXWRU\ LQWHUSUHW
SURSRXQGLQJ ULJLG UXOHV (YHQ WKH XVH RI JHQH
EHFDXVH RI WKH WHQGHHQF\ IRU VXFK UXOHV WR EH JL
7KH IOH[LLELOLW\ RI SXUSBUW @W PDV VBBWLP

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

(PSKDVLV RQ FRKHUHQFH

7KH PRGHUQ HPSKDVLV RQ μFRKHUHQFH¶ LQ VWDWXW
 RWKHU OHJDO DUHDV DQG LV D Q3DURXUHQFOV S\SRXU HVM L
 UHFHQWO\ SXEOLVKHG ERRN RI HVVD\KHW&RKHUHQFH WKH R
 6WDWXWRU\ , QWGLWSHG VEDWH RQHLV%ERQH VLV RQH RI W
 LPSRUWDQW FRQWULEXWLRQV WR VFKRRODUV ML % RQH V
 ,W ZDV WKH V\ VWHP LF FRKHUHQFH D W KHFKH S RU V+LDOGH
 \$OOVRS - WKHQ WKH VSHFLDO OHDYH SDQHO WKDW K
 ERWK DV WR RXWFRPH DQG LQ SULQFLSOH

6LU \$QWKRQ\ 0DVRQ VDLG WKDW μFRKHUHQFH KDV LV
 VWDWXWRU\ LQWHUSUHWDWLRQ LQ VRPH FDVHV ZK
 FRPSHWLQJ LQWHUSUHWDWLRQV¶ SRLQWHG RXW WKDW
 VRPHWLPHV KDUVK LW LV μUDUHO\ LQFRKHUHQW¶ DQ
 MXGLFLDO FRQWULEXWLRQ¶ KUDOLW\ RI WKH +LJK &RXU

:KHUHQFH WKH WH[W UH DG LQ FRQWH[W SHUPLWV RI
 WKH FKRLFH EHWZHHQ WKRVH PHDQLQJV PD\ XOV
 WKH UHODWLYH FRKHUHQFH RI HDFK ZLWKLQ W
 LGHQWLILHG REMHFWV RU SROLFLHV

7KHVH FRPPHQWV FRPH IURP *DJHOBUORQBS.HDQHG-LG
 6=7\$E\ *DJHOHU - DJDLQVHLV VHQW WKORUHQHU FLGHG D
 XQDQLPRXV EHQFK VWDWHG PRUH JHQHUDOO\ WKDW
 FRKHUHQFH LQ WKH ODZ¶

SULQFLSOH ZDV QHYHU IDU IURP WKH VXUIDFH ,W LV
KDUGO\ FROG \$URVXVWVWH ILUVW WLPH KRZH YHU D +L
IRUPDOO\ HQG RRG LDC XMKWUPDWHV WKH SUDFWLFDQ LPS

\$V RWKHUV KDYH QRWGH OHJDO FRKHUHQFH μKDV
WKR XJWK R XSR QHYHU ZHO D DUWL \$XOD WFOH EDO WFRGE
FDUULHV ZLWK LW D VHQVH RI FRQVLVWHQF\ DQG WK
'LFWLRQDULHV WDN DERXW FRKHVLRQ VWLFNLQJ W
LQWHJULW\ ,W LV VHOI HYLGHQWO\ D SURWHDQ FRQ
VXEMHFWLYH LPSUHVVLQR &RKHUHQFH LV UHVLVWDC
GHPRQVWUDWLRQ 8QGHU WKH KHDGLQJ μLQWHUSUHW
6WDQIRUG (QF\FORS D DGLNVRD ERXLO RWKRS K UHTXH QW LC
SKLORVRSKLFDO FOLPDWH XSRQ WKH LQWHOOFWX
WKRULVLQJ /HJDO FRKHUHQFH DV D μVSHFLDO YL
ORJLFDQ FRQVLVWHQF\ EXW WKHUH LV PXFK GHEDWH

:LWKLQ D VWDWXWH FRKHUHQFH LQYROYHV WKH V\VV
ZD\ JUHDWHU WKDQ PHUH FRQVLVWHQF\ RU QHXWUDO
HOHPHQW VXJJHVWHG E\ WKH FRQFHSW RI μFRKHUHQ
μJUHDWHU WKDQ WKH VXP RI LWV SDUWV FGDUDFWHU

ZC

W LU `` 0,HU WDA SIBIWA@PRD n p R-RC H p μW €H 7n 4A p 0Q0Q0

SUHVXPHG WR ZRUN WRJHWKHU G\QDPLFDOO\ HD
DFFRPSOLVKLQJ WKH LQWHQG HG JRDO

\$W WKH ERWWRP RI LW DSOXWUDGDDWQ/DHLLDO Q RYRHCQ W
SHUKDSV WKH PRVW EDVLF RI REVHUYDWLRQ W D WNKH
WR ZKLFK D μFRQVWUXFWLYH:GRDDWV\QHVKR XORG UHF E
μFRKHUHQFH¶ LQ WKH ZRUOG RI VWDWXWHV LV LQHYL
FDQQRW EH PDGH WR ZRUN DV WKH GHJUHH RI UHPHG
OHJLVODWLYH WHUULWZBUY ;DO RANUKH UD F S W X D WIKRQ V W
VLPSO\ SHUVLVWHQWO\ DQG LUUHPHGLDEO\ LQFRKHU

\$V D 1HZ =HDODQG MXULVW SXW LW ± μ,W LV REYLR
OHJLVODWLRQ KDV D WRWDOO\ FRKHUHQW VFKHPH WH
DQG WKDW DOO LWV REMHF\Q WISLV DHR IUW DGLWUHPLOQF
7D[&RPPLVVLRQHU 0LFKDHO '¶\$VFHQ]R DOZD\ V ORR
VWDWXWRU\ LQWHUSUHWDWLRQ μWR PDNH WKH ODZ Z
IDVKLRQ WHPSHUHG E\ D WKRXJKWIXO% DZ D W H Q H V O H R
PDGH VLPLODU FRPPHQW DV IROORZV ± μ7R DFKLHYH
WR WDNH DQ DSSURDFK WKDW VWULNHV D EDODQFH E
FRQWH[W LQ LQWHUSUHWLQJ WKH ODZ¶

3URFHVV PDSSLQJ LQWHUSUHWDWLRQ

7KH FDVHV DQG SUDFWLFH PDNH LW FOHDU WKDW WH
WLPH ZLWK WKH ZKROH SURFHVV VWDUWLGHGXG BGLQL
WR EDVLFV WKH DSSURDFK LV μWH[W ! FRQWH[W ! V
GHVFULEHG DV WKH μEHVW WKDW RQH FDQ PDNH RI W
VHQVH&¶FRQWH[W LQ WKLV VHWWLQJ ± FRQWH[W LQ WKH
HOVH DSSURSULDWH WR EH FRQVLGHUHG LQ WKH SD
SXUSRVH¶ LV DQRWKHU ZD\ RI H[SUHVVLQJ WKH VDPH

:KDW WKHVH DSSURDFKHV UHIOHFW LV DQ HVVHQWLDQ
WKHLU FRUH7KH DPHUHWDOVR SDUW RI DQG FRQVLVWHQ
V\OORJLVWLF DSSURDFK WUDGLWLRQDOO\ DSSOLHG EV
LV LV GHWHUPLQHG WR EH PDMRU SUHPLVH LV DSSC
WR SURGXFH WKHHOHWUDLOQQZK DW WKH VWDWXWRU\

+LQZ LV WD[WR EH XQGHUWR70 [E6 SFRXLDWV VW
&RRKH &ULPHV %LOO \$ -XGZH FV B D Q R Q /DZ -RXUQDO
'33 Y :DO\HU@ 96&\$
&KDOOHQJHU &RUSRUDV@LRQ =//G Y 0,5
'¶\$VFHQ]RQJ WKH 5RDG WR 'DPDVFXV \$ IUDPHZR\ENURDQ CRWHUS
\$XWUDOLDQ 7D[W WLRQ
4XLJ,QWHUSUHWLQJ *67LQZKLV \$XV.WH D W H G W U R V S H F D W D Q G 3U

)&6 Y 0LQLVWHU IRU +@P)B\$)&DLUDW > @ IRU H[DPSON
(SLVRGLHW RUSUHWDWLRQ 12:
'XIII\ 2¶%KHQ,QWHUSUHWDWLRQ \$FWV 5HTXLUH ,QWHUSUHWDW
DQG &ULPLQDO /LDELOLW\81Q: 4DZHXDQDQ
F[SDUWH 7DVPDLDQ %UHZHU&HV 3WDVWG /LP%WVQRDQWKH
8VH RI -XGJH)HGHUDO /DZ 5WRXWK \$XWUDOL@Y+&\$WD@W > @
5H 1RODQ &/5 DDUGRQ Y \$WWRUQH@ *B\$HUDOW7KH@ +LOO
-X Z 5ROI 0WKH 7DH 5HIUP 3U HVV

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

ZKHUH SROLF\ REMHFWLYHV DQG H[WULQVLF PDWHULD
6DHHZOV FLWHG DQG /RJDQ - TXRWHG IRU LW EHLQJ μ
HQDFWPHQWV QRW WR PDNH WKHP¶

-XVWLFH .LUE\ RQFH REVHUYHG D FHUWDLQ WHQGHO
H[FXVH IRU WDNLQJ D μSXUHO\ WH[WXBQ\ DSSURHDFK¶
VSRNH RI WKHLU μODFN RI HQWKXVLDMLFKRUGQUHYSID
VDLG LW ZDV μSRVVLEOH WR H[FXVH PDQ\ LI QRW DOO
UHDFWLRQ WR OHJLVODWLYHH DQREDOOLWWRB @ @WLXUH¶
ZDV RQFH FDOOHG WKH μODVW UHIXJH RI MXGLFLDO K

:KHWKHU WKHVH REVHUYDWLRQV UHPDLQ WUXH WRGD
SRLQWV FDQ EH PDGH)LUVW WKH WHPSWDWLRQ WR
HVSHFLDOO\ LW DSSHUV DPRQJ QRQ MXGLFLDO H[SH

,W RXJKW WR EH FOHDU WKDW VLPSON\ UHTXLULQJ WKD
 WR SDVW O\$WHWUDOLVOR\ QKH FRQVWUXFWLRQDO WDVN
 WR H[SRXQG WKH PHDQLQJ RI WKH VWDWXWRU\ WH[V
 LQWHQWLRQ RU WR UHPHG\ SHUFHLYHG OHJLVODWLYH
 DQG LW LV QRW WKH SDLG\ HV DQ µRUGLQDU\ PHDQLQJ
 UHJUHVVLQR :L\$XQHW 6 8 OLO ODUW LFOYL \$D\IXOO\ GUHZ
 WKH µLPPHQVH GLVDSSRLQWPHQW¶ WKDW YRPH SUDFV

«DSSHU WR VZHHS DVLGH DOO WKLW EDFNJURX
 LQWHUSUHWDLRQ RI D SDUWLFXODU SURYLVLQR
 , VD\ LW ± WKH WH[W RI WKH \$FW 7KDW LV WKH
 'RQ¶W WKH\ NQRZ DQ\WKLQJ DERXW WKH 9\$7 H[S
 DIWHU DOO D YDOXH DGGHG WD["

'ULYHQ E\ VHSUDWLQR RI SRZHU WKH UHTXLUHPHQ
 FRQVWLWXWLRQDOVREYLW KMU VRPHWKLQJ QHZ QRU D
 WH[WXDOLVP¶ PFK OHVV WKH µPLQGOHVV WH[WXDOL
 WKH WR 1H\$WUDOLZMU PHUHO\ WR EH FKDUDFWHULV
 SRVLWLYH IRU GHWHUPLQLQJ \$ZKFDKIEHRIQ ORESDWIGW
 LV D FRPPRQ PLVXQGHUVWDQGLQJ DV LV WKH LGHD V
 DQVZHU WR D OHJDO SUREOHP PXVW HYLGHQFH MXGLF

&ULWFLVLQ, QWHUQDSW-LRDU \$HO VLSRUWR UH DG ZRUG
 SURYLVLQR WH[DPSON DSSHUWR EHWUD\ D PLVXQGH
 SULQFL\$WHVD\ DOVR VXJJHVW D PLVSODFHG DWWUD
 VWDWXWH¶ QRWLRQV ORQJ GLVFUHLWHG

PD\ HTXDOO\ EH H[FOXGHG E\ SDUWLFXODU SURYLVLRO
6R IDU DV WKH ILUVW LV FRQFHUQHG WKH FRPP
ZLWKRXW DQDO\VLV RU UHIOHFWLRQ 1RWKLQJ LQ 'LY
FUHGLW DFFHVV DQG FKRLFHV EHWZHHQ LQWHUSUHV
JHQHUDOO\ GLUHFWLQJ, QWHSRHHWDLRQ \$FW

7KH UH768W DQVR VWDQGV DJDLQVW FRQVXPSWLRQ EI
UHMHFVW HFRQRPLF HTXLYDOHQFH LQ WKH *67 VSKH
LQFRPH WD[SRULFW &RUGDUD DQG 36&U WKDLWL FR
'LY LV QRWKLQJ RWKHU WKDQ D SURYLVLRO DLPH
HVWDEOLVKHG E\ WKH &-(8 ± WKH IXQGDPHQWDO SRLQ
FRQVLGHUDWLRQ DFWSDOOW UHRYHYG¶ LV WKDW +DF
WKLQJV WRR IDU WR DFFHSW WKDW ILVFDO QHXWUDOL
'LY KDV DQ\ OHJLWLPDWH WLH EUHDNHU UROH WR S

;\$ \$VLD 3DFLILF

)RUHLJQ GHFLVLRQV

7KH WD[SD\HU LQ WKLV PDWWHU DUJXHG IRU FUHGLWV
VLWXDWLRQ E\ UHIHUEH \$ \$ SWR DL3/FDKH FDXWUDDLWHG±
ZKHWKHU LQGHSHQGHW FRQVLGHUDWLRQ IURP D ILQ
DFTXLVLWLRQ VXSSO% E\ WKH KDFUT XLUHUV JURXSLQJ H[
QRW *67 UHJLVWHUHQ D Q Q V&KDWK H FSDJLFW EDVLV RQ
FUHGLWU RUGDUD 6& ZKR DSSHUHG IRU WKH WD[SD\HU

« LV DQ H[FHSWLRQ WR WKH RYHUDUFKLQJ FRQF
QHXWUDOLW\@ ZKLFK LV WKDW QR µVWLFNLQJ¶
LQVWHDG WKH\ VKRXOG DOO EH DEOH WR UHFRY
LQFXU EXLOW LQWR WKH SULFH RI WKHLU DFTXL
WD[DEOH RU *67 IUHH ZLWK WKH EXUGHQ RQO\
FRQVXPHU

&RXQVHO H[SODLQHG LW LV RI WKH HVVHQFH LQ D 9\$
LQSXW WD[EDFN VR WKH\ UHPDLQ QHXWUDO LQ D ILVF
WKH RUWKRGR[(XURSHDQ SRVLWLRQ WKDW QHXWUDO

,5& Y (XURSD 2LO @ \$XGRSD 2LO 1⇒ /W@ Y :5\$WWR \$XVWUDOLD
3W\ /WG Y \$&& DW&LW\ /LQN 0HOERXUQH /Y&\$) &76DW > @
*HRUJH %DQN yWG@)&\$ DW > @ :\$OVSFOHTXB WRRHLD O ORYH
IOLUWLQJ ZLWK HFRQRPLF; H* XZ YDQGH QFGLUHFV 7D[&RQIHUHQFH S
&RUGDUD\$XVWUDOLDQ *RRGV DQG 6HUFLHV 7D[DW VHV ± 'BFLVLI
+- *ODZH 6SLHO XQG 8QWHUKDOWXQJVJHUDWH>Y)L@ BQ]DPW +DPEX
DW > @ TXRWHG
\$;\$ \$VLD 3DFLILF +RGLQ@V)&WG Y)&7
FI *675 D)WQDQDPW *UR% *HUDX Y 0. * .UDIWDK@]HXJH)D
(8(&- & +DJHPH\HU ,UHODQG /WG SOF>Y 5@YHQX &RPPLVLRQHU
VV F DQR\DPD \$W\ /WG Y /DQGPUN %XLOGL@J16H&HORSFH
DW yL @RUHQ]R &HUDPLFV 3W@ /W\$ Y)&DW > @
*675 DW 5RQS@ERQ 7LQ 1/ Y)&&7/5 DW3 0HUFQWLOH 3W\
/WG Y y&7 @)&\$)& DW > @

9\$7† /LQGJUHQ - DW > @ TXRWHG WKH #DHJLVOD
0HUFDQEWLVOKH GLG QRW PHQWLRQ QHXWUDOLW\ E\ QD
WKDW KH VDZ μQR UHDVRQ WR LPSRUW DV DXWKRULY
DSSURDFKHV WKDW ZHUH WDNHQ LQ FDVHV FRQFHUQL

7KLV EHFDPH DQ HYHU VWURQJHU WKHPH LQ WKH GHY
DOVR SURYLGHV D FRJHQW EDVLV DOPRVW RQ LWV F
\$XVWUDOLD ,Q \$;\$VLDU3DFOGRFZHQJ- H[SDQGHG RQ W
OHJLVODWLRQ GLIIHUHQW FRQWFKW†7D[K6SHFQQDQW
\$;\$ \$VLD 3DVLHOF WKH MXGJH DOVR KHOG DW > @ V
'LY ZDV LQFRQVLVWHQWKZVSRWLWLRQ7ZDZDOVR WR
LQ ODWHU FD\$;\$V\$DQY3DVLVON QHXWUDOLW\ /LQGJUH
WKH LVVXH DQG VWXFN WR WKH SURYLVLRQV

*(OHFWULFDO *RRGV ,PSRUWHU*

(FRQRPLF SROLF\ DQG FRQVXPSWLRQ

7KLV WULEXQDO FDVHGHEDQGHZVKSUWGDGRZQ LQ W
&RXUW LV WKH PRVW WDUJHWHG DQDO\VLV RI WKH V
GDWH

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

ZKLOH 8. FRXUWV GR SUHFLVFN\YWHK SJRYDUDVHW +DPE
WKH &-(8 VXPPDULVHG LWV JHQHUDO DSSURDFK WR LG

« LQ LQWHUSUHWLQJ D SURYLVLRQ RI WKH « ODZ
LWV ZRUGLQJ EXW DOVR WKH FRQWH[W LQ ZKLFK
RI ZKLFK LW LV SDUW

7KLV VWDWHPHQW FRQFHDOV PRUH WKDQ LW UHYHDO
0HUFNWDWHPHQW LV ODUJHO\ DQ XQGHUVWDWHPHQW
QHFNVDU\ WR FRQVLGHU WKH VSLULW WKH JHQHUDO
7KLV WKHPH WUDFHV EDFN WR WKH YHU\ HDUOLHVW &

*XQQDU %HFN VWDWHV WKDW WKH ZRUN RI WKH &-(8
SODFHG DW DWK\H\Q\WRH\WKH MXGLFLDO VSHFWUXP \$
LQ WHUPV RI WKH &-(8 EHLQJ μSRWHQWLDOO\ D GDQ
LQKHUHQW LQ XQFRQWUR\OH\H\H\VM DGLFICROJ SRYZH UD
OLWHUDWXUH LQ WKLV DUHD KRZHY\XPH\X\X\G\RX\J\G
DUWLFOHV PDQ\ RI ZKLFK DUH LQ (QJOLVK DQG SHU

%HFN\ V FRQF\SL\LR\H\Q\W\K\RN ± μ/DZ IRU WKH &-(8
FRQLQXDWLRQ RI SROL\RW\HY\B\UR\K\H\J\PH\H\Q\V\J\W\K\W
OLFKDO %REHN FKDOOHQJHV LW RQ WKH HYLGHQFH LQ
%HFN VDLG DV μELWW\H\H\H\G\FR\Q\G\H\G\G\R\Z\J\ RQ KLV HI
ODWHU /DZ\DLF\WKH &RQLQXDWLRQ R\H\3\R\O\O\X\VE\R\O\
WKDW UHJDUG LV W\K\O\W\K\G\RW\G\J\PR\G\W\O\O\U\O\H\J\O

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

WKHP VWDQG LQ WKH ZD\ RI WKH IXOILOPHQW RI ZKD
SROLWLFDO RU HFRQRPLI SODQW IXUWKHU

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

PD\ VXSSR UH DLO UHDOLVP SUHYDLOV 700 H 0 GLQ M XWD
FRQWUDVW WR WKH WUDGLWLRQDO μERWWRP XS↑ PH
PDNLQJ LQ FRPPRQ ODZ FRXQWULHV

%HQQLRQ FRORXUIXOO\ VXPPHG XS WKH SRVLWLRQ E\
SXUSRVLVH FRQVWUXFWLRQ HQDEOHV WKH 0 0 H P L 0 0 D W
YHLQ LW KDV EHHQ VDLG WKDW WKH &-(8 μGHOLE
IXQGDPHQWDO SULQFLSOHV RI WKH \$ Q Z H W H L U Q R I P M Q W S
FDOOV EURDGO\ IRU LQWHUSUHWDWLYH UHVWUDLQW
EDVHG RQ SULQFLSOHV RI GHPRFUFD\ UXOH RI ODZ D

/HJLVODWLYH GUDIWLQJ

PXOWLOLQJXDOLVP RI MXGJPHQWV % SURWRFROV RI
RI MXGJPHQWV 5HJDUGLQJ \$)UHQFK EHLQJ WKH FR
RWKHU MXGJPHQW YHUVLRQV LQFOXGLQJ LQ (QJOLVK
μODZ\HU OLQJXLVWV¶ 2QH MXGJH QRWHV JHQHUDOO\
ODQJXDJH ZKLFK SXWV D SHQDOW\ RQ WKH IORULG DQ

,W LV REVHUYHG WKDW IRU GHFDGHV &-(8 MXGJPHQ
MXGJPHQWV RI WKH JUHTXW)XQJQWKRQR RUFV¶KUWV LG
DXWKRULWDWLYHO\ FRPPXQLFDWH D GHFLVLRQ UDWK
7KH)UHQFK OLQJXLVWLF GRPLQDWLRQ DOVR¶KH SLOOV
SRWHQWLDO IRU XQZLWWLQJ DQG VXEWOH FKDQJHV LG
EHHQ FDOOHG WKH μPLQHILHOG R\$Q&UIZVK¶PHVDDGGHGG
YHUVLRQV RI OHJLVODWLRQ KDYH HTXDO DXWKRULW\
RQ WKH ODQJXDJH RI WKH FDVH

,Q WKLV UHVSHFW WKH FRXUW ZLOO KDYH UHJDUG
VPRUJDVERUG RI VRXUFHV WR EH FRQVXG¶WHUJ¶DV QH
PRYHV KDYH EHHQ PDGH WR FKDQJH WKH ZRUMHQJ ODO
WKH ODWWHU ¶KH VDFHWFR¶PHUJ¶WKH HUB¶QFHJLVODWLYM ER
KDSSHQV LW ZLOO EH DQ LURQLF DQG 3\UUKLF RXWFR

5HJDUGLQJ % DQG & FRPPHQWV IURP ODTWKHV %HQ
&-(8 μHQJDJHV LQ PHWD WHOHRORJ\ E\ DVVHUWLRQ
DUJXPHQW¶KWDRQ¶ WHOHRORJLF DQ¶DSSURDFKLRQ¶HDFV
WHOHRORJLFDO RQH DSSURDFKHV WWH¶BRWKHUSZLHWLY
FRQWH¶KH &-(8 DOVR μRIWHQ DGRSWV D PDJLVWHULDO
ZKHUH D μODFN RI VXEVWDQWLYH RU GLDORJLFDO RU
IHDWXUH VD\V %HQF]H LV D μWHQGQHGF\ WR XQGHU D

,W LV WKLV DSSURDFK ZKLFK μKHOSV FRQFHDO GLV
MXVWLILFDWLRQ LV XGG¶PHU¶G¶WYHIOQSRHGY¶H D μW\SLF

ODQFLQJLVVFXUUHQWV DQG WKH 7LGH DW WKLW¶XBRSDO &RXUWRS
/DZ DW
ODQFLQL /DQJXDJH &XOWXUH DQG 3ROLWLFV LQ WKH /LIH RI W
&ROXPELD -RXUQDO RI (XWRSHDQ /DZ
%RE(SNORU¶H%REHNOHIGWLQJ (XURSH¶V -XGJHV \$ &ULWLFDO 5H
3URFHGXUHV WR WKH WXURSHDQ &RXUWV
FI 3R¶W¶W¶HUVH RI μ(XULVK¶LQ %UXVHOV FZQIXV¶VGRQQR XN EO
HXULVK EUXVVHOV FRQIXVHV PDQ\
,GRPSHOP¶DQ H[DPSON WKH ODQJXDJH RI WKH FDVH ZDV 'XWFK
'HU¶X¶OWLOLQJXDQ ,QWHUSUHWLWLRQ RI &-(8 XUDRSHDQ /DZ OH
5HYLHZ DW F(IXGSRNDQ¶RXUW RI -XVWLFH /HWDO 5HDVRLQJ L
\$UQ¶X¶H:RUNLQJ /DQJXDJH RI WKH &-(8 ¶X¶PSHROQD/¶X¶G¶YH¶H
DW
%D¶H¶LNDQ ,QWHJUDWLRQ DQ¶G¶W/DQJXDJH 'LYHUVLW\
%HQ¶FR¶E WR OHDVXUH WKH 4XDOLDWV RI -XGLFLDO 5HDVRLQJ
F&(¶ Y 7KRUQ ODPWHULDO¶ 6XSSO¶(5WG DW
6DQ¶X¶WRSHDQ &RXUW RI -XVWLFH /HWDO 5HDVRLQJ LQ &RQH[¶V
3ODXPDQQ Y &RPP¶V&¶L¶RQ H[¶HPSOLILHV

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

/HJUDQJ+LV VROXWLRQV WR SUREOHPV ZHUH LQYDU

LV GHOLYHUHG¶ 'LUHFWLYHV DUH QRW VRPH µVDFUH
ZKHUH HFRQRPLFV LV VHHQ PRVW200HS@URFDW\HX00H
DSSHUV WR KDYH DFFHSWHG WKDW WKH &-(8 KDG EH

7KH &-(8 :DWVRQ *DUFLD JR RQ µFOHDUO\ UHFRJQL
9\$7 'LUHFWLYHV DUH VXEYHUYLHQW WR WKH FRQFHS
(OLGD *WEEK\ VD\ WKDW WKH &-(8 µURGH URXJKVCRG
GHWDLOHG SURYLVLQRV RI WKH 6L[WK 'LUHFWLYH FR
:DWVRQ *DUFLD VD\ ± µ:KHUH WKH GHWDLOHG SURYL
WKH HFRQRPLFV RU GR QRW IROORZ WKH SULQFLSOHV
FRUHFHWG E\ WKH &-(8 @PDEHO DOUWDLQ @WKH XDLRQ ±
DXWKRUV VD\ WKDW µLW ZRXOG EH QRWKLQJ QHZ IRU
WKH 'LUHFWLYH LQ RUGHU WR DFKLHYH D UDWLRQDO

7KHVH FRPPHQWV FRQWLQXH D VWHDG\ WKHPH DERXW
,Q D VHQVH WKDW FRXUW µWUDQVODWHV¶ EDFNJURXQ
LV H[SHFWHG WR 3HUKDSV WKLW ZDV WKH LGHD +LO
FRPPXQLTXp RQ *67 IPDWHU\SUHW\ RU WUDQVODWH"

(8523(\$1 /\$: ,% ,7\$,1

(8 ODZ SUHYDLOV

%ULWDLQ OHJLVODWHG IRU D YDOXH UFGDHO@WDM\KQ
LOO 6DWHG WLYH (PS@RRPHQWRUD[HLO :DHVHQXHLQDZQ
-RXUQD@LFOH VHWV RXW WKH KLVWRULBD@REXDFWUR
LQ WKHLU DSSOLFDWLRQ RI (XURSHDQ ODZ LQFOXGLQ
WKH SUDFWLFH RI WKH K(LXURSHDQ@URXFW\@RKS\FRQ H F
&RPPXQLWLHV@FVWDWXWH ZKLFK LV WR EH UHSHDOHG

,Q KRUG)OHWFKHVH@HEVXUH /RUG 'HQQLQJ VDLG WKD
&RPPXQLW\ ODZ LV FRPLQJ LQ IDVW¶ DGGLQJ WKDW L
VR PXFK VR WKDW ZH KDYH WR OHDUQ WR EH DPSKLE
ZDWHU@DWHU 'HQQLQJ UH H[SHVVHG WKLV QRWLRQ L

,QWHUFRPPXQDOH YRRU =HHZDVHUR@ &LVH@CFJMHQWOD L'YFWKHL@V
,PPRELOLHQDQ@D@H@ - &

%RE@KNI /HJDO 5HDVRLQJ RI WKH &RX@XURSHDQ@QW@DFZH5H@DWHKZH (8

FI &UDLJ (8%@ZFTH[W &DVHV DQ@GDS@SW@MULD@HQ 3" '9,@ p pW>QG P(
:DWVRQ %DUE@BQLDQ &RQXVLRQ)ROORZLQJ (&-¶V '@FLVLRQ

,QWHUQDWLRQDO @S7 @RQLWRU
:DUU@K@ 8. ([SHULHQFH Z@WYKH@S@VH /@Z@XRXU@D@^UH F@f(XB@€@UR

)LVFDO WKHPH SDUN

7KH (QJOLVK MXGJH 6HGOH\ /- RQFH FRPPHQWHG FRO
ZRUOG¶ OLHV WKH ZRUOG RI 9\$7 D µNLQG RI ILVFDO
UHDOLWLHV DUH VXVSKIQG 66 VFWLSW HRQ HFDI GH QHDU
LV VWLOO EHLQJ UHSHDWHG 6 HLGOWKH)DUWW 7@ HIG FVLEU
WKURXJK D µKHUPHQHXWLF WXUQVWLOH¶ LQWR µWKL
XQFRPSOLFDFWHG VROXWLRQV DUH D VQDUH DQG D G
µP\ VWLF WZLOLJKW RI/ 9\$7 G F6SHV OFDNDLOR Q¶ RXW WKH µ
EHOLHYH ZRUOG RI 9\$7¶ ZKHUH WKH VWDWXWRU\ VFKH
DQG WKH JXLGLQJ SULQFLSOH LV QHXWUDOLW\¶

\$V 5RGHULFN &RUGDUD KDV H[SODLQHG WKHVH YDU
H[SUHV V KH VD\ V JHQXLQH GLIILFXOWLHV µLQ FRPLQ
XQIDPLOLDU V\ VWHP RI HFRQRPLF SROLFLHV DQG KD
DQDO\ V, Q¶ LV YLHZ 9\$7 µLV D PRUH SROLWLFDO WD[W
DQ DYRZHGO\ HFRQRPLF DQGSROD WLFDOU VJHQG¶ WKH
GHVFULEHG DV EHLQJ LQ DQ µXQHQYLDEOH SRVLWLRQ

:KLOH WHFKQLFDO ODZV OLNH 9\$7 PD\ QRW DWWUDFW
PDWWHUV WKH FRPPHQW DERYH GR VXJJHVW WKH
WHOHRORJLFDO LQWHUSUHWDLRQ LV DSW WR FUHD
-RKQ \$YHU\ -RQH V IRU H[DP SOH SURYLGHV D VRPHZK

%UH[LW DQG WKH ODZ

,W LV QRW LQ GLVXWH WKDW WKH LQIOXHQFH RI WK
GHYHORSPHQW RI WKH ODZ WKHUH KDV EHHQ SURIRX
H[SRVXUH WR QHZ ZD\ V LQFOXGLQJ WHOHRORJLFDO L
H[FKDQJH RI LGHDV ZKLFK KDV EHHQ GHVFULEHG DV D
RU WKH GRZQORDGLQJ DQG XSORDGLQJ RI OHJDO SUL

6XEMXJDWLRQ RI 8. ODZ WR WKH (XURSHDQ WHOHRV
IURP WKH VWDUW LQ WKH %UH[LW GHEDWH XQGHU WK
/RUG &KDQFHORU HYHQ FDOOHG WKH &-(8 D µURJXH
\$YRQ LQ &RXUVV LQ (XURSH DQG %ULWDLQ DJUHH KR

5R\DO 6XQ \$OOLDQFH ,QVXUDQFH 67URXS 55W1Y @(& FI 3W\
/WG Y }&7 @ \$\$7\$ DW > @ µILVFDO DOFKHP¶¶
9LUJLQ OHGLD>/WG@Y8&)58 DW > @ IRU H[DP SOH
&DUG 3URWHFWLRQ 3@DQ&Y &(&DQDFURI% HDFK &DUDYDQ 6DOH
> @ (:+& DWURP@ .DQH .DQH Y & U\R\ DA @ G6rD °6WH3 GYF&5& H1

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

EHHQ FRPSURPLVHG E\ (8 PHPEHUVKLS

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

)LQDOO\ LQ D 9\$7 FDVH GHFLGHG HDUO\ LQ LW
EHIRUH WKH 6XSUHPH &RXUW WKDW DW WKDW VWDJH
LQYROYLQJ XQFOHDU LVVXH RI (XURSHDQ ODZ PXVW
7KDW UHIHUUDO ZDV GXO\ PDGH E\ WKH 6XSUHPH &RX

(8 1(875\$/7< &\$6(6

7KHUH LV D VHHPLQJO\ HQGOHVV PDWULRPSIHODVH D

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

WKH 9\$7 IRU ZKLFK WSKHWDFOH OLLWPHWUDEV LWKDW W

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

*(OLGD *LEEV /WG*

'RPLQDQFH RI QHXWUDOLW\

,Q WKLV μPRQH\ RI (IOEBSRUEF&V(B H[SODLQHG WKDV

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

LPSRUW 9\$7 VLPSO\ EHFDXVH WKH OLDELWLW\ DULVHV
%HUQHU - VDLG WKH SRVLWLRQ ZDV FOHDU DQG UHIX\

ODUNV 6SHQFHU SOF

(FRQRPLF DQDO\VLV HTXDO WUHDWPHQW

7KH RSLQLRQ RI \$GYRFDWH *HQHUDO .RNDWMLQ WKH
6SHQFHU SOF

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

*HUPDQ\ ZLWK PRXOGV IRU WKH PDQXIDFWXUH RI OLJ
FKDUJHG XQWLO +HOOD GHWHFWHG WKH PLVWDNH \$I
GHGXFW LQSXW WD[RQ WKH VXSSOLHV EXW WKDW UL
7KH &-(8 DW > @ PDGH IDPLOLDU UHPDUNV DERXW
EXW QRWHG WKDW WKH ULJKW WR GHGXFW LV μVXEM
IRUPDO UHTXLUHPHQW WKH FURXUW GLDGLBQUH HDG\ KHOG DO
PD\ YDOLGO\ WDNH DZD\ WKH ULJKW WR GHGXFW ZKH

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

V\VWHP DQG H[HUFLVDEOH LPPHGLDWHO\ WR UHPRYH
\$OWKRXXJK LQYRLFHV DUH D μWLFNHW RWDPULDWLRQ¶
PLQRU HUURUV LV UHTXLUHG WR HQVXUH WKDW QHXW
/XF 9DGDQ ZHQW D VWHS WRR IDU WKLV WLPH +LV LQ
LPSRVVLEOH RU RYHUO\ GLIILFXOW WR DVFHUWDLQ
HQWLWOHPHQW WR D GHGXFWRQ KDG EHHQ PHW¶ 7
PHDQW WKDW 9DGDQ¶V QRQ FRPSOLDQFH ZDV LWVHOI
HYLGHQFH VXSSRUWLQJ HQWV KDW W B QG V G F W

,I LW LV WKH IRUPHU ZH VKRXOG DSSO\ WKH SULQFLS
DQG LJQRUH HYHU\WKLQJ ZKLFK KDV KDSSHQHG LQ WK
ODWWHU GR ZH WDNH 0U 5RPSHOPDQ DV ZH IRXQG KL
ZLWK DOO KLV QHZ FORWKHV DQG SRVVHVVLQRQV LQV
VSHDNLQJ 0U 5RPSHOPDQ LQ WKH VHQVH WKDW DOO
IURP LQIRUPV WKH SULQFLSOH DV ZH DUH WR DSS

7KHUH LV QR SUHFHGHQW IRU WKLV DQG QR UHFG\ DQ
,I ZH JR ZLWK VWDWLF 0U 5RPSHOPDQ ZH VKRXOG L
LQFOXGLQJ IRU WKLQJ LKWKHUV GLVFXVVHG LQ WKLV Q
5RPSHOPDQ ZH KDYH ZHOFPHG KRZHYHU HDFK WLP
QHXWUDOLW\ FDVH WKHUH LV D SRWHQWLDO LPSDFV
FRPSDUDEOH VLWXDWLRQV 1RQH RI WKHVH VSHFXODV

/DZ DQG HFRQRPLFV

7KH GULYHUV IRU (8 QHXWUDOLW\ EHLQJ SDUW RI RXU
DSSOLFDWLRQ RI SXUSRVLYH SULQFLSOHV ,Q WKLV
SKUDVH & J, QXUDQFH DV VRPH RSHQ OLFHQFH W
DV LI WKH\ FRQWDLQH FRQFHSWV GHULYHG IURP II
D GLIIHUHQW PDQQHU 7KH PDQGDWH IRU SUHIHUUL
QHXWUDOLW\ KRZHYHU LV VXJJHVVHG WR EH WKH μX
RI \$KWV ,QWHUSUHWDWLFQ \$XS SRUW IRU WKLV DSSUR
WKH MXGJPHQV PHUFDODGDER PPHQWV IURP WKH VDPH
DUWLFRH QWHUSUHWHHU & W (SDGMEDVLRQV HVEKQHQ DV
HPEOHPDWLF RI KRZ WKLQJV VKRXOG ZRUN RXW QHXW
IRU WKLV DUH EHVW SXW E\ 0LEKROO YLGGVRLQWKHVPLU

-XVWLFH 3DJRQH WRRN XS D VLPLODU WKHPH LQ D SD
HFRQRPLF FRQFHSMXGJH VDLG DW WKDW SXUSRVV
MXGJHV μWR JLYH HIIHFW WR XQGHUO\LQJ REMHFWLY
DQG WKDW μOHJLVODWLRQ GUDIWHG WR JLYH HIIHFW

7KH SUREOHP DV 3DJRQH - VDZ LW LW ZDV QRW ODFN
GR QRW KDYH WKH WUDLQLQJ EDFNJf1V EDFNJf V

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

LQWHUSUHWDLRQ SURWRFROV D GLIIHUHQW MXGLF
(FRQRPLF WUDLQLQJ PD\ DVVLVW RXU MXGJHV EXW V)
DQG H[SHUW HYLGHQFH PD\ EH JLYHQ ZKHUH DSSURSU

0DVRQ - JDYH KLV YLHZV RQ WKH JHQHUDO LVVXH
µ8QGHUVWDQGLQJ UDWLRQDO DQG VHQVLEOH WD[SRQ
IRU D VDFUHG EDQG RI ~~ERWGRFHFDVXDFRZURORWVLEIRX~~
FXOWXUH DQG VSHFLDOLVDWLRQ WKDW HH[6&WADGQ V
FRPPHQWV LQ D ~~\$PVDDOYHDOYDFDYLFRZ~~ LQWHUSUH

7KH PRUH LQFRQYHQQLHQW WUXWK LV WKDW IRU EHWW
RQ HQDFWHG WH[W ± ILUVW DQG ODVW DV WKH +LJK
D GLIIHUHQW DQVZHU RQ\ ZKHUH WKDW DQVZHU LV R
DQG WKH UHTXLUHPHQWV RI V \$\$ FDQ EH PDGH RXW

'LPHQVLRQV RI GLIIHUHQFH

7KH NH\ TXHVWLRQ SRVHG WKRXJK LV ZKHWKHU LW L
LV D 9\$7 V\WHP GHOLEHUDWHO\ FUHDWHG ZLWK D Z

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

9\$7 'LUHFWLYHV LQ GLIIHUHQW WHUPV DQG LQ D P
LQWHUSUHWDLRQ ZH DSSO\ 2WKHUV WDNH WKH YLH
-RKQ 'DYLVRQ DQG 5RGHULFN &RUGDUD REVHUYHG

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

μLW LV HTXDOO\ HUURQHRXV IRU SHUFHLYHG SROLF\
UHJDUG IRU WKH ZRUGV FKRVDHQ E\ 3DUOLDPHQW DQG

,Q KLV DUWL, QCHL DHERXW D\WKV HXVIDQGV BDDW OWKH \$72 D
μDWWHPSWV WR WKH H[WHQW SRVVLEOH WR WDNH D
SROLF\ EHKLQG W3KUDS WR WLRLRQV IURP WLPH WR WLP
&RPPLVLRQHU FDQ DQG PXVW DSSO\ SXUSRVHLYH SUL
FULWLFLVHG KRZHYHU E\ VRPH IRU EHLQJ WRR ERXQ
JRLQJ WRR IDU DQG DSSO\LQJ ZKDW LV FDOOHG D μSR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

« LV QRW LQWR WKH UHODWLRQVKLS EHWZHHQ W
EURDGO\ « 7KH WHUPV RI V D GR QRW G
SXUSRVH RI WKH HQWHUSULVH PDNLQJ WKH VXSS
7KH SURYLVLQR GRHV QRW WXUQ XSRQ D FKDU

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

3HUKDSV LW LV VLP SO\ YDOLGDWLRQ RI WKH SUHGLFW
EH D FRQYHUJHQFH RI H[SHULHQFH RQ WKH LQSW
SUREOHPV ZKLFK LQSXW DWDWDPDWHUHQHUVHEXW LW LV QR
H[SHULHQFH ZKLFK LV GULYLQJ WKH \$XVWUDOLDQ RXV

3ROLF\ SUHFRQFHSWLRQ

2QH LPSRUWDQW SRLQW PDGH E\ 'DYLHV - ZDV WK

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

OHJLVODWLRQ DQG SDUWLFXODU SURYLVLRQV DUH
FRPSURPLVH 7KH FRUUHFW HQTXLU\ KHUH LV QRW L
SURYLVLRQV JR LQ LWV LPSOHPHQWDWLRQ

0HQWLRQ PLJKW EH PDGH RI D FHUWDLQ KXEULV ZKLFK
:KDW LV EHLQJ UHIHUUHG WR LV WKH FRQILGHQFH RI V
WKDW WKH\ MXVW NQRZ ZKDW WKH ODZ ZDV LQWHQGH
3HUKDSV WKH\ ZHUH WKHUH DW WKH WLPH ,Q DQ\ HY
WKH VWDUW DQG ZLWKRXW DQDO\VLV ZKDW WKH μULJI

7KLV NLQG RI SROLF\ SUHFRQFHSWLRQ LV DW WKH PR

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

SULYDWH FRQVXPSWLRQ LQ \$XVWUDOLD 7KDW I
SXUSRVHV R&RQVRLWXMLRQ

6WHYHQ 6SDSXLWHUDOLQDQDQDWLFDYHJZUJXHVKHGHFL
2†0HDIUDZURQJZLWKWKHUHVXOWWKDYQKKM†LH†D.
WKH *67 LV QRW D WD[RQ FRQVXPSWLRQ DW DOO QR
WD[DWLRQ IRU V SXUSRVHV +H VD\V DW WKD
FRPSOHWHO\ LQGSHQGHQWO\ IURP WKH DFW RI SU
FRQVXPSWLRQ H[SHQGLWXUH† &RQVXPSWLRQ μLV QR†

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

7KH WKLUG LV WKDW MXVW DV FRQVXPSWLRQ SOD\

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

SUHVHQW FLUFXPVWDQFHV VLQFH WKH GHWDLOV RI W
WKR VH RI WKH HTXLYDOHQW OHJLVODWLRQ LQ WKH 8.

(GPRQGV - PDGH VL,VL ZDV SFLGR WKH DEVHQFH RI FR
SURLVLRQV ZKLFK OHDWKH HDW USRW WR LQ
RI D 9\$7 6B7HpWp 7KZWRBOM SRLQWHG RXW WKDW WR
&-(8 GHFLVLRQV LQ WKH IXWXUH ZDV @

H-RXUQDO RI 7D[5HVHDUFK

)LVFDO QHXWUDOLW\ IR

7KLV LV VRPH ~~WKLQD QZFKDRI~~ ~~SHU~~ ~~HW~~ WR HPSKDVLVH E\ R
FDQQRW VDQFWLRQ WKH GLVUHJDUG RI OHJDO DQDO\

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

,W ZDV RQFH VXJJHVWHG WKDW μSUDFWLFDQ EXVLQH
HTXLYDOHQFH¶ DUJXPHQWVLDQFIRKZCHYHWLDSSHUV
WR VODP WKH GRU DJDLQVW WKDW LGHD \$V \$QGUHZ
EH OIHYHQDWGDV VVXPHQDE EDEPLRPP QJR•FUZ
WKH JFRQFHSW RI WD[DWLRLQ E\ HFRQRPLF HTXLYDOH
\$XWUDOLDQ &RXUVV IRU LW WR EH UHYLYHG QRZ LQ

7,(%5(\$.(5 ,('\$6

&RPPRQ ODZ DQG VWDWXWH

,W ZDV VXJJHVWHG DEQRW\ LQ - KLPVHOI WKDW (8 QH
VRPH VRUW RI UHVROYLQJ SULQFLSOH ZKHUH DUJXPHQ
DJDLQVW FUHGLW DFFHV 7KH LGHD RI KDYLQJ XQOH
KRZHYHU LV DOUHDG\ EHKLQG XV 7ZR MXGLFLDO SU
VHPL SULYDWH EDWVOH RI VRUWV RYHU PDQ\ \HDUV D
WR WZR ZHOONQRZQ FDQRQV RI FRQVWUXFWLRQ 7KH
VWULFWO\ RU OLWHUDOO\ 7KH VHFRQG RQH LV WKD
UHYHQW\@HW μQRW LQGLYLGXDOV VXIIHU « WKH EHQ
WKH VXEMHFW¶ ZDQ FRPSHWKQ\ YLHZV RI .LUE\ - DQG
WKH IRUP-XVWDFKLWUDKDP +LOO 0HPRULDO 6SHHFK

%RWK FDQRQV ZLWK DOO WKHLU WQG VE pOFW\G DUH

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

+LOO - SHUKDSV D OLWWOH RXW RI FKDUDFWHU WR HQFRXUDJHPHQW WR7KQR SFSR PCHQDWLQJHQVLYH WR RI SDUOLDPHQWU\ FRXQVHO HYHU\ZKHUH KDV D GHHWD[OHJLVODWLRQ DV D VSHFLHV KDYH EHHQ FDOOHG WKH OHRSDUG 3RI WKH QDWXUH RI WKH EUXWH'¶

&KDUOHV '6ONHONVOROM EHG DOO OHJDO ODQJXDJH WR RI QRERG\ NQRZV ZKDW¶ /RUG 5HLG RQFH SRLQWHG WD[LQJ SURYLVLRQV VD\LQJ WKDW WKH\ μVWURQJO\ UHYLV\$OR¶PDO\ KRZHYHU QHHG QRW DOZD\V EH WKH

:H VKRXOG DFFHSW WKDW OHJLVODWLYH GUDIWLQJ LV WKH LGHD WKDW LPSHUIHFWLRQ DQ\ LPSHUIHFWLRQ GUDIWLQJ \$V +LODU\ 3HQIROG SRLQWV RXW μ\$XVW FRQVFLRXV SURGXFWV RI IDLUO\ ZHOOFK&FWIRUQRQH FDOOHG IRU D μGHJUHH RI HPSDWK\ LQ WKH KDUGHVW

,Q \$IORQJ WKH 5RDG DSH UD POLVFKXVHO '¶\$VFHQJR DJUHH WKH LVVXH DGGLQJ μWKDW LW LV XQOLNHO\ WKDW 3DWD[DEOH DFWLYLWLHV 3WR WKH GHWUkPHOW GDWKH J +LJK &RXUW DSSHUHG W\$S\$ZKHQ KHW PDDLVG HUKD W μWV QRW IRUP D FODV\$VRLQWRWIKUHRZOX¶TULVGLFWLRQV KRZH D OLQJHULQJ QRVWDOJLD DQG IRQGQHVV IRU WKH RO WKH 6WDWH VSKHUH WKDW WKH UHPQDQWV:KHQOLWHU SDUOLDPHQW OHJLVODWHG IRU V \$\$ RUGLQDU\ ZLVC RI WKH ROG FDQRQV WR WKH H[WHQW RI LQFRQVLVWH

,Q SUDFWLFH V \$\$ KDV QRW JHQHUDOO\ EHHQ VHHQ RI LQWHUSUHWDWLRQ ,QVWHDG DQ XQDQDO\HG FR WKH OHDUQLQJ RQ HDFK FDWHJR\WKD\$UREDEW DQ XFRG

+LGO-XGLFLDO 3HUVSHFWLYH R\$XVWUDZBHQZPZD-WXUQDDI +LOO -+RZ LV 7D[WR EH 8QGHUVWRKH ED&B\$HFLMDQ/LVW 6RPHOO -7KRXXJKWV RQ WKH 3ULQFLSOHV \$\$SOLFDEOHRWRQWDRHQJQ\$KHVUSUDHOV 7D[DWLFDQ:\$ 7UXVWHH ([HFWRU \$JH\$FA &R /WY)&7 0DFSKHUVRQ Y +D\$@ DW 6WHQKRXXVH +R-OGLQJ\$&Y ,5&DW 3HQIHOQVODWLYH 'UDIWLQJ DQGLGWBRWXGMPDWHXGQ RWHU SQW MUDSULH 3ULQFLSOHV DQG 3UDJPDWLP IRU D 1HZ \$JH)UHQRKWXWRU\ ,QWHUSUHWDWLRKGLVLRQ@LVLDIOMD WAD-XRFXKR\$ 1 DGGU\$W '¶\$VFHQJRQJ WKH 5RDG WR 'DPDVFXV \$ IUDPHZR-ENURDQ CRWHUS \$XVWUDOLDQ 7D[WDLRQ&YI0F*XENLDO \$OO (5 DW \$OFDQ 17 \$OXPLQD 3W\ /WG Y &RPPLVV@R-Q\$U RIDWUUL@WRU\$ 9H ,QWHUSUHWDWLRQ RI6QLVXQKWDZ\$W\$H\$Z ,QYHVWPHQWV /WG Y '7& DW5 Y *R-GHQ@ 6&5 DW %6+ +ROGLQJV 3W\ /WQ@&65 D&KDUOQHV FOR\G 3URSHUW\ *URXS 3 \$75 DQVWHUFRUS 3W\ /WG:\$6\$65 DPHV @>&65@ :\$6\$7 DW > @ 3ODLQWLII 6 Y 0LQLVWHU IRU ,PP@JUDSWLRQSDQDQ LWFUJ\$OXFLD 3W\ /WG Y &RPPLVLRQHURHU>RI @HU&\$SWRUDWHYH@XH\$MDW\$KHVRU'HG G ,QWHUSUHWDWLRQ LQ \$QVWUDOLD *HG\$KX\$SRVH DQG &RQWH[W LQ LGW DRWXVLRWVXGWRHU S,QHWHU\$SULH

H-RXUQDO RI 7D[5HVHDFK

)LVFDO QHXWUDOLW\ IR

%XW LV RXU *67 ODZ UHDOO\ PFK GLIIHUHQW IURP DG
WKH HJUDWLRQI\$FWH[DPSOH" \$JDLQ WKH DUJXPHQW KHU
WKH VW\OH RI RXU OHJLVODWLYH GUDIWLQJ UDWKHU

:KDW HPHUJHV LQ LV D SLFWXUH LQ PRVDLF IRUP
WKH *67 VWDWXWH VHW DJDLQVW WKH EDFNGURS RI W
D μOHJLVODWLYH IUDPHZRUN IRU *67 DGPLQLVWUDWL
TXLOW ORRVHO\ NQLWWHG WRJHWKH 6RPAHD\GLPLQLVWUDWL
SULQFLSOHV¶ RI WKH NLQG IODJJHG DW WKH WHQ \HD

\$V WKH \HDUV SDVV WKH ZLGHU PRVDLF VKRXOG
μDFFXPXODWLRQ RI H[SHULHQFH¶ SURYLGHG E\ GHFLG
WHVWLQJ 7KLV ZLOO EH GULYHQ E\ SURWRFROV RI
G\QDPLWKRXXJK QRW LQ WKH VDPH ZD\ DV LQ WKH (8 D
0U 5RPSHOPDQ WR RXU VKRUHV :H DQG KH DUH SDVV

:KLOH WKH LGHD RI D IXOO\ KDUPRQLVHG LQWHUQDW
μWKHRUHWLFDQ\ GHVLUDEOH REMHFWLYH¶ WKHUH L
QRZ OHJLVODWH WR DGRSW (8 VW\OH QHXWUDOLW\ Z
DIWHU WKH HYHQW REMHFWV FODXVH 7R GR VR ZRXO

0XFK RI WKLV QRWH LV DERXW VWDWXW H VPPHPE @ R