

Understanding Views on Sentience and Conservation: A Study of Emotional Experiences with Wildlife

Authors

Cppc'Tgkm{.'Cpplg'N{pej . 'Mcvk'Tlej ctf u.'P gm'F qwi ru. cpf 'Nk{ 'Lghgt {

Gpxkqpo gpvcn'Uwf kgu'Rtqi tco . 'Dquvp'Eqmgi g.'Dquvp. O C.'24689.'WUC

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Igppkgt'Tgdgeec'Uej cwt.'649'O eI wkpp.'F gr ctvo gpvqh'Uqekmqi {.'Dquvp'Eqmgi g.'Dquvp. O C'24689=[ngm{ clhB deQf w](#)

Authors' Contributions

CT.'CN.'MT.'P F.'cpf 'NL'f guki pgf 'vj g'r tqlgev'cpf 'eq/y tqvg vj g'o cpwuetkr 0

Running Title

Xlgy u'qp'Ugpkpeg'cpf 'Eqpugtxcvqp

Keywords

Ugpkpeg="eqpugtxcvqp="dkqf kxgtuk{ =y kf rkg="eqgz kvgpeg

Word Count

; 54:

Article Impact Statement

Vj ku'r cr gt'kf gpvkhgu'cpf 'o gcuwtgu'oj wo cp'r gtegr vqpu qh'cpko cn'ugpkpeg.ö'kpvkpi "cp go qvqpcn'cr r tqcej "v'ghgevkpu'qp'y kf rkg'kvgtcevkpu. eqpugtxcvqp."cpf "dkqf kxgtuk{0

Acknowledgements

Vj g'tgugtej gtu'y qwf 'hng'v'vj cpn'Rtqhguqt'Igppkgt Uej cwt.'vj g'Gpxkqpo gpvcn'Uwf kgu r tqi tco . 'Rtqhguqt'Vcte'RkucpkI ctgcw.'qwt'hgmjy Ugpkqt'Tgugtej "Ugo kpc't'encuo cvgu."cpf "qwt r ctvkr cpw'hqt'vj gk'eqvtdwkqpu'v'qwt'uwf {0

Introduction

Vj g'tgrvkvpuj kr "dgy ggp"j wo cpu'cpf 'pqp/j wo cp'cpko cnu j cu'gxqmgf "vj tqwi j qw"j kvqt {
cpf "xctkgu'dgy ggp"ewmwgu."eqo o wpkkgu."cpf "kpf kxf wcn0Ur gekhccm{."j qy 'r gqr ng'xkgy "cpf
xcnwg'pqp/j wo cp'ugpvkpeg'j cu'dggp'c'vqr ke'qh'tgugctej co qpi 'uej qrtu0Lcpg'I qqf cm'y cu'qpg
qh'y g'htuv'gzzr gtu'vq'f kuo cpvng'y g'r qr wct'eqpegr vqh'y g'f lej qvqo { "dgy ggp"j wo cpu'cpf
cpko cnu'd { 'r tqxkpi "vj cv'vqnr/wug."ewmwg."cpf "go qvkvpcneqppgekvq"ctg'pqv'wpls wg'vq
j qo qucr kgpu0Uj g'lw i guvgf "vj cv'y qug'y j q"j cxg'ur gpveqpukf gtcdr'vko g'y kj "cpko cnu'tgeqi pk g
vj cv'qwt'pqp/j wo cp'eqo r cpkqpu'cpf "y kf rkhg'r quuguu ugpvkpeg0Uj g'ct vkwrcvgf "vj cv'vqpeg" { qw
ctg'r tgr ctgf "vq'cf o k'y cv'cpko cnu'ctg'ugpvkpv'cpf ecppqv'qpn { 'hpqy "go qvkvpu'rkmg"j cr r kpguu.
ucf pguu."hgct."dw'gur gekcm { "vj g { "ecp'hggnr clp"o vj gp."cu"j wo cpu'y kj "cf xcpegf "tgcupkpi
r qy gtu."y g"j cxg"ctgur qpukdkkv { "vq'tgcv'y go 'kp o qtg"j wo cpg'y c { u'y cp'y g'vq'qh'vq'f qo"0Lcpg
I qqf cm'kpuvkwg."423; +0Dgecwug"j wo cpu'r r { "c'rti g tqrg'kp'pqp/j wo cp'cpko cnu'eqpugtxcvkv.
vj g'gzvqv'vq'y j lej "j wo cpu'wvf gtuwcpf "cpf "gzzr gtlkpeg ugpvkpeg"co qpi "pqp/j wo cp'dgkpi u'o c {
ko r cev'y g'hwmg'qh'eqpugtxcvkv'cpf "vj g'hwmg'qh'j wo cp/y kf rkhg'kvgtcevkvpu'cpf "eqgzkvpeg0
k'v'vq'v' { gctu."gzzr gtu"j cxg"ecmgf "hqt"y g'f kuo cpvki qh'tcf kvkvpcndkpcctkgu'dgy ggp"j qo q
ucr kgpu'cpf "pqp/j wo cp'cpko cnu" | f go k'lw i guu'y g dtgcm'y g'dkpc { "dgy ggp"j wo cpu'cpf
pqp/j wo cp'cpko cnu'cpf "dgy ggp"j wo cpu'cpf "pcwtg'y kj i qxgtcpeg'htco gy qtm'rkmg"oQpg
P cwtg0"Uvej "c'r ctf ki o "ecm'hqt"j wo cpu'vq"o qxg dg { qpf "cp'y tqr qegpv'le"y c { u'qh'y kpnkpi
cpf "qr gtcvki "y kj kp'y g'i nqcn'gequ { ugo 0Vj ku'dgi kpu y kj "tgeqi pk kpi "cpko cnu'ugpvkpeg
* | f go kt."4242"2

Problem

Cu'j wo cpu"eqvkwg"q"gpctqcej "w qp"pcwtcrif cdkcw.

ugpvkpv'dgkpi u'lp'qtf gt'vq'tgeqi pk g'qwt'eqo o qp'r meg'qp'Gctvj 0Y kj kp'vj ku'eqo o wpkv'ugvki .
y g'y cpv'q'hqvg't'o gcpki hwt'ghgevkpu'cdqw'j wo cp/cpk cnkpvgtcev'qpu'vj cv'y knkphwpeg
r ctvek cpw'qy p'nxgu'0k'qwt'ecm'hqt'y tkwgp'pcttcv'xgu. y g'ctg'j qr kpi 'vq'j cxg'cp'ko o gf kvg
ghgev'qp'dqj 'vj g'tgugtej gtu'cpf "'vj g'r ctvek cpw'0Dw'kf kpi 'qh'h'qh'Tlej ctf uqp'v'kf gcu.'vj g
tgugtej gtu'dgn'xg'vj cv'y g'y tkkpi 'r tqegu'y knkpk'cv'f kvexgt { 'hqt'vj g'r ctvek cpw.'kpv'kt g
eqppgev'qp'dgy ggp'j wo cp'r ctvek cpw'cpf 'ugpvkpv'k'g.'cu'y gml'cu'r tqf weg'o gcpki 'cpf 'etgcv
pgy 'cy ctg'gu'qh'tgcrk'v' 'kp'vj g'r tqegu'*Tlej ctf uqp. 4223-0Vj g'tgugtej gtu'cempqy ngf i g'vj cv
y tkkpi 'ecppqv'dg'w'v'k'p'v'f 'h'qo 'vj g'h'g'g'zr gtlgpegu qh'vj qug'y d

vq'cempqy rñfi g'cpf 'uj ctg'vj g'r gtuqpcnr gtur gevkgu'qh'cm'tgugctej gtu'kpxqkxgf . 'j g'gk0Gcej
cwj qt'dtkpi u'wpls w'g'zr gtlgpegu."gf wecvkqp."cpf "go qvqp vq'vj g'vcdmg0Uj ctkpi "vj gug'r gtur gevkgu
etgcvgu"o qtg'qr gp'cpf 'r gtuqpcnr'eqppgevkvq"dgwy ggp vj g'tgugctej gtu'cpf "vj g'tgcf gtu0k'vj gk
y qtm'Vtgxgu'cpf "eqmgci wgu'kpenmf g'c'ugevkvq'y j g'g vj g{'cempqy rñfi g'cpf 'uj ctg'vj gk'xct {kpi
qr kpkpu'cpf 'xky r qkpw'qp'vj g'vqr k'qh'r tgugtxcvkvq0Vj g'cwj qtu'uj ctg'vj cv'y j k'vj g{'cm'ctg
r cuukqpcvg'cdqw'vj g'uwdlgev'cpf 'ctg'eqpvtkdwkpi kvmgewcneqpv'v'q'vj g'ctveng."vj g{'ctg'pqv
cm'r gthgevf 'crki pgf 'k'vj gk'xky u'qh'pqp/j wo cp cpko cn'tki j u'Vtgxgu'gv'cr0"423; +0Uko krcn(.
y g'j qf 'xct {kpi "qr kpkpu'cpf "dgrkhu'qp'vj g'vqr k'qh'pqp/j wo cp'cpko cn'ugpvkpeg'cpf
eqpugtxcvkvq0Vj wu."Vtgxgu'cpf "eqmgci wgu'j cxg'kpur k'gf vj ku'ugevkvq."y j k'j 'y g'j cxg'ej qugp'vq
f gf kcv'v'q'vj g'r gtuqpcnr'pcttcvkgu'qh'vj g'tgugctej gtu0

Lghgt { "dgrkxgu'vj cv'f geqputwevki "vj g'f ggr n{/tqqvgf . j k'ctej kcn'tgrvkvpuj k' "dgwy ggp
j wo cpu'cpf "pqp/j wo cp'cpko cn'ku'guugpv'cr0Crko kpcvki vj gug'r tgeqpegkxgf "pqvkvpu'qh'j wo cp
uwr gkqtkv { 'cpf "rgcpki "kv'vj g'ugpvkpv'pcwtg'qh'cm'dgkpi u'y kn'cmqy "cm'ur gelgu'v'eqgzkv'qp
Gctvj "k'c'eqo r cuukqpcvg'o cpgt'cpf "tgf weg'vj g'ugxgtg j cdkcv'f kutw kvq'cpf "uwdugs wgpv
dkqf kxgtukv { "quu'y g'ewtgpv { "hceg0

F qwi rnu'cti wgu'vj cv'ugpvkpeg'ku'vj g'utqpi guv'eqppgevkvq uj ctgf "dgwy ggp"j wo cpu'cpf
pqp/j wo cp'cpko cn'="vj wu."k'ku'vj g'f w { "qh'j wo cpu vq'tgeqi pk' g'vj cv'uj ctgf "ugpvkpeg'ku'k'f k'gev
eqph'ev'y k'j "cpvj tqr qegpvtkuo . 'y j k'j 'j cu'f tkxgp'vj g'f gutwekvq'qh'pcwtcn'j cdkcw0Y j k'g
eqpegr wu'qh'ugpvkpeg'o c { "dg'vq'cdutcev'cpf "hqtgki p hqt'uo g'k'pf k'kf wcu'v'q'qr gpn { "go dtceg.
Tgkm { "ci tgguy k'j "F qwi rnu'vj cv'cwkwf gu'vqy ctf u j wo cp/cpko cn'tgrvkvpu'o wu'dg'tgeqpvk'gtgf
d { "vj g'eqo o qp'r qr wcvkvq'hqt'tgcn'eqpugtxcvkvq'vq qeew0Tgkm { "hgnu'vj cv'cpvj tqr qegpvtkuo "ku'uq
f ggr n { "kpi tckpgf "k'v'q'c { "u'qekvkgu'vj cv'k'pf k'kf wcu o c { "pggf "vko g'v'q'ceerko cv'v'q'vj g'uj k'kpi

r ctf ki o . "qt "gnug" yj g { "o c { "t glgev" yj gug" kf gcu" qwt ki j 0Vj wu. "T gkm { "hggm" yj cv" yj g" dguv" cr r tqcej "ku
vq" gcug" r gqr rg" kp" vq" yj gug" f kuewu kqpu. "gur gekm { kh" yj g { "ctg" vphco kktct" y kj " yj g" vqr leu0

N { pej "ku" eqo r gmgf "vq" f geqpust wevf qo kpcpv" ur gekgu ecvgi qtkgu" cpf " y qtmci clpuv" yj g
j wo cp" gzege vqpcrkuv" htco gy qtn0K" ur ktgf "d { " yj g" y qtmqh" Mktmug { "cpf " J gm tglej " *4232+ " N { pej
j qr gu" vq" dtkpi "kp" r gtur gevkgu" qh" gs wcrk { . "tgr nceki yj g" rpi wci g" qh" pqpj wo cp" ur gekgu" y kj
o wkur gekgu" wpf gtucpf kpi 0Cf f kkpccm { . "k" ku" ko r gtcvkg vq" cf xcpeg" qwt " Y guvtp" r wdrk
wvf gtucpf kpi "qh" cpko cniugpvkpeg" dg { qpf " wkrkctkcp xcncvkgp" qh" ur gekgu. "cpf " vqy ctf u" cp
wvf gtucpf kpi "qh" o wkur gekgu" cu" i qpf "vq" rkg" y kj . cpf "co qpi " *Mktmug { "cpf " J gm tglej . "4232+0

Tlej ctf u" dgrkgxgu" yj cv" yj g" dkpctkgu" yj cv" gzku" vgr ctcvki pqpj wo cp" cpko cni" htqo " j wo cpu
ctg" j cto hwnht" cm" ur gekgu0K" ku" kp" cm" ur gekgu dguv" kpvgt guv" yj cv" uwej "dkpctkgu" cpf " j kgtctej kgu" ctg
f kuo cpvrgf "dgecvug" cm" rkgu" j cxg" kpj gtgpv" xcng0Tlej ctf u" j qr gu" yj cv" gpi ci kpi "kp" etkccn" cpf
gptlej kpi "eqpxgtucvkgpu" cdqw" cpko cniugpvkpeg" ku cp" ko r qtcvpv" vgr "kp" dtgcnkpi "f qy p" yj gug
vtf kkpccn" dcttktu0

Trends in Existing Literature

Vj g" gzku" kpi "dqf { "qh" t" guctej "g" zr mt gu" yj g" tqrg" qh" xcng. "cvkwf gu. "cpf " f kt gev" kpvgtcevkgpu
qp" yj g" tgrcvkgpuj kr "dgy ggp" j wo cp" cpf " pqpj wo cp" etgcwtgu. ekk gp" o qpkqt kpi . "cpf
eqpugtxcvkgp" r tcevkgu0Vj gtg" ctg" c" xctkgy { "qh" t" gpf u gur gekm { "ucnkgpv" vq" hwwt g" t" guctej "qp" yj g
tqrg" qh" ugpvkgpeg" kp" o qkxcvkgpu" ht "dgwt" t" gcvo gpv" qh" y kf rkg0P wo gtqwu" uwf kgu" j ki j rki j v" yj g
ko r qtcpeg" qh" eqo r cuukap" kp" j wo cp" cvkwf gu" vqy ctf u y kf rkg. "tgr qt vki "go qkqpcn" xctkcdrgu" cu
yj g" utqpi guv" r tgf levqt" qh" y kf rkg" o cpci go gpv" qh" j qwug" ur cttqy u=cpf . " yj cv" j wo cp" go r cvj {
vqy ctf "cpko cni" cpf " utqpi gt" hggkpi u" cdqw" ugpvkgpeg o c { "rgcf "vq" dgwt" t" gcvo gpv" qh" cpko cni
*Nctup" gv" cr0"4238=Eqt pkuj "gv" cr0"423: +0Go r cvj gve tgcvo gpv" qh" cpko cni" gzvgpf u" vq

r gtur gevkg"FF qnd{. '4242+0F qnd{ au'go r j cuku'qp'go r cvj { 'kp'j gt'uwwf { 'cpf'j gt'wug'qh'eqmgi g
uwwf gpw'cu'r ctvkr cpw'ctg'vy q'vj kpi u'y gdf 'hkg vq'o kttqt'kp'qwt'uwwf {0Y cmcej 'cpf'eqmgi wgu
cti wg'hqt'vj g'ko r ngo gpvkvq'qh'eqo r cuukqpcvg'eqpugtxcvkvq. c'hqto 'qh'eqpugtxcvkvq'kp'y j lej 'cm
pqp/j wo cp'cpko cn'uwldgeu'ctg'tgcvgf 'cu'ugpvkpvdgkpi u'cpf'ctg'uggp'hqt'vj gkt'kptkpuke'xcnwg
*Y cmcej 'gv'cn0'423: +0Vj g'cwj qtu'uwwf kgf 'xctkqwu ecugu'qh'cpko cn'eqpugtxcvkvq'cpf'etkks wg'vj g
y c{u'vj g{ 'ki pqtg'cpko cn'ugpvkpeg'cpf'cev'y kj 'cp cpvj tqr qegpvlk'ugv'qh'i qcm'*Y cmcej 'gv'cn0
423: +0Y j kg'y g'y kn'pqv'dg'cpcn{ kpi 'ewttgpv'eqpugtxcvkvq ghqtu.'y g'y kn'dg'kpxguki cvkpi 'vj g
tgrcvkpuj k 'dgwy ggp'xkgy u'qp'pqp/j wo cp'cpko cn'ugpvkpeg cu'kvtgrcvgu'vq'cwkwf gu'vy ctf u
eqpugtxcvkvq00 cplhgf q'cpf'eqmgi wgu.'vj tqwi j 'vj gkt cpcn{ ulu'qh'uqekqewmwcn'xcnwgu'qp'y kf rkhg
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eqpugtxcvkvq'dgrgh0Qwt'uwwf { 'y kn'uggm'v'uko krcn{ cuuguu'j qy 'xkgy u'qp'y kf rkhg'ugpvkpeg
ko r cev'r gtegr kvpu'qh'y kf rkhg'eqpugtxcvkvq'vj tqwi j uvtkgu.'r j qvu.'cpf'qvj gt'uwej 'o gf kwo u0k
qwt'f cv'eqmgevqp'r gtlkf 'y g'cko 'v'hquvt'c'y cto cpf'ceegr vki 'gpxkqpo gpv'hqt'vj g
r ctvkr cpw'kp'qwt'f kuewukp'i tqwr 'y j gtg'vj g{ 'y kndg'kpxkgf 'v'twn{ 'gZR nqtg'vj gkt'vj qwi j u'cpf
hgkpi u'cdqw'cpko cn'ugpvkpeg0Uko krcn{ 'v'F qnd{. y g'y kn'gpeqwtci g'r ctvkr cpw'vq'r ww
vj go ugrkgu'kp'vj g'qvj gt'dgkpi au'r neg'cpf't{ 'v'kpvgr tgvcpf'tgegkg'vj gkt'gpgti { 'cpf'go qvkvpu0
Y g'y kn'r tqo r v'vj g'uwwf { 'r ctvkr cpw'vq'vj qwi j vwn{ tghgev'wr qp'vj gkt'kpvgtcevkvpu'y kj
pqpj wo cp'y kf rkhg'cpko cu0Y g'y cpv'vq'ecm'cwgpvkvq vq'vj g'vpls wg'gpgti gvk'dqpf 'vj cv'ku'uj ctgf
dgwy ggp'vy q'ugpvkpvdgkpi u0Y g'y kn'gpeqwtci g'qwt r ctvkr cpw'vq'dtkpi 'cp'gxgt'r tguvpv
cy ctgpguu'qh'eqpuekqwpugu'vj cv'cm'hkxkpi 'etgcwtgu r quuguu0Y g'j qr g'vj cv'vj ku'j gli j vpgf
cy ctgpguu'ecp'rgcf 'v'o qtg'o gcplki hwnf kuewukp. tghgevkvq.'cpf'eqpvkpwgf 'o wwm{ 'dgpghkcn

r ctvkr cpw'vj tqwi j "eqpxgplgpeg"uco r npi . "cu'vj g'tgugctej gtu'lwtxg{ gf "cwgpf ggu'vq"cp"cpko cn
y gntctg'u{o r qukwo "423: +0Kp'dqvj "uwf lgu."r ctvkr cpw j cf "ctgcf { "f go qputcvgf "c'uki pklcepv
kpvgtguv'lp"cpko cni'cpf "cpko cni'y gmlgkpi . "y j lej 'ko r cevgf tguwu"*Nctuqp"gv'cni"4238=Eqtpkuj "gv
cni"423: +0Qwt'uwf { "y km'dg'htqo "c'o qtg'o kzgf "dceni tqwvf qh'r gqr ng'y kj "xctkqu'kpvgtguu."pqv
lwv'ko kgf "vq'r gqr ng'y j q"ctgcf { "uj qy "ur gekni'kpvgtguv'lp"cpko cni

Areas for Further Study

Y j kg'vj g'rkgtcwtg"qp'y kf rkhg"eqxgtu'dqvj "c'tcpi g qh'uwvqr leu'cpf "eqpukf gtcdrf" f gr vj
kp'ur gekle"ctgcu."uki pklcepvi cr u'r gtukn0Ur geklecm{ . vj gtg'ku'o wej "vq'dg'uwf kgf "qp'vj g
r gtegr vkp"qh'cpko cni'ugpvkpeg'd{ "j wo cp'dgkpi u."j qy vj ku'ko r cevu'j wo cp/cpko cni'grvkpuj kr u.
cpf "y j cv'ghgevu'vj ku'j cu'qp"eqpugtxcvkp"ghqtu cpf "cy ctgpguu0Nctuqp"cpf "eqmgci wgu'cpcni'uku
qh'gzr gtlgp'kni'hcexqtu'uw r qt'u'vj g'dgrkh'vj cv'gzr gtlgpegu y kj "y kf rkhg'utgpi vj gp"chgevkxg"cpf
go qvkpcni'tgur qpugu'vq'y kf rkhg'uko wk"*Nctuqp."gv'cni"4238+0Vj ku'uwf { "qr gpu'wr "cp"ctgc'ht
tgugctej "qp'vj g'tqg'qh'wvf gtucpf kpi "cpf "cr r tgekvkq qh'ugpvkpeg'ht"vj g'htto cvkq"qh
go qvkpcni'f kur quk'kpu'cpf "cvkwf gu'vqy ctf "y kf rkhg0Vj g'y qtn'qh'Eqtpkuj "cpf "eqmgci wgu
ulo krcni' "etgcvgu'vj g'r qvgv'kni'ht'hw'vj gt'tgugctej qp'y j cv'gzcew' "o qv'xcvgu'r gqr ng'vq"eqppgev'vq
cpko cni'ugpvkpeg"*423: +0Y j kg'vj g'tgugctej gtu'gzco kpg f go qi tcr j le'hcexqtu'vj cv'kphwpeg

r t g x l q w u n { ' d g g p ' c w g o r v g f ' k p ' q v j g t ' t g u g c t e j 0 Y g ' y k m l r t q o r v ' j g ' u w f { ' r c t v l e k r c p w u ' v q
v j q w i j v h w m { ' t g h r g e v ' w r q p ' v j g k ' k p v g t c e v k a p u ' y k j p q p j w o c p ' y k f r k h g ' c p k o c n u 0 Y g ' y c p v ' v q ' e c m
c v g p v k a p ' v q ' v j g ' w p k s w g ' g p g t i g l e ' d a p f ' v j c v ' k u ' u j c t g f d g w y g g p ' y q ' u g p v k e p v ' d g k p i u 0 Y g ' y k m
g p e q w t c i g ' q w t ' r c t v l e k r c p w u ' v q ' d t k p i ' c p ' g x g t ' r t g u g p v c y c t g p g u u ' q h ' e q p u e k q w a p g u u ' v j c v ' c m l h k k p i
e t g c w t g u ' r q u u g u u 0 Y g ' j q r g ' v j c v ' v j k u ' j g k i j v g p g f ' c y c t g p g u u e c p ' r g c f ' v q ' o q t g ' o g c p k p i h w n
f k u e w u k a p . ' t g h r g e v k a p . ' c p f ' e q p v k p w g f ' o w w c m { ' d g p g h e k e n k p v g t c e v k a p u ' d g w y g g p ' q w t ' u w f {
r c t v l e k r c p w u ' c p f ' c p { ' p q p j w o c p ' y k f r k h g ' c p k o c n u ' v j g { o c { ' g p e q w p v g t 0

Research Question

Y j c v ' o q v k c v g u ' r c t v l e k r c p w u ' v q ' e q p p g e v ' v q ' c p k o c n u g p v k e p e g . c p f ' j q y ' e q w f ' v j k u
o q v k c v k a p ' r g c f ' v q ' d g w g t ' t g c w o g p v ' q h ' y k f r k h g ' A Y g j q r g ' v q ' c f f ' v q ' g z k u k p i ' h v g t c w t g ' d { ' h k k p i ' v j g
i c r u ' e q p e g t p k p i ' v j g ' g o q v k a p c n i k o r c e v ' q h ' y k f r k h g ' k p v g t c e v k a p c p f ' c e v k a p c d r g ' g h g e w ' v j k u ' j c u ' q p
j w o c p ' d g k p i u ' v q y c t f u ' e q p u g t x c v k a p ' c p f ' y k f r k h g ' j c d k c v r t q v g e v k a p 0 K g c m { . ' y g ' y k m k f g p v k h {
r c w g t p u ' c p f ' t g p f u ' k p ' y k f r k h g ' k p v g t c e v k a p u ' v j c v f g o q p u t c v g ' g h g e v k g ' y c { u ' v q ' g p e q w t c i g

qwt'r ctvlek cpwøqxgtcm'gzr gtlgpeg'y kj 'yj g'uwwf {0Dquxqp'Eqrngi g'uwwf gpw'ctg'wpls wg'lp'yj gk
cdkxv\ 'vq'tghgeev.'eqo o wplkcvg.'cpf "go r cvj k g'y kj qyj gtu0Cm'Dquxqp'Eqrngi g'uwwf gpw'ctg
tgs wktgf 'vq'eqo r rvg'yj g'Eqtg'Ewtkewwo 'y j lej 'hquvgtu etklecn'yj kpnkpi 'unkm'cpf 'yj g'cdkxv\ 'vq
eqo r cuikqpcvgn\ 'eqo o wplkcvg'kf gcu00 qtgqxtg.'yj g'Lguwkvxcnwgur tqo wni cvgf 'yj tqwi j qw
Dquxqp'Eqrngi g'r ræg'c'utqpi "go r j cuku"qp'ugtxleg vq"qyj gtu'cpf 'y qtnkpi 'vq'o cm

Data Collection Methods

Rctvlekr cpwu'y gtg'kpxkxgf "xlc"vzv."go ckn'y qtf/qh'o qwj . cpf "uqekcn'o gf kc"vq'r quv'y gk
y kf rkhg'kpvgtcevkpu"v'y'j g'Hcegdqmqni tqwr 0Rctvlekr cpwu y gtg'cungf "v'uj ctg'pcttcvxgu."r j qvqu.
xkf gqu."qt"cwf kq'kngu"cpf "r tqo r vgf "v'tghngev"qp vj g"go qvqpcn'gzr gtlgpegu"qh'y gk'y kf rkhg
kpvgtcevkpu0C"eqo o qp"dcttkgt "hqt"ekkl gp"uekpeg tgugetej "ku'uwxckpgf "gpi ci go gpv'cpf
eqo o ko gpv'qh'r ctvlekr cpwu"Rcrgeq'gv'cn0"4243+0Y g'clo "v'cf f tguu'vj ku'ej cmgpi g'd{ "qhhtkpi
o wnk r g'r tqlgv'gpt { "r qkpu"cu'y gm'cu'o wnk r g y c { u"vq'r ctvlekr cvg"cvf khtg gpv'hxgnu"qh
eqo o ko gpv'lp'y'j g'Hcegdqmqni tqwr "Rcrgeq'gv'cn0"4243+0Gzco r ngu"qh'r ctvlekr cvkqp"dg{ qpf
r qukpi "kpenmf g'kpvgtcevkpi "y kj "qyj gt'r quu'vj tqwi j rkgu"cpf "eqo o gpwu."y vcej kpi "rkxg'utgco
xkf gqu'j quvgf "d{ "y'j g'tgugctej gtu."cpf "tghgtkpi "qyj gt r ctvlekr cpwu"v'y'j g'i tqwr 0F cvc"eqmgevkap
dgi cp"qp"Qevqdg"36."4242"cpf "eqpenmf gf "qp"Cr tkn36. 42430

Data Analysis

Cp"guugpvkcn'r ctv'qh'qwt "f cvc"cpcn{ uku'o gj qf "ku"eq/etgcvkap. y j lej "cmqy u'qwt"uwf { "vq
dwnf "c"tlej "pcttcvxg"dgy ggp'y'j g'r ctvlekr cpwu"cpf vj g'tgugctej gtu"D3/plej /Dtgf plej ."423: +0
D3/plej /Dtgf plej "go r j cuk gu'vj cv'wpeqpxgpvqpcn'o gj qf u qh'pcttcvxg"gy pqi tcr j { "ctg'kp
vpuqkp'y kj "y'j g'pggf "hqt"gy pqi tcr j le'tgugctej "vq dg"cmgp"ugtkwun{ "cu"uqekcn'uekpeg
"D3/plej /Dtgf plej ."r 0; ."423: +0Y j kg" { gv"v'c"pcttcvxg dguv'ecr wtgu'vj g"go qvqpu"gzr tguugf "d{
r ctvlekr cpwu'tgi ctf kpi "y'j gk'y kf rkhg'kpvgtcevkpu. cpf "ku'o quv'twg"v'y'j g'pcwtg"qh'ugpvkpeg0
Hwtj gto qtg."qwt"o gj qf u'hqmgy "cp"kpwxkxg"cpcn{ uku cr r tqcej "cu"qr r qugf "vq"cpcn{ vceh'eqf kpi
qh'y'j g'f cvc0D3/plej /Dtgf plej "chko u'vj cv'y j kg"okv ku'vgo r vpi "vq"vwp'uvqtkgu'kpvq" f cvc"cpf
f gxcnwg'y'j g'cev'qh'f ggr "kuvgkpi "cpf "pcttcvxg"eqpvgo r rvkqp.ö vj g'r tqegu"qh'qtf gkpi "uvqtkgu
kpvq'pcttcvxgu"ku'dguv'i vkf gf "d{ "c"s wcrkcvkxg"cr r tqcej vj cv'f qgu'pqv'mug'y'j g"go qvqpu'lp'y'j g

r ctvkr cpvau'uvqtkgu'd{ 'f kuugevki 'vj go '*D3pkuj /Dtgf plej . 'r 032."423: +0Qwt"cpcn{ uku'go r j cuk gu
kpwkxg'y kuf qo u'y j kg'go r mq{ kpi 'tgugctej "eqpxgpvkp y j gp"cr r tqr tkcv0

Vj g'f cv'y cu'cuuguugf "wukpi "c'ugtkgu'qh's wrkcvkxg s wgunkqpu'vj cv'eqpukf gt'vj g'go qvkpu
cpf "ugpvkpeg"dgj kpf "vj g'uvdo kvgf 'r j qvqi tcr j u.'xkf gqu. cpf "cvf kq'tgeqtf kpi u0S wgunkqpu'vj cv
i vkf g'qwt "f cv'cpcn{ uku'kpenwf g<y j cv'v{ r g'qh'y kf cpko cn'ku'uj qy p'AY j cv'ku'vj g'eqpvz v'qh'vj g
r j qvq'AY j cv'f qgu'vj g'eqo r qukkqp'qh'vj g'r j qvqi tcr j uc{ "cdqw'vj g'tgrvkpuj k "dgwy ggp'vj g
r gtuqp"cpf "vj g'cpko cn'AY j cv'ecr vkpu'cpf "uvqtkgu'ctg kpenwf gf AY j cv'go qvkpu'f'vj g

O gfk'V{r g	
Rj qvq	39
Xlf gq	5
P qpg	3
Eqmgi g'Cwgpf gf	
Dquqp'Eqmgi g	35
Qvj gt	6

Trends

Trend 1: Key words about animal sentience

Dgecwug'uwwf lgu'kp'yj ku'ctgc'qh'tgugctej 'j cxg'kpxgunki cvgf j wo cp'cempqy ngf i go gpv'qh cpko cnl'ugpvkpeg.'c'ej qugp'yj go g'ht'cpcn'uku'y cu yj g'wug'qh'yj g'y qtf 'ugpvkpeg'qt'c'tgrvfg cempqy ngf i go gpv'qh'pqp/j wo cp'cpko cnl'go qvqp'y kj kp yj g'f'guetkdgf 'kpvgtcevqp0Hqwtvggp.'qt 85085' . 'qh'yj g'r ctvkr cpw'eqo o gpvfg 'qp'yj g'r gtegxgf go qvqpu'qh'yj g'cpko cnl'qt'cpko cni'yj g{ gpeqwpvgtgf 0Vj g'uwwf { 'y cu'cm quv'gpvkn' 'eqo r qugf qh'hgo cmg'j wo cp'r ctvkr cpw'yj kej 'o c{ eqttgrv'q'yj g'o clqtk' 'qh'r ctvkr cpw'o cnl'pi 'ugpvkpeg/tgrvfg eqo o gpw0Eqtpkuj 'cpf eqmgi wgu'hqwpf 'yj cv'hgo cmg'y gtg'o qtg'rkng' 'q' gpi ci g'go qvqpcn' 'y kj 'pqp/j wo cp'cpko cni *Eqtpkuj 'gv'cn0'423: +0J qy gxgt.'pq'r ctvkr cpw'gzr r'ekn' wugf 'yj g'y qtf 'ugpvkpeg'kp'yj gkt pcttcvkg0Vj gtghqtg.'eqo o gpw'qp'cpf 'tgrvfg 'q'r gtegxgf go qvqp'cpf 'ur kkwcnl'kpvgtur gelgu eqppgevqp'y gtg'eqpukf gtgf 'wpgt'yj g'yj go g'qh'ugpvkpeg0

Trend 2: Key words about human emotional experience

Vj tgg'qh'yj g'44'r ctvkr cpw'*35085' +y j q'ngw'pcttcvkg r quw'tgr qtvgf 'hggkpi 'go r cvj { hqt'cpqt#

j wo cp'lpvgtcevkqpu'y kj 'y kf rkhg'cpko cnu'cpf 'yj gk'j cdkcwoVj gtg'y gtg'ugxgtenr ctvlekr cpwu'y j q
kpf kecvgf 'yj cv'y g{ 'hgn'cr r tgj gpukxg'qt'hgcthwi'cdqww yj gk'lpvgtcevkqpu'y kj 'y kf 'cpko cnu'Vj tgg
r ctvlekr cpwu'qh'y g'44'vqcn'kpf kecvgf 'yj cv'y g{ 'hgn'pgtxqwu'qt'hgcthwi'ctqwpf 'cpko cnu'dw'y q'qh
yj g'y tgg'tgr qtvgf 'wko cvgn' 'j cxkpi 'r qukkxg'hgnkpi u cdqw'yj g'lpvgtcevkqpu0

Trend 3: Transformative effect of experience

Dgecwug'r tgxkqwu'uwf kgu'umi i guvgf 'yj cv'r gtuqpcn'gZR gtlgpegu y kj 'y kf rkhg'j cxg'yj g
r qy gt'vq'ej cpi g'j wo cpu'r gtur gevkgu'cpf 'cevkqpu'vqy ctf qyj gt'ur gekgu.'yj g'tgugctej gtu
kpxguki cvgf 'yj g'v'cpuhtqto cvkxg'pcwtg'qh'yj g'r ctvlekr cpwu) gZR gtlgpegu'*Nctuqpg'v'cn0'4238=
F qrd{ . '4242='Ueqw'v'cn0'4242-0'Qh'yj g'44'f guetkr vkg pcttcvkgu. ': 'r ctvlekr cpwu*5808' +
gZR rlekn{ 'f guetkdgf 'c'v'cpuhtqto cvkxg'ghgevtqo yj gk'gZR gtlgpeg'y kj 'y kf rkhg.'9'r ctvlekr cpwu
*530: ' +'kpenmf gf 'pq'tghgtgpeg'v'c'v'cpuhtqto cvkxg'ghgevtqo'v'gk'gZR gtlgpeg.'cpf 'yj g'tgo clkpi
9'r ctvlekr cpwu*530: ' +'kpenmf gf 'ko r rlekn'tghgtgpegu v'v'g'gZR gtlgpegu'eqpvtkdwkq'v'v'gk'pgy
r gtur gevkg0Ukz'qh'yj g'gki j v'v'cpuhtqto cvkxg'gZR gtlgpegu kpxqkxgf 'c'j wo cpw'lpvgtcevkq'p'y kj 'c
ur gekgu'yj g'r ctvlekr cpv'f qgu'pqv'ugg'qt'lpvgtcev'y kj qp'c'tgi wxt'dcuku0Cu'v'v'ku'tgugctej 'y cu
eqpf wevgf 'kp'yj g'o kf uv'qh'yj g'EQXKF/3; 'r cpf go ke.'vy q qh'yj g'gZR rlekn{ 'v'cpuhtqto cvkxg
gZR gtlgpegu'kpenmf g'tghgtgpegu'v'v'g'ko r qtvcpeg'qh'eqppgevkq'p'y kj 'qyj gt'ur gekgu'f wtkpi 'yj ku
r gtlqf 'qh'kuqrcvkq0'Hkxg'qh'yj g'gki j v'v'cpuhtqto cvkxg gZR gtlgpegu'kpenmf gf 'gZR rlekn'tghgtgpegu'v'v'
r gtuqpcn'cevkq'v'v'c'f'eqpugtxcvkq0Qpg'v'cpuhtqto cvkxg gZR gtlgpeg'j gir gf 'c'r ctvlekr cpv'hgn
r gtuqpcn' 'eqppgevgf 'v'v'kf rkhg0'Vj gtg'y cu'cp'qxgty j gm kpi v'gpf 'kp'r ctvlekr cpwu'gZR gtlgpegu
ecwulpi 'tghgevkq'qp'o wkur gekgu'eqgzkvgepg0'Qh'yj g'eqo dkgf '37'gZR rlekn{ 'cpf 'ko r rlekn{
v'cpuhtqto cvkxg'gZR gtlgpegu. ': 'kpenmf gf 'c'tghgevkq qp'eqgzkvgepg'cpf 'yj g'gh

Vj g'9'r ctvkr cpw'y j q'f kf "pqvtgr qtv'qp'vj g'tcpuhqto cvkxg'pcwtg'qh'vj gk'y kf rkg'g'zr gtlkpegu
uj qy gf 'hgy 'eqo o qpcrkkgu0"Vj g'ur gekgu'gpeqwpvgtgf cpf 'mcecvkqu'qh'vj gug'pcttcvkgu'y gtg
xctkgf 0Qpg'r ctvkr cpv'r qpf gtu'y j { 'c'upcr r kpi 'wtvrg tgvwtpu'v'vj gk' { ctf "qp'cp'cppwcn'dcuku0
ōJ gtgā'o { 'vj qwi j v'ō c { dg'uj g'ej qqugu'qwt'my p'dgecwug y g'j cxg'vj g'qpn' 'pcwtcn'ry p'kp'vj g
pgki j dqtj qqf #AP q'htvkr gt0P q'r guvkrf gu0P q'cp { vj kpi 0 Cpqvj gt'r ctvkr cpv'tgo ctngf "qp'c
ugcnu'cdkrk' { 'v'eqgzkv'y kj 'j wo cpu'kp'Nc' Lqmc<ō'Kuy co 'kp'vj g'y cvgt'cpf 'y cu'j qpgun'
uwr tkugf 'd { 'vj g'ugcnu'rcni'qh'j quvkrk' { 'cpf 'uggo kpi n' f lutgi ctf 'hqt'j wo cpu'uy ko o kpi 'kp'wej
enug'r tqzko kv.ō0"Vj g'r ctvkr cpw'ctg'cdng'v'cempqy ngf i g cpf 'tghge'v'qp'vj gk'g'zr gtlkpegu'y kj
qvj gt'ur gekgu.'dw'f q'pqvtgr qtv'cp { 'gxkf gpeg'qh'c ej cpi gf 'cvkwf g'qt'r gtur gevkg'hqmuy kpi 'vj g
kpgtcevqp05"qh'vj g'9'r ctvkr cpw'vj cv'f kf "pqvtgo ctm'qp'tcpuhqto cvkqp'ctg'uwf gpw'qh
Gpxkqpo gpv'cn'Uwf kgu0

Trend 4: Species Type

Qh'vj g'44'f guetkr vkg'pcttcvkgu.'35'r quu'*7; 0; ' +hgewugf "qp'cp'kpgtcevqp'y kj 'c
vj tgcvgpgf "qt'tctg'ur gekgu'vj cv'vj g'r ctvkr cpv'f qgu pqv'eqo o qpn' 'gpeqwpvgt'kp'vj gk'gxgt { f c {
rkg0Vj gug'ur gekgu'kpenf gf 'c'ugc'rkqp.'j wo r dcemy j crgu.'dgctu.'cp'gm'c'f ggt.'ugc'wtvrgu.'dkuqp.
o qwpvcp'i qcvu.'c'vgtter kp.'ugcnu.'uy cpu.'cpf 'c'wtvrg { 0Qh'vj gug'35'r quu'hgcwtkpi 'kpgtcevqpu
y kj 'tctg'cpko cnu.'8'r quu'*6807' -'cnu'g'zr rckm' f guetkdgf "c'tcpuhqto cvkxg'ghge'v'qp'vj g
r ctvkr cpv'tqo 'vj g'gpeqwpvgt0Qpg'r ctvkr cpv'uckf vj gk'kpgtcevqp'y kj 'c'ugc'rkqp'tgchko gf
vj gk'o qvxcvqp'v'r tqvge'v'y kf rkg'cpf 'hcxg'cpko cnu crpg'ōv'f q'vj gk'vj kpi 0 Cpqvj gt
r ctvkr cpv'y cu'tgo kpf gf "qh'vj g'ko r qv'peg'qh'eqpugt'xcvqp cpf 'vj g'eqgzkv'peg'qh'j wo cpu'cpf
pqpj wo cp'cpko cnu'chgt'vj gk'kpgtcevqp'y kj 'uy cpu0O qtgqxt.'y q'r ctvkr cpw'vj cv'y tqv
cdqw'vj gk'kpgtcevqpu'y kj 'j wo r dceny j crgu'f guetkdgf vj g'gpeqwpvgtu'cu'o cnpki 'vj go 'tghge'v
qp'vj g'j wo cp'ko r cev'qp'vj g'gpxkqpo gpv'cpf 'vj g'etvgn'v'gco gpv'qh'y j crgu'kp'ecr vkv'.'cpf

f guetkdgf 'hggrkpi 'kpur ktgf 'v'eqpvkpwg'yj gk'eqpugtxcvkqp'ghqtu0Qh'yj g'; 'r quu'hgcwtkpi
kpvgtcevkqpu'y kj 'o qtg'eqo o qp'cpko cnu.'4'r quu'*4404' +cnuq'f guetkdgf 'c'tcpuhqto cvkxg'ghgev
qp'yj g'r ctvlek cpv'htqo 'yj g'gpeqwpvgt0Vj wu.'pcttcvkxgu cdqw'gpeqwpvgtu'y kj 'tctg'cpko cnu'y gtg
409'ko gu'o qtg'rkgnf 'v'f kuewu'c'tcpuhqto cvkxg ko r cev'yj cp'gpeqwpvgtu'y kj 'eqo o qp'cpko cnu0
c0 35'qh'yj g'44'r quu'*7; 0; ' +cnuq'kpenf gf 'c'tghgevkkp qp'eqgzkvgep.'yj g'j wo cp'ko r cev
qp'yj g'uwtxkcn'qh'yj g'ur gekgu.'cpf lqt'yj g'ghgevqh'j wo cp'qt'pqpj wo cp'cpko cnu'r tgugpeg
cu'c'r quukdr'f kuwtdcpeg'v'yj g'qyj gt0Qh'yj g'6'r quu yj cv'heuwgf "qp'eqgzkvgep.'cml'qwt
*322' +y gtg'eqppgevgf 'v'kpvgtcevkqpu'y kj 'tctg'cpko cnu0k'qp'g'r quv'cdqw'o qwpvckp
i qcu.'yj g'r ctvlek cpv'uj ctgf 'yj cv'yj g'gizr g'kgep o cf g'yj go "0tgcik g'yj cv'j wo cp'dgkpi u
eqgzkv'y kj 'cpko cnu'cu'y g'uj ctg'yj g'uco g'gctvj 'y kj yj go 0'k'cpqyj gt'r quv.'c'r ctvlek cpv
yj cv'kpvgtcevgf 'y kj 'dkuqp'gizr m'kpgf 'yj cv'yj g'gpeqwpvgt o cf g'yj go "0vj kpm'yj cv'eqgzkvgep
y kj 'cpko cnu'ku'r quukdr'0'Qh'yj g'8'r quu'yj cv'f gcnv y kj 'yj g'j wo cp'ko r cev'qp'pqpj wo cp
cpko cnu.'5'qh'yj g'8'*72' +r quu'y gtg'eqppgevgf 'v' tctg'ur gekgu0Qpg'r quv'cdqw'ugc'wt vgu
tgo kpf gf 'c'r ctvlek cpv'cdqw'0vj g'ko r cev'yj cv'j wo cp

cpko cnu'uj ctkpi 'c'ur ceg0J qy gxgt. 'qh'vj g'35'r quu'vj cv'tghngevgf "qp'vj gug'vqr keu'cu'y gmi'cu
eqgzlvgepeg."; 'r quu'"8604: ' +y gtg'htqo 'kpgtcevkqpu y kj 'tctg'cpko cnu0

Trend 5: Composition of Photograph

J qy 'f'kf 'r tqzko kv 'chgevj' qy 'vj g{'hgn'cdqw'vj g'cpko cnaF kf "k'gxqmg'tgur gev.'hgctA

c0 Y qqf r gengt<õJ g'f'kf pø'uggo "vq'o kpf "o g'uvcpf kpi 'uq enqug.'s wkw' 'o guo gtl gf "y j kg

y cvej kpi 'j ko 'j cr r kn' 'y qqf dqt kpi "cy c{=j g'uggo gf 'tcvj gt r tqwf "vq'uj qy 'qh'h'j ku

r qy gt/r genkpi "cdk'k'gu0K'hgn'vj cv'vj ku'y qqf r gengt cewcm' 'hknf "vj g'cwf kgpeg.'uq"K

hqmjy gf 'j ko "cpf 'hko gf 'j ko "y j kg'pco kpi 'j ko "Y cngtõ

c6w0f'f'cbio'cidd
d0 Gm'okj g'nu'uj puqv'f k'gev'g'zr g'f'j kpi 'j ko 'j cr r kn' 'y cewcg0

- k0 ðVj g'o quv'tgo ctædrg'gZR gtlgpeg'y cu'y kj 'c'i tqwr "qh'y j crgu'y j lej "eqo g
 vj tqwi j "qwt'y cvgtu'kp'O ctej "cpf 'Cr tkn'gcej "{ gct0Uggkpi vj gug'j vi g'cpko cnu
 tgcml 'r wu'j qy 'uo cm'y g'ctg'kpva'r gtur gevkgö
- k0 ðVj gtg'y g'ftkngf'y j kg'dgkpi 'uwtqwpf gf "d{ 'J wo r dcemu hqt'y tgg'j qwtuö
- g0 UgcndöCv'j ku'eqxg'qp'yj g'y cvgt."o cp{ 'ugcni'i cvj gtgf ctqwpf "v'uwpdcvj g0Kuy co 'kp'yj g
 y cvgt'cpf 'y cu'j qpguwl 'uwr tkugf "d{ 'vj g'ugcnu'ixemqhl'j quv'kv' 'cpf 'uggo kpi n' 'f kutgi ctf
 hqt'j wo cpu'uy ko o kpi 'kp'uwej 'emug'r tqzko kv'0Vj g'ugcnu y gtg'uwpdcvj kpi . 'uy ko o kpi .
 erko dlpi "qp'yj g'tqemu."gplq{ kpi 'vj g'uwp."gei "Ky cu ucpf kpi 'uwr gt'emug'v'y q'ugcnu
 y j q'uggo gf "v'i gv'kp'cp'cti wo gpv'y kj "gcej "qvj gt "{ gvf kf 'pqv'gxgp'dcv'cp'g{ g'cv'o g0
 Rtgw{ 'pgcv'j qy "ceewuqo gf "cpko cni'ecp'i gv'v'dgkpi pgct'j wo cpuö
- h0 Dwpp{ <ðK'y cupø'o qxkpi 'cv'cm'gxgp'y j gp'Keco g'emug vq'kv'cpf 'kv'y cupø'drkpnkpi lkv
 g{ g'y cupø'o qxkpi 0Kdgi cp'v'i gv'y qttkgf "cpf 'eqpukf gt vj g'r quukdkkv' 'vj cv'vj g'dwpp{ 'y cu
 htq| gp'v'f gcvj . 'y j lej "uctgf "o g'cpf "o cf g'o g'hggnuq "uqtt{ 'hqt'k0Ky qwr 'pqv'eqpukf gt
 o { ugrh'cp'cpko cni'qxtg'd{ 'cp{ "o gcpu."cpf 'pqto cm{ co "o qtg'chtckf "v'i gv'emug'v'cp{
 y kf "cpko cni'0Rgtj cr u'vj g'hcev'vj cv'vj ku'dwpp{ 'y cu uq'f ghpugruu'ku'y j cv'o cf g'o g'pqv
 hgn'vj tgcvgpgf "d{ 'k'dw'tcvj gt'vj kpnkpi "qh'y c{ u vq't{ 'v'j'j gr 'k0
- i 0 F ggt<ðKmqmgf "qwukf g'yj g'y kpf qy "qh'o { "j qwug"cpf ucy "c'f ggt'uuctkpi 'cv'o g'cpf
 uqo r kpi 0K'y cu'c'tgcm{ "co c| kpi "gZR gtlgpeg'v'u'gg vj g'f ggt'tgeqi pk g'cpf 'kpvgtcev'y kj
 o g0
- j 0 Dkuqp<ðQp'o { 'y c{ 'vj gtg."Kuvqr r gf "o { "ect'v'vcng c'mqm'cv'vj ku'i tqwr "qh'dkuqp0K
 y cvej gf 'vj go "hqt'c'y j kg."cpf "gplq{ gf "dgkpi 'kp'yj gk r t gugpeg0Vj g{ 'f kf pø'uggo "v
 pqv'eg'o g'cpf 'y gpv'cdqw'vj gk'f c{ 'i tcl kpi "cpf 'y cmkpi ctqwpf 0

10 I qcvu<ōKi qv'c'dk'pghtxqwu'cu'vj g{ 'eco g'emug'v'wu'v'etquu'vj g'r cvj 0Vj g{ 'f kf 'pqv'uggo
vq'o kpf 'vj g'fcev'vj cv'vj gtg'y gtg'r gqr ng'cni'cmipi 'vj g'r cvj . 'cu'iqpi 'cu'y g'f kf 'pqv'i gv'vqq
enqugō

10 Ugc'Nkqp<ōQp'qpg'gzr gf kkp'y g'gpeqwpvgtgf 'c'ugc nkqp'ur tcy ngf 'qp'c'dgpej 'tgukpi 0K
ucv'qp'vj g'dgpej 'qr r qukg.'cdqw'8'hggv'cy c{0K'iqqngf wr . 'kf gpv'kkgf 'o g'cu'c'pqp/vj tgcv
cpf 'y gpv'dcem'v'unggr 0K'eqwf pō'j grr 'dw'pqv'eg c'r gtupcrk'v' 'v'j ko . 'hng'j qy '{ qw'hgn
y j gp'{ qw'g'pcr r kpi 'qp'vj g'eqwej 'cpf 'uqo gqpg'y cmu k'p'uq'{ qw'iqqm'wr 'dghgtg'i two r kq
i q'dcem'v'upqq| kpi 0

67067' 'qh'r quu'tghgtgpegf 'j wo cp'r tqzko kv' 'v'y kf nkq ur geku0Ugxgtcn'qh'vj gug'r quu

hpf lpi u'd { 'kmwo kpcvpi 'vj g'xgt dci g'wugf 'vq'f guetkdg'pqp/j wo cp'cpko cni'go qvqpu'cpf 'ugpvkpeg
cpf 'tghphqteki 'vj gk'tguwmu'tgi ctf lpi 'c'eqttgrvqp dgy ggp'hgo cngu'cpf 'go qvqpcr'eqppgevkp
y kj 'pqp/j wo cp'cpko cni'Eqtphuj 'gv'cni'423: -0Hqwtvgg qh'vj g'y gpv{/wy q'r ctvkr cpw'y tqvg
cdqw'vj g'r gtegxgf 'go qvqpu'qh'vj g'cpko cni'kp'uqo g ecr cekv { 'kpf lecvpi 'cp'cempqy rgi go gpv'qh
pqp/j wo cp'cpko cni'ugpvkpeg0k'qy gt'y qtf u.'o qtg'vj cp j cni'qh'vj g'r ctvkr cpw'kpenmf gf
eqo o gpv'tgrvpi 'vq'cpko cni'ugpvkpeg'y j gp'cungf 'vq uj ctg'c'pcttcvkg'cdqw'c'y kf rkhg
kpvgtcevqp0vj gug'r gtegxgf 'go qvqpu'tcpi gf 'öecm ö vq'öci i tguukxgö'cpf 'vj g'r quw'kpenmf gf
y qtf u'wej 'cu'gzekgf . 'tgrczgf . 'htwutcvgf . 'wpr j cugf . eqpvgr0Qh'vj g'r quw'vj cv'kpenmf gf 'vj gug
ng{y qtf u'cpf 'ugpvko gpvu.'vj g'ur geku'qh'vj g'cpko cntcpi gf 'htqo 'mqecn'dcem{ ctf 'dglpi u'vq
kpvgtpcvqpcn'tctg'ur geku'kpf lecvpi 'vj cv'ur geku rkngr{ 'j cf 'pq'ko r cev'qp'y j gj gt'qt'pqv'vj g
r ctvkr cpv'kpenmf gf 'eqo o gpv'qp'ugpvkpeg0O cp{ 'qh'vj g'ur geku'ctg'hqwpf 'kp'vj g'Wpkgf 'Ucvgu
dw'mqecvqpu'cni'kpenmf gf 'Uy k/ gtrpf . 'Dgto wf c. Dtc| kn'cpf 'vj g'I cnr ci qu0P qpg'qh'vj g
r ctvkr cpw.'j qy gxgt.'wugf 'vj g'y qtf 'ugpvkpeg'kpf lecvpi 'vj cv'r gtj cr u'vj g{ 'gZR gtlkpeg'cpko cn
ugpvkpeg'y kj qw'j cxkpi 'rgctpgf 'cdqw'vj g'hqto cneqpegr 0F qnd{ 'cti wgu'hqt'vj g'gZR cpukp'qh
gpv'kqpo gpcn'gf wecvkq'ur gekk'ecm{ 'tgrcvgf 'vq'go r cvj { cpf 'cpko cni'ugpvkpeg'y j lej 'y g'cni'q
tgeqo o gpf 'cu'o cp{ 'r ctvkr cpw'y gtg'pqv'cu'y gmlphqto gf qp'eqpugtxcvq'cpf 'vj g'go gti lpi
rkvgtcwtg'qp'ugpvkpeg'0F qnd{ 'gv'cni'4242-0Gf wecvkq'ur gekk'le'vq'vj ku'vqr le'dglpi 'i kxgp'r tkqt'vq
eqpf wevpi 'c'uwf { 'uwej 'cu'vj ku'o c { 'j cxg'ko r rdevkqpu qp'tguwmu'cpf 'vgtö kpcni { 'wugf 0

Trends in human emotion

Vj g'f cv'eqmgev'f 'uj qy u'vj cv'j wo cpu'gZR gtlkpeg'c dtqcf 'tcpi g'qh'go qvqpu'y j gp
kpvgtcevpi 'y kj 'vj g'rkv'gu'cpf 'ugpvkpv'ur kksu'qhy kf rkhg'cpko cni'0Y j gp'r ctvkr cpw'tgr qtvf
hgrkpi u'qh'go r cvj { 'hqt'pqp/j wo cp'cpko cni'vj g{ 'hgrvy gtg'utwi i rki 'kp'uqo g'y c{.'vj g{
o gpv'kqpg'j qy 'vj g'cpko cni'utwi i ng'o cf g'vj go 'vj kpmetk'ecm{ 'cdqw'j wo cp'cpf 'pqp/j wo cp

cpko cnlkpvtcevkqpu'cpf lqt'eqpugtxcvkqp0Vj ku'kpf kpi 'tghgevu'y g'y qtm'qh'*Y cmcej 'g'v'c'0'423: +
k'p'y j lej 'y g'cwj qtu'ucv'g'y cv'uwo o qpkpi "eqo r cuukqp ku'ko r qtcv'p'y j gp'y kpnkpi "etk'k'ecm' "cpf
g'y k'ecm' "cdqw'eqpugtxcvkqp0K'p'v'gt'gukpi n' . 'y g'eqo r cuukqp ug'xgt'cn'qh'y g'r ct'v'ekr cp'u'h'gn
k'pxqmgf 'c'ugpug'qh'f w'f 'v'q'eqpugt'xg'y g'rk'x'gu'cpf y gm'dgkpi "qh'y k'f r'k'g'cpko cnu'0Vj g'o clqtk'f "qh
r ct'v'ekr cp'u'g'zr t'guugf 'r qukk'x'g'h'gnkpi u'k'p'y g'k' p'ctt'c'v'x'gu't'geq'w'p'kpi 'y g'k'g'zr g't'k'g'pegu'y k'j
y k'f r'k'g'cpko cnu'0Vj ku't'g'p'f 'ku'g'z'ek'kpi "dw'p'q'v'p'ge'gu'ct'k'f u'w'r t'k'k'pi 0O q't'g'q'x'g't.'u'w'ej 'h'k'p'f k'pi u
c'h'k'to 'y c'v'ek'k' g'p'v'ek'g'peg'i t'q'w' u'r t'q'x'k'f g'go q'v'x'g' g'zr g't'k'g'pegu'y t'q'w' j 'g'f w'ec'v'kpi 'r ct'v'ekr cp'u'q'p
ko r q't'c'v'p'g'p'x'k'q'p'o g'p'w'c'n'v'q'r k'eu'*R'c'g'eq'g'v'c'f'0'4243+0

Trends in Transformative Narratives

Vj g't'gu'w'u'h'q'w'p'f 'k'p'y k'u'w'w'f { 'ct'g'eq'p'uk'v'g'p'v'y k'j r t'g'x'k'q'w'u'w'w'f { a'k'p'f k'pi u'y cv
g'zr g't'k'g'pegu'y k'j 'y k'f r'k'g'j' c'x'g'y g'c'd'k'k'f 'v'q'o q'v'x'c'v'g' j wo cp'c'ev'q'tu'v'q'y c't'f "go r c'v'j g'v'k'e'c'ev'k'p'p'u
v'q'y c't'f 'y k'f r'k'g'c'p'f "c'h'g'ev'x'g'c'p'f "go q'v'k'p'c'n't'g'ur q'p'ug'u v'q'y k'f r'k'g'u'v'ko w'k'*N'c't'u'q'p'g'v'c'f'0'4238=
F'q'nd'f . "42420N'c't'u'q'p'c'p'f "eq'm'g'c'i w'g'u'h'q'w'p'f 'y c'v'g'zr g't'k'g'pegu'y k'j 'j' q'w'ug'ur c't't'q'y u'r q'uk'k'x'g'n'f
c'h'g'ev'g'f 'r ct'v'ekr cp'u'v't'g'c'w'o g'p'v'q'h'y'j g'ur g'el'g'u.'y j lej k'u'w'r r q't'v'g'f 'd' { 'y g'q'x'g't'y j g'm' k'pi 'r q't'v'k'p'p
q'h'g'zr g't'k'g'pegu'y c'v'q'w't'w'w'f { 'h'q'w'p'f 'v'q'd'g'r ct'v'ek'w'c't'n'f v't'c'p'uh'q'to c'v'x'g'0'F'q'nd'f { 'h'q'w'p'f 'y c'v'y t'k'k'pi
cp'g'u'uc' { 'h't'q'o 'y g'r g't'ur g'ev'x'g'q'h'c'p'c'p'ko c'n'y g' { 'j' c'f r t'g'x'k'q'w'u'f "q'd'ug't'x'g'f "eq'p't'k'd'w'g'f
u'k'i p'k'h'ec'p'v'f 'v'q'y'j g'k'g'p'x'k'q'p'o g'p'w'c'n'g'f w'ec'v'k'p'p'c'p'f go r c'v'j g'v'k'e'eq'p'p'g'ev'k'p'v'q'c'p'ko c'nu'*F'q'nd'f .
4242+0Q'w't'w'w'f { "eq'p't'k'd'w'g'u'v'q'F'q'nd'f { a'y q't'm'f' { 'u'j' q'y e'c'uk'pi 'y g'r q'y g't'q'h'g'zr g't'k'g'p'v'c'n't'g'h'g'ev'k'p'p
q'p'j' wo c'p'a'eq'p'eg'r v'k'p'p'u'q'h'c'p'f "eq'p'p'g'ev'k'p'p'u'y k'j "q'v'j g't'ur g'el'g'u'0H'k'g'g'p'q'h'y'j g'44'*8: Ø: ' +
r ct'v'ekr cp'u'g'k'j g't'ko r r'ek'n'f "q't'g'zr r'ek'n'f "t'g'h'g't't'g'f v'q'y'j g'v't'c'p'uh'q'to c'v'x'g'p'c'w'w'g'q'h'y'j g'k't'y k'f r'k'g'
k'p'v'gt'cevk'p'p.'u'w'i i g'uk'pi 'y c'v'k'p'et'g'c'ug'f 'h't'g's'w'g'p'e' { "q'h'j wo c'p/y k'f r'k'g'k'p'v'gt'cevk'p'p'u'j' cu'y'j g'r q'v'g'p'v'c'n
v'q'ko r t'q'x'g'v't'g'c'w'o g'p'v'q'h'q'v'j g't'ur g'el'g'u'0"R'ct'v'ekr cp'v'38a'u'uc'v'g'o g'p'v'ec'r w't'g'f 'y g'ug'p'v'ko g'p'v'q'h
o c'p' { "q'h'y'j g'i t'q'w' a'u'o go d'g't'u'c'v'j g' { 'y g't'g'x'g't' { 'ec'm' c'p'f "ug'go g'f "s'w'k'g'eq'p'v'g'p'v'l'w'v'j' c'p'i k'pi "q'w

qp'vj g'o qwpvcp0Vj ku'gZR gtlgpeg'o cf g'o g'tgcrk g'vj cv'j wo cp'dgkpi u'eqgzku'v'y kj 'cpko cnu'cu'y g
uj ctg'vj g'uco g'gctvj 'y kj 'vj go 0K'r ctvkwrt.'tghgtgpegu vq'eqgzku'v'y gtg'j ki j n' r'tgxcrgp0
Vj ku'o c{ 'dg'f wg'vq'j wo cpai'f qo kpcpeg'lp'vj g'pcwctny qtrf . 'qhv'p'ngcf kpi 'vq'ugr ctcv'kp'qh
ur gelgu0'Y j gp'j qo q'ucr kgpu'ctg'gpeqwtci gf 'vq'lpvgtcevy kj 'qvj gt'ur gelgu'lp'vj gkt'v' r'lecn
gp'xkqpo gpv.'vj g{ 'ctg'cdng'vq'f geqpuv'wv'vj g'f qo kpcp'vpcw'g/uqekg'v' 'kf gqni' lecn'f kxkf g0
Cempqy rgi i kpi 'vj g'xcnw'g'qh'o wnkur gelgu.'cu'lpvtqf wv'gf d{ 'cwj qtu'Mktmug{ 'cpf
J gm tglej *4232+.'kp'qwt'uj ctgf 'gp'xkqpo gpv'ku'c'etwecnu'v'g'v'qy ctf u'l'wuv'r t'gugt'xcv'kp'v'Mktmug{
cpf 'J gm tglej . '4232+0' Cp'qxgty j gm kpi 'o clqtk'v' 'qh'vj g'gZR r'lekn' 'v'cpuhqto cv'xg'gZR gtlgpegu
qeewt'gf 'dgw'ggp'j qo q'ucr kgp'cpf 'c'ur gelgu'vj g{ 'lpvgtcevy kj 'tctgn'0'Vj ku'o c{ 'uwi i guv'vj cv
ur gelgu'lpvgtce'v'kp'v'ctg'o qtg'r qy g'hw'v'j gp'vj g{ 'eqpvt'cu'v'v' r'lecn'lpvgtce'v'kp'v'0' Hqt'gzco r'ng.
Rctv'lekr cpv'4'y tqv'g'cdqw'v'j gkt'gZR gtlgpeg'y kj 'j wo r'dcemy j crgu'0'Vj g'f c{ 'y cu'qpg'Ky km
hqt'gxgt'tgo go dgt'y kj 'vj g'v'cpuegpf gpv'uqwpf u'qh'y j crgu dt'gcej kpi 'pgctd{ 'cpf 'vj g'tgcrk'v' 'qh
y j cv'y g'xg'f qpg'vq'vj gug'y cvgtu'ukp'kpi 'lp.0'Vj g r'ctv'lekr cpv'tgr qt'v'gf 'vj cv'vj g'gZR gtlgpeg'j cf 'c
f'kt'gev'lo r'cev'qp'vj gkt'y qtm'cpf 'eqpvt'kdw'k'v'v'q'eqpugt'xcv'kp'v' kpk'cv'x'gu'0' Cff'k'k'q'p'cm{ . 'ej ctkuo cv'le
gZR gtlgpegu'y kj 'cpko cnu'o c{ 'j cxg'vj g'r'qv'p'v'cn'v'q dg'o qtg'v'cpuhqto cv'xg'0'Rctv'lekr cpv'33
eqpp'ge'v'f'y kj 'c'f'gg'v'0'K'v' dt'qwi j v'o g'em'ugt'v'q'y kf r'ng' cpf 'K'hn'o qtg'eqpp'ge'v'f'0'K'v'ug'cf 'qh'l'wuv
qdu'gt'x'kpi 'vj ku'cpko c'nt'qo 'vj g'lp'v'kf g.'Ky cu'ce'w'cm{ o c'nkpi 'g{ g'eqp'cev'cpf 'dgkpi
cempqy rgi i gf 'd{ 'vj ku'f'gg'0'J wo cpu'o c{ 'dg'o qtg'eqpp'ge'v'f' cpf 'o q'v'x'cv'gf 'vq'r tq'gev'ur gelgu
vj cv'gzj kdk'j wo cp'v'ng'v'g'c'w'wt'gu'0'Vj g't'gu'w'u'uj qy vj cv'vj gug'lpvgtce'v'kp'v'ctg'lo r'qt'v'p'v'ht
k'pvt'qf wv'kpi 'o wnkur gelgu'eqpp'ge'v'k'p'cpf 'ug'p'v'k'peg'0 Vj ku'uwf { 'y cu'ur gel'k'le'cm{ 'lpvgt'g'v'gf 'lp'vj g
gh'gev'qh'vj gug'lpvgtce'v'kp'v'qp'r'gtur ge'v'x'gu'qh'eqpugt'xcv'kp'v'=j qy g'xgt. 'qpn' 'h'x'g'gZR gtlgpegu'j cf 'c
f'kt'gev'v' r'qu'k'x'g'lo r'cev'qp'vj g'r'ctv'lekr cpv'v'eqpugt'xcv'kp'v' kpk'cv'x'gu'0'Vj gug't'gu'w'u'uw' i guv'vj cv
vj gtg'ku'c'ec'w'uc'ng'gh'gev'qh'y kf r'ng'lpvgtce'v'kp'v'qp'j wo cpai'r'gtur ge'v'x'gu'qp.'go q'v'k'p'v'uj ctgf 'y kj .

tgugtej 'hqt cv'etgcv'cp'k'pvtcevxg'cpf 'o gcpkpi hwi'gZR gtlgpeg'hqt'yj g'r ctvkr cpw. 'k'ecp'dg
kpetgf kdn' 'tcpuhto cvxg'hqt'yj g'tgugtej gtu'cu'Tlej ctf uqp *4223+'j ki j rki j w'cpf 'f'kuewugu'cv
ngpi yj 'kp'j gt'y qtn0Cffkkqpcmf. 'wukpi 'c'pqp/tcpf qo eqpxgpkpeg'uco r ng'etgcvf 'c'f'kxgtug
r ctvkr cpv'dcug0Vj g'r ctvkr cpv'r qqr'ku'eqo r qugf qh'cm'ci gu'qxgt'yj g'ci g'qh'3: . 'dqyj 'eqmgi g
cpf 'pqp/eqmgi g'uwf gpw. 'cpf 'c'o kz'qh'Dquvq'Eqmgi g cpf 'pqp/Dquvq'Eqmgi g'eqo o wpkf
o go dgtu0J cxkpi 'c'f'kxgtug'i tqwr 'qh'r ctvkr cpw'r tqxkf gf c'y kf g'tcpi g'qh'k'pvtg'w'lp'y kf rkg.
r gtur gevkgu. 'cpf 'gZR gtlgpegu'y kj 'y kf rkg0Wukpi Hcegdqnm'cu'yj g'ej qugp'r r'v'hto 'hqt
eqpf wvki 'y ku'tgugtej 'cmqy gf 'yj g'r ctvkr cpw v' hqugt'eqppgevkpu'y kj 'gcej 'qyj gt'cpf 'yj g
tgugtej gtu'k'pugcf 'qh'dgkpi 'dnkf 'v'y j q'yj g'qyj gt r ctvkr cpw'y gtg0Vj ku'wps wg'qprkg
r r'v'hto 'r tqxkf gu'c'pgy 'eqv'kdwkp'v'eqo o wpkf dwkf kpi 'kp'eqpf wvki 'gy pqi tcr j le.
pcttcvxg'tgugtej 0Vj g'tgugtej gtu'r qugf 'gf wecvkpcnxf gqu'qy ctf u'yj g'gpf 'qh'yj g'f'cv
eqmgevkp'r tqegu'v'k'p'hto 'yj g'o go dgtu'qh'yj g'i tqwr qh'yj g'tgcuqpu'hqt'yj g'tgugtej 'cpf
gZR r'k'kpi 'hg' { 'eqpegr w'lp'yj g'pqp/j wo cp'cpko cntgugtej ur ceg0Vj ku'cmqi 'y kj 'yj g'k'p'wukp
qh'r gtuqpcn'pcttcvxg'ku'lp'yj g'o cpwetr v'cmqy gf 'yj g' tgugtej gtu'v'eq/etgcv'yj kj 'yj g'r ctvkr cpw
cpf 'gcej 'qyj gt'yj tqw j 'yj g'eqv'kdwkp'qh'r gtuqpcncpgef qv'gu0Ukwc'kpi 'yj g'tgugtej gtu'yj kj k
yj g'pcttcvxg'ur ceg'cu'qr r qugf 'v'c'r w'g'qdugtxcvkpcncpf 't'gkgtcvxg'tqrg'ku'y j cv'o cngu
pcttcvxg'tgugtej 'cpf 'gy pqi tcr j { 'wps wg'cu'pqyf d { 'D%pkuj /Dtgf plej '*423: +0Y j cv'ugw'qwt
uwf { 'cr ctv'ku'yj g'eqv'kdwkp'qh'qwt'xqlegu'lp'yj g' tgugtej 'ur ceg'v'gf wecv. 'k'p'hwpeg. 'cpf
go qv'cmqi ukf g'r ctvkr cpw'lp'v'wg'ugpv'k'p'v'hto 0Vj ku'uwf { 'y cu'rti gn' 'cp'qtki k'p'cntgugtej
o gy qf 'f'guki p'yj lej 'cmqy gf 'yj g'tgugtej gtu'v'ckqt yj g'r tqegu'v'ur gekk'f'gukt gf 'qweqo gu
cpf 'ko r necvkpu'hqt'yj g'tgugtej gtu. 'r ctvkr cpw. cpf 'rti gt'h'gn' 'qh'y kf rkg'tgugtej 0

Limitations

Y j krg'vj g'f guki p'qh'vj ku'uwf { 'qhhgtgf 'o cp { 'dgpghku'v'vj g'tgugctej . 'vj gtg'ctg'ugxgten cur gew'vj cv'bo c { 'hko k'vj g'cdkxk { 'v'hqto 'f ghpkxkg'cpf 'i gpgtcrk cdr'eqpenwukpu0' Cnj qwi j gzvpukg'ghqtu'y gtg'vcngp'v'kpxkg'kpvgtguvf r ctvlekr cpw'v'vj g'i tqwr . 'vj g'uk' g'qh'vj g'uco r ng y cu'uo gy j cv'uo cm'y kj 'qpn { '44'qh'64'v'vcl'j wo cp r ctvlekr cpw'uj ctupi 'vj gk'g'zr g'kpegu'y kj vj g'i tqwr 0'Vj g'uo cm'uk' g'qh'r ctvlekr cpw'cm'y gf hqt'o qtg'gzvpukg'cpf 'kpenwukg'cpcn { uku'qh pttcvkxgu=j qy gxgt. 'vj g'uco r ng'bo c { 'pqv'dg'tgr t'gugpvcxkg qh'vj g'i tgcvt'j wo cp'r qr wvckp0 Cffkxqpcn { . 'vj g'uco r ng'y cu'qxgty j gm kpi n' 'hgo crg. y kj 'qpn { 'qpg'o crg'r ctvlekr cpw'0'Vj g'xcuv o clqtk { 'qh'r ctvlekr cpw'*99049' -'ctg'eqmgi g'uwf gpw0Uq. 'vj g'hpf kpi u'o c { 'dg'r tko ctkn { i gpgtcrk cdr'v' 'hgo crg'eqmgi g'uwf gpw0k'p'ok'penwukgpguu cpf 'F kxgtuk { 'k'Ekkl gp'Uelkpeg.ö Rcrgeq'cpf 'eqmgi wgu'utguu'vj g'tqrg'qh'ekkl gp'uelkpeg k'r tqf wvckpi 'hpqy rgi g. 'y j kej 'y g. 'cu t'gugctej gtu. 'etgcvg'vj tqwi j 'qwt'htco kpi 'qh'qwt'pctcvkxgu cpf 'vj g'r ctvlekr cpw'y g'kpenw' g'*Rcrgeq gv'cr0'4243+0k'vj g'r tqeguu'qh'qwt'tgugctej . 'qwt i tqwr 'j cu'go dtcegf 'uwlgevkxg'g'zr g'kpege= j qy gxgt. 'k'ku'ko r qv'cpv'v'v'tgeqi pk' g'vj cv'qwt'kf gpv { cu'hgo crg'eqmgi g'uwf gpw'eqpvt'kdwgf 'v'c nguu'vj cp'kpenwukg'uco r ng0Ncuw { . 'vj g'qr gp'gpf gf pcwtg'qh'vj g'r tqo r v'rgf 'v'f khhgt'gpegu'k'p eqpv'p'v'ko k'kpi 'vj g'tgugctej gt'v'ecr cek { 'hqt'f k'geveqo r ct'kuq'qh'r ctvlekr cp'v'zr g'kpegu0

Implications

Vj tqwi j qw'qwt'uwf { . 'qwt'k'v'g'p'v'k'p'y cu'v'q'hqewu'qp eqppgevkpi 'r gqr ng'ctqwpf 'vj g'kf gc'qh r tqgevkpi 'qwt'uj ctgf 'gpxkqpo gp'0'Y g'clo gf 'v'k'pukmcp'go qv'k'p'cn'cr r tqcej 'v'v'gh'ng'v'k'p'pu'qp y k'f r'kg'k'p'v'gt'cev'k'p'pu. 'cpf 'd { 'uq'f qkpi . 'uj gf 'hki j v'qp'vj g't'gr'v'k'p'uj k' 'dgy ggp'r ctvlekr cpw'ø wpf gtu'w'cpf kpi 'qh'p'qp/j wo cp'cpko cn'ugp'v'k'peg'cpf 'vj gk'qr k'p'k'p'pu'qp'eqpugt'x'v'k'p'cpf dkqf kxgtuk { 0'Dcugf 'qp'qwt't'guwuu. 'k'p'y j kej 'r ctvlekr cpw' t'gcf kn { 'uj ctgf 'c'y k'f g'x'ct'k'g'v' { 'qh vj qwi j v'w'v'pctcvkxgu'cdqw'vj gk'g'zr g'kpegu'y kj y k'f r'kg'v'vj cv'go dtcegf 'vj gk'go qv'k'p'pu'cpf

eqo o wpkv{ 'eqwf 'uwf { 'y j cv'y g'o quv'ghgevxg'y c{ u'ctg'vq'lpetgcug'cpf 'o clpvk'gpi ci go gpv
 co qpi 'r ctvkr cpw'y kj 'vj gug'vqr leu0Hwwt g'tgugctej gtu eqwf "gxr mgtg'kh'uj ct'kpi 'ctvkr gu.
 Htgs wgpv{ 'eqo o gpvki 'cpf 'rknpi 'r quu.'r tqxkf kpi pgy 'r tqo r w'qt 'qyj gt'eqpvgpvtgi wctn{.'wukpi
 õNkxgö'hgcwt gu'qt 'qyj gt'hcegu'qh'yj gug'uqekn'pgy qtnkpi r rvhqtu u'y qwf "dg'yj g'o quv'uweeguuhwn
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References

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 Sociology*. 42*4+.'383/39; 0

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 P cvkpu.'8'O c{ '423; .
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Appendix A.

Recruitment and Informed Consent Message (Sent to participant after joining the Facebook group)

Vj cpm{ qwhqt "{ qwt 'kpvgt gu'kp'r ct vkr c'kpi 'kp'qwt uwf {0Vj tqwi j 'y ku'tgugctej 'y g'j qr g'v'gdwgt wpf gtucpf 'y g'y c{u'j wo cp'hggnkpi u'cdqw'cpko cni'ugpvkpeg cpf 'go qv'kqp'ecp'ko r cev'y g vgcwo gpv'qh'cpko cni'cpf 'c'kwf gu'cdqw'eqpugt'xcv'kqp0

Ki{ qw'ci tgg'v'cng'r ctv'kp'y ku'uwf {."{ qw'y kndg'cungf 'v'uwo k'r gtuqpcn'cpgef qv'gu'cdqw"{ qwt kpvgtcevkpu'y kj 'y kf rkhg0K "{ qwt 't'gur qpugu'y g'gpeqwtci g { qw'v'g'gh'gev'qp "{ qwt go qv'kpcn'eqppgevkqp 'v'y kf "cpko cni'cpf "{ qwt 'kpvgt'rgv'kqp qh'cpko cni'go qv'kqp0Y g y greqo g'y g'uwo k'kqp'qh'pettev'xgu.'r j qvi ter j u. xkf gqu'cpf lq't'cwf kq'tgeqtf kpi u'qh { qwt 'kpvgtcevkpu'y kj 'y kf rkhg0

Y g'ctg'j qr kpi "{ qw'o c{ 'dgpgh'htqo 'dglpi 'kp'y ku'uwf { cpf 'kp'y g'eqo o wpk' 'etgcvf 'y tqwi j qwt'r r'v'htqo 'y j lej 'y kn'hqugt'o gcpkpi hwi'eqpxgtucv'kpu cdqw'r ct vkr cpwø j wo cp/cpko cni'kpvgtcevkpu0Vj g'tgugctej gtu'j qr g'v' i gpgtcv'npqy rgi g'cdqw'y g'tqng'qh j wo cp'w'pf gtucpf kpi 'qh'ugpvkpeg'kp'eqpugt'xcv'kqp'r tcevegu y cv'o c{ 'dgpgh'v'uekv'0

Vj g'tgeqtf u'qh'y ku'uwf { 'y kn'dg'ngr v'r tkxcv'g0K cp{ 'uqtv'qh'tgr qt'v'y g'o c{ 'r wdrkuj . 'y g'y kn'pqv kpenf g'cp{ 'kphqto cv'kqp'y cv'y kn'o cng'k'r quukdng v'k'f gpv'kh{ "{ qw'kh{ qw'y kuj 'v'g'go clp cpqp{ o qwa0Ki{ qw'j cxg's wgu'kpu'cdqw'y ku'tgugctej . { qw'o c{ 'eqpvcev'lgppk'ht 'Uej cwt. lgppk'ht'ngm{GB deQf w.'839/774/63520

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