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

Authors

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Authors' Contributions

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Running Title

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Keywords

Ugpvkgpeg="eqpugtxcvkqp="dkqfkxgtukv{="ykrfrkhg="eqgzkuvgpeg

Word Count

; 54:

Article Impact Statement

Vj ku'r cr gt 'kf gpvkhkgu''cpf ''o gcuwt gu''ōj wo cp''r gtegr vkqpu qh''cpko cn'ugpvkgpeg.ö'kpuvknkpi ''cp go qvkqpcn''cr r tqcej ''vq''tghrgevkqpu''qp''y krf nkhg''kpvgtcevkqpu. eqpugtxcvkqp. ''cpf ''dkqf kxgtukv{0

Acknowledgements

Vj g'tgugctej gtu'y qwrf 'hkng''vq''yj cpm'Rtqhguuqt''Igppkhgt Uej cwgt.''yj g'Gpxktqpo gpvcn'Uwf kgu r tqi tco .''Rtqhguuqt''Vctc''Rkucpk'I ctgcw.''qwt'hgmqy Ugpkqt''Tgugctej 'Ugo kpct'encuno cvgu.''cpf ''qwt r ctvkekr cpvu'hqt''yj gkt''eqpvtkdwkqpu''vq''qwt''uwwf {0

Introduction

Vj g'tgrcvkqpuj kr ''dgwy ggp''j wo cpu''cpf ''pqp/j wo cp''cpko cru j cu''gxqrxgf ''vj tqwi j qwv'j kurqt{ cpf "xctkgu"dgw ggp"ewnwtgu. "eqo o wpkkgu. "cpf "kpf kxkf wcn.0Ur gekhkecm(. "j qy "r gqr ng"xkgy "cpf xcnwg'pqp/j wo cp'ugpvkgpeg'j cu'dggp'c'\qr ke'qh'tgugctej co qpi 'uej qrctu01cpg'1 qqf cm'y cu'qpg qh'vj g'hktuv'gzr gtvu'vq'f kuo cpvrg'vj g'r qr wrct "eqpegr v qh'vj g'f kej q vqo { "dgwy ggp"j wo cpu'cpf cpło cni'd { "r tqxlpi "vj cv'\qqn/wug. "ewnwtg. "cpf "go qvlqpcneqppgevlqp"ctg"pqv'wpls wg'\q j qo qucrkgpu0'Uj g'uwi i guvgf "vj cv'vj qug'y j q'j cxg'urgpveqpukfgtcdrg'Vkog'y kaj 'cpkocru'tgeqipk|g yj cv'qwt 'pqp/j wo cp'eqo r cpkqpu'cpf 'y krf rkhg'r quuguu ugpkgpeg0'Uj g''ct klewrcvgf ''yj cv.''õqpeg''{qw ctg"r tgr ctgf "vq"cf o ki'vj cv'cpko cni'ctg"ugpvkgpv'cpf ecppqv'qpn("mpqy "go qvkqpu'rkng"j cr r kpguu. ucf pguu. 'hgct. 'dw'gur gelem(''yj g{ ''ecp 'hggn'r ckp''ô yj gp. ''cu'j wo cpu'y kj ''cf xcpegf 'tgcuqpkpi r qy gtu. 'y g'j cxg'c'tgur qpukdkrk ("vq'\tgcv'yj go "kp o qtg'j wo cpg'y c{u'vj cp'y g'uq'qhvgp'f qö'\Lcpg I qqf cm'Kpukswg.'423; +0'Dgecwug'j wo cpu'r m{ 'c'icti g tqng'kp'pqp/j wo cp'cpko cn'eqpugtxckqp. yj g"gzvgpv"vq"y j kej "j wo cpu"wpf gtuvcpf "cpf "gzr gtkgpeg ugpvkgpeg"co qpi "pqp/j wo cp"dgkpi u"o c{ ko r cev'y g'hwwtg'qh'eqpugtxcvkqp'cpf 'y g'hwwtg'qh j wo cp/y krf rklg'kpvgtcevkqpu'cpf 'eqgzkuvgpeg0 kp regegpv" {gctu."gzrgtwi"jcxg"ecmgf 'hqt" y g"fkocpvkpi qh" tcfkkqpcn'dkpctkgu"dgw ggp"jqoq ucr kgpu'cpf 'pqp/j wo cp'cpko cnu0' | f go kt'uwi i guvu'y g dtgcm'y g'dkpct { 'dgw ggp'j wo cpu'cpf pqp/j wo cp"cpko cni'cpf 'dgw ggp'j wo cpu'cpf 'pcwtg'y kj i qxgtpcpeg'htco gy qtmi'hng'õQpg P cwtg05"Uvej "c"r ctcf ki o "ecmu'hqt"j wo cpu'vq"o qxg dg{qpf "cpvj tqr qegpvtke"y c{u'qh'vj kpmkpi cpf "qr gtc kpi "y kij kp" 'j g"i mdcn" gequ { uvgo 0 Vj ku" dgi kpu y kij "t geqi pk kpi "cpko cn'ugp kgpeg *' | f go kt.'4242'"2

Problem

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ugpvkgpv'dgkpi u'kp"qtf gt 'vq'tgeqi pk g"qwt'eqo o qp"r rceg"qp"Gctyj 0'Y ky kp"y ku'eqo o wpkv('ugvkpi . y g"y cpv'vq'hquvgt"o gcpkpi hwitghrgevkqpu'cdqwv'j wo cp/cpko cnkpvgtcevkqpu''y cv'y knikphrwgpeg r ctvkekr cpvuø'qy p"rkxgu0'Kp"qwt "ecmihqt"y tkwgp"pcttevkxgu. y g"ctg"j qr kpi "vq"j cxg"cp'ko o gf kcvg ghtgev'qp"dqyi "vj g'tgugctej gtu"cpf ""vj g'r ctvkekr cpvu0Dwkrf kpi "qhh'qh"Tkej ctf uqpøu'kf gcu. "vj g tgugctej gtu"dgrkgxg"vj cv'vj g'y tkkpi "r tqeguu'y kmkpkkcvg"f kueqxgt { 'hqt "vj g'r ctvkekr cpvu. 'kpur ktg eqppgevkqp"dgw ggp"j wo cp"r ctvkekr cpvu'cpf 'ugpvkgpv rkhg. "cu'y gm'cu'r tqf weg"o gcpkpi "cpf "etgcvg pgy "cy ctgpguu'qh'tgcrkw{ 'kp"vj g'r tqeguu'*Tkej ctf uqp. 4223+0'Vj g'tgugctej gtu'cempqy rgf i g'vj cv y tkkpi "ecppqv'dg'wpvckpvgf 'htqo "vj g'rkhg"gzr gtkgpegu qh'vj qug'y d

vq"cenpqy ngf i g"cpf" 'vj ctg"'y g"r gtuqpcn'r gtur gevkxgu"qh'cm't gugctej gtu"kpxqnxgf ." j gtgkp0'Gcej cwj qt"dtkpi u"wpks wg"gzr gtkgpegu." gf wecvkqp. "cpf" go qvkqp vq" y g"vcdng0'Uj ctkpi "y gug"r gtur gevkxgu etgevgu"c" o qtg"qr gp"cpf "r gtuqpcn'eqppgevkqp" dgwy ggp yi g"tgugctej gtu"cpf" 'yj g"tgcf gtu0'Kp" yi gkt y qtm"Vtgxgu"cpf "eqnngci wgu"kpenwf g"c"ugevkqp" y j gtg yi g{"cenpqy ngf i g"cpf" uj ctg" yi gkt"xct {kpi qr kpkqpu"cpf "xkgy r qkpvu"qp" yi g"vqr ke"qh'r tgugtxcvkqp0 Vj g"cwj qtu"uj ctg" yi cv" y j kng" yi g{"cm'ctg r cuukqpcvg"cdqw' yi g"uwdlgev'cpf" ctg"eqpvtkdwkpi kpvgngewcn'eqpvgpv' vq" yi g"ctvkeng." yi g{"ctg"pqv cm'r gthgevn("cnki pgf" kp" yi gkt"xkgy u"qh'pqp/j wo cp cpko cn'tki j vu"*Vtgxgu"gv'cn')"423; +0'Uko knctn{. y g" y qnf "xct {kpi "qr kpkqpu"cpf" 'dgnkghu"qp" yi g"vqr ke qh'pqp/j wo cp"cpko cn'ugpvkgpeg"cpf eqpugtxcvkqp0'Vj wu."Vtgxgu"cpf "eqnngci wgu" y cxg"kpur ktgf yi ku'ugevkqp. "y j kej "y g" y cxg" ej qugp" vq f gf kecvg" vq" yi g"r gtuqpcn'pcttcvkxgu"qh'yi g"tgugctej gtu0

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pqp/j wo cp"cpko cnu='y wu 'kv'ku'y g'f w{ "qh'j wo cpu vq'tgeqi pk g''y cv'uj ctgf "ugpvkgpeg'ku'kp"f ktgev
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Tgkn{ "ci tggu''y ky "F qwi ncu''y cv'cwkwf gu''vqy ctf u j wo cp/cpko cn'tgncvkqpu''o wuv'dg''tgeqpukf gtgf
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f ggr n{ 'kpi tckpgf 'kp''vqf c{ øu''uqekgvkgu''y cv'kpf kxkf wcnu o c{ 'pggf 'vko g''vq''ceenko cvg'''vq''y g''uj khxkpi

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N{ pej "ku"eqo r gmgf "\q"f geqpunt wev"f qo kpcpv'ur gekgu ecvgi qtkgu"cpf "y qtm'ci clpun'y g j wo cp"gzegr vkqpcnkuv'htco gy qtm'0'kpur ktgf "d{"yj g'y qtmqh'Mktmug{"cpf "J gmo tgkej "*4232+."N{ pej j qr gu"\q"dtkpi "kp"r gtur gevkxgu"qh'gs wcrkx{."tgr ncekpi yj g"ncpi wci g"qh"pqpj wo cp"ur gekgu"y ky o wnkur gekgu"wpf gtuvcpf kpi 0'Cf f kklqpcm{."kv"ku"ko r gtcvkxg vq"cf xcpeg"qwt "Y guvgtp"r wdrke wpf gtuvcpf kpi "qh"cpko cn'ugpvkgpeg"dg{ qpf "wkrkxctkcp xcnwcvkqp"qh'ur gekgu."cpf "vqy ctf u"cp wpf gtuvcpf kpi "qh"o wnkur gekgu"cu"i qqf "vq"nkxg"y kyj . cpf "co qpi "*Mktmug{"cpf "J gmo tkgej ."4232+0

Tkej ctf u'dgrkgxgu''y cv'y g'dkpctkgu''y cv'gzkuv'ugr ctcvkpi pqpj wo cp''cpko cnu'htqo 'j wo cpu ctg'j cto hwihqt''cm'ur gekgu0'Kv'ku'kp''cm'ur gekgu dguv'kpvgtguv'y cv'uwej 'dkpctkgu''cpf 'j kgtctej kgu''ctg f kuo cpvrgf ''dgecwug''cm'rkxgu''j cxg'kpj gtgpv'xcnwg0Tkej ctf u''j qr gu''y cv'gpi ci kpi ''kp''etkkecn'cpf gptkej kpi ''eqpxgtucvkqpu''cdqw''cpko cn'ugpvkgpeg'ku cp'ko r qtvcpv'uvgr 'kp''dtgcmkpi 'f qy p''y gug vtcf kkkqpcn'dcttkgtu0

Trends in Existing Literature

Vj g"gzknkpi "dqf { "qh'tgugctej "gzr nqtgu'\j g'tqng"qh xcnvgu. "cwkwf gu "cpf "f ktgev'lpvgtcevkqpu qp"\j g'tgncvkqpuj kr "dgw ggp"j wo cp"cpf "pqpj wo cp"etgcwtgu. ekkl gp"o qpkqtkpi ."cpf eqpugtxcvkqp"r tcevkegu0Vj gtg"ctg"c "xctkgv("qh'vtgpf u gur gekcm("ucnkgpv'vq "hwwtg"tgugctej "qp"\j g tqng"qh'ugpvkgpeg"kp"o qvkxcvkqpu"hqt "dgwgt"vtgcvo gpvqh'y krf nktg0P wo gtqwu'uwwf kgu'j ki j nki j v'\j g ko r qtvcpeg"qh"eqo r cuulqp"kp"j wo cp"cvkwf gu'vqy ctf u y krf nktg. "tgr qtvkpi "go qvkqpcn'xctkcdrgu'cu y g'uvtqpi guv'r tgf kevqt"qh'y krf nktg"o cpci go gpv'qh j qwug'ur cttqy u="cpf ."\j cv'j wo cp"go r cvj { vqy ctf "cpko cnu"cpf "uvtqpi gt"hggrkpi u"cdqwv'ugpvkgpeg o c{ "rgcf "vq"dgwgt "vtgcvo gpv'qh'cpko cnu "Nctuqp"gv'cn0"4238="Eqtpkuj "gv'cn0"423: +0Go r cvj gyke vtgcvo gpv'qh'cpko cnu"gzvgpf u"vq

r gtur gevkxg'*F qrd{.''4242+0F qrd{øu'go r j cuku'qp'go r cyj { 'kp''j gt''uwf { "cpf ''j gt''wug'qh'eqrrgi g uwwf gpwl'cu'r ctwlekr cpwl'ctg' bpi u'y gof 'rkng vq"o kttqt 'kp"qwt 'uwwf {0'Y cmcej "cpf "eqngci wgu cti wg'hqt''yj g'ko r ngo gpvcvkqp''qh'eqo r cuukqpcvg''eqpugtxcvkqp. c'hqto ''qh''eqpugtxcvkqp''kp''y j kej ''cm pqp/j wo cp"cpko cn'uwdlgevu'ctg"\tgcvgf "cu'ugpvkgpvdgkpi u'cpf "ctg"uggp"hqt"\j gkt kpvtkpuke 'xcnwg *Y cmcej "gv'cn0"423: +0'Vj g'cwj qtu'uwf kgf "xctkqwu ecugu"qh'cpko cn'eqpugtxcvkqp"cpf "etksks wg'vj g y c{u'y g{ 'ki pqtg'cpko cn'ugp kgpeg'cpf 'cev'y kj 'cp cpy tqr qegp vtke'ugv'qh'i qcnı'*Y cmcej 'gv'cn') 423: +0'Y j krg'y g'y km'pqv'dg'cpcn(| kpi 'ewttgpv'eqpugtxcvkqp ghqtvu.'y g'y km'dg'kpxguvki cvkpi 'vj g tgrcvkqpuj kr "dgwy ggp"xkgy u"qp"pqp/j wo cp"cpko crlugpvkgpeg cu"kv"tgrcvgu"vq"cwkwxf gu"vqy ctf u eqpugtxcvkqp0O cphtgf q"cpf "eqmgci wgu. 'vj tqwi j "vj gkt cpcn(uku 'qh' uqekqewnwtcn 'xcnwgu 'qp 'y knf nkhg eqpugtxcvkqp. "f ghkpg'xcnvg'u{ uvgo u'vj tqwi j "o cvgtkcnewnwtg. "uvqtkgu. "xcnvg'u{ uvgo u'cpf "o qtg *4242+0'Vj ku'uwxf { 'cuuguugu' yj g'ko r cev'qh'xcnxgu' \qy ctf u pqp/j wo cp'cpko cnu'qp' y krf rkhg eqpugtxcvkqp"dgrkgh0Qwt"uwwf { "y kmluggml\q"uko krctn{ cuuguu'j qy "xkgy u'qp"y krf rkhg"ugpvkgpeg ko r cev'r gtegr vkqpu'qh'y krf nkhg'eqpugtxcvkqp''y tqwi j uvqtkgu. 'r j qvqu. 'cpf ''qvj gt''uwej ''o gf kwo u0'Kp qwt"f cvc"eqmgevkqp"r gtkqf "y g"cko "\q"hquvgt"c"y cto cpf "ceegr vkpi "gpxktqpo gpv"hqt" y g r ct whele cpwilp "qwt "f kwewuwlqp" i tqwr "y j gtg" ij g{ 'y km dg'lpxksgf '\q'\twn{ "gzr rqtg" ij gkt 'ij qwi j wi'cpf hggnkpi u'cdqw'cpko cn'ugpvkgpeg0'Uko krctn('\q'Fqrd{. y g'y krn'gpeqwtci g'r ctvkekr cpvu'\q'r w yj go ugnxgu'lp''yj g''qyj gt''dglipi øu'r nceg''cpf ''\t { ''q'lpygtr tgvcpf ''tgegkxg''yj glit ''gpgti { ''cpf ''go qylqpu0 Y g'y km'r tqor v'y g'uw f { 'r ct klekr cp w '\q''y qwij khwn (tghnge v'w qp 'v gkt 'kp vgt ce klqpu'y kj pqpj wo cp'y krf nkłg'cpko cnu0'Y g'y cpv'\q'ecm'cwgp\kqp vq'\j g'\wpks wg''gpgti g\ke''dqpf '\j cv'ku'\uj ctgf dgwy ggp 'wy q'ugpwlgpv'dgkpi u0'Y g'y km'gpeqwtci g'qwt r ctwlekr cpvu'vq'dtkpi "cp"gxgt"r tgugpv cy ctgpguu'qh'eqpuekqwupguu'yj cv'cm'nkxkpi "etgcwtgu r quuguu0'Y g'j qr g'yj cv'yj ku'j gki j ygpgf cy ctgpguu'ecp'ngcf 'vq'o qtg'o gcpkpi hwrlf kuewuukqp. tghrgevkqp. 'cpf 'eqpvkpwgf 'o wwcm('dgpghkekcn

r ct lekr cpwi'j tqwi j "eqpxgpkgpeg"wo r nkpi ."cu'ij g"tgugctej gtu'uwtxg{gf "cwgpf ggu'iq"cp"cpko cn y gnctg"u{o r qukwo "*423: +0 kp"dqij "uwwf kgu. "r ct lekr cpwi j cf "cntgcf { "f go qpuntcvgf "c"uki pkhecpv kpvgtguv'kp"cpko cni'cpf "cpko cni'y gndgkpi ."y j kej "ko r cevgf tguwnwi "Nctuqp"gv'cn0"4238="Eqtpkij "gv cn0"423: +0 Qwt "uwwf { "y kni'dg"htqo "c"o qtg"o kzgf "dceni tqwpf qh'r gqr ng"y kij "xctkqwu'kpvgtguvu."pqv lwn'nko kgf "\q'r gqr ng"y j q"cntgcf { "uj qy "ur gekcn'kpvgtguvkp"cpko cnu0

Areas for Further Study

Y j kg''y g''tkgtcwtg''qp''y kf rktg'eqxgtu''dqy' 'c'tcpi g qh'uwdvqr keu''cpf 'eqpukf gtcdrg''f gr y lp''ur gekhlec''ctgcu. 'uki pkhlecpv'i cr u'r gtukuv0'Ur gekhlecm(. y gtg'ku''o wej ''vq''dg''uwwf kgf ''qp''y g r gtegr klqp''qh''cpko cn'ugpvkgpeg''d{'j wo cp''dgkpi u.'j qy y ku'ko r cewi'j wo cp/cpko cn'tgrcvkqpuj kr u. cpf ''y j cv'ghlgewi'y ku'j cu''qp''eqpugtxcvkqp''ghlqtvu cpf ''cy ctgpguut0'Nctuqp''cpf ''eqnrgci wguø'cpcn(uku qh''gzr gtkgpvkcnhcevqtu''uwr r qt w''y g''dgrkgh''y cv'gzr gtkgpegu y ky ''y krf rktg''uvtgpi y gp''chtgevkxg''cpf go qvkqpcn'tgur qpugu'vq'y krf rktg''uvko wrk'*Nctuqp. ''gvcr0'4238+0Vj ku''uwrf { ''qr gpu''wr ''cp''ctgc''hqt tgugctej ''qp''y g''tqrg''qh'wpf gtuvcpf kpi ''cpf ''cr r tgekcvkqp qh''ugpvkgpeg''hqt''y g''hqto cvkqp''qh go qvkqpcn'f kur qukxkqpu''cpf ''cvkwrf gu''qy ctf ''y krf rktg0Vj g'y qtm'qh'Eqtpkuj ''cpf ''eqnrgci wgu uko krctn(''etgcvgu'y g''r qvgpvkcn'hqt''hwty gt'tgugctej qp'y j cv'gzcevn(''o qvkxcvgu''r gqr rg''q''eqppgev''q cpko cn'ugpvkgpeg'*423: +0'Y j krg''y g'tgugctej gtu''gzco kpg f go qi tcr j ke''hcevqtu'y cv'lphrwgpeg

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Research Question

Y j cv'o qvkxcvgu'r ctvkekr cpwi'vq"eqppgev'vq"cpko cn'ugpvkgpeg. cpf "j qy "eqwrf "vj ku o qvkxcvkqp"ngcf "vq"dgwgt "vtgcvo gpv'qh'y krf nkhgA"Y g j qr g'vq"cf f "vq"gzkunkpi "rkxgtcwxtg"d { "hkmlpi "vj g i cr u"eqpegtpkpi "vj g"go qvkqpcn'ko r cev'qh'y krf nkhg"kpvgtcevkqp cpf "cevkqpcdng"ghhgevu"vj ku"j cu"qp j wo cp"dgkpi u"vqy ctf u"eqpugtxcvkqp"cpf "y krf nkhg"j cdkxcvr tqvgevkqp0"kf gcm(."y g"y km'kf gpvkh { r cvvgtpu"cpf "vtgpf u"kp"y krf nkhg"kpvgtcevkqpu"vj cvf go qpuvtcvg"ghhgevkxg"y c { u"vq"gpeqwtci g

qwt"r ct wekr cpwø'qxgtcm'gzr gtkgpeg"y kaj "vj g"uwwf {0Dquvqp"Eqmgi g"uwwf gpwu"ctg"wpks wg"kp"vj gkt cdkrkv{ "vq"tghrgev."eqo o wpkecvg."cpf "go r cvj kl g"y kaj qvj gtu0CmlDquvqp"Eqmgi g"uwwf gpwu"ctg tgs wktgf "vq"eqo r rgvg"vj g"Eqtg"Ewttkewnwo "y j kej "hquvgtu etkskecn"vj kpmkpi "umkmu"cpf "vj g"cdkrkv{ "vq eqo r cuulkqpcvgn{ "eqo o wpkecvg"kf gcu0O qtgqxgt."vj g"Iguwkvxcnwgu"r tqo wri cvgf "vj tqwi j qw Dquvqp"Eqmgi g"r rceg"c"uvtqpi "go r j cuku"qp"ugtxkeg vq"qvj gtu"cpf "y qtmkpi "vq"o cm

Data Collection Methods

Retvlekreput'y gtg"kpxkgf "xke"\gzv."goekn"y qtf/qh/oqwj.cpf "uqeken'ogfke"\q"rquv'\jgkt
y ktfrklg"kpvgteevkqput'\q"\jg"Heegdqqmii tqwr 0Retvlekreput y gtg"cungf "\q"\ij ctg"pettevkxgu."r j qvqu.
xkf gqu."qt"cwfkq"hkgu"cpf"r tqor vgf "\q"tghrgev'qp yj g"goqvkqpen'gzr gtkgpegu"qh'\jgkt"y ktfrklg
kpvgteevkqpu0C"eqooqp"dettkgt"hqt"ekkl gp"uekgpeg tgugetej "ku'uwuvekpgf"gpicigogpv'cpf
eqookogpv'qh'retvlekreput"*Rengeq"gv'cn0"4243+0Yg"cko"\q"cfftguu'\jku'ejengpig"d{"qhhgtkpi
ownkrng"rtqlgev'gpvt{"rqkpvu'cu'ygmi'cu'ownkrngyc{u'\q"retvlekrevg"cv'fkhgtgpv'rgxgnu'qh
eqookogpv'kp"\jg"Heegdqqmiitqwr"*Rengeq"gv'cn0"4243+0Gzcorngu'qh'retvlekrevkqp"dg{qpf
rquvkpi"kpenwfg"kpvgteevkpi"ykj"qyjgt"rquvu'\jtqwijrkngu'cpf"eqoogpvu."yevejkpi"hkxg"uvtgco
xkfgqu'jquvgf"d{"\jg"tgugetejgtu."cpf"tghgttkpi"qyjgtretvlekreput'\q"\jg"tqwr0Feve"eqngevkqp
dgicp"qp"Qevqdgt"36."4242"cpf"eqpenwfgf"qp"Crtkri36.42430

Data Analysis

Cp"guugpvkcni'r ctv'qhi'qwt"f cvc"cpcn(uku'o gyi qf "ku'eq/etgcvkqp. y j kej "cmqy u'qwt"uwf { "vq dwkrf "c"tkej "pcttcvkxg"dgw ggp"yi g'r ctvkekr cpwi'cpf yi g'tgugctej gtu" D¾pkuj /Dtgf pkej ."423: +0 D¾pkuj /Dtgf pkej "go r j cuk gu''yi cv'wpeqpxgpvkqpcn'o gyi qf u qh'pcttcvkxg"gyi pqi tcr j { "ctg"kp vgpukqp"y kyj "yi g"pggf "hqt"gyi pqi tcr j ke"tgugctej "vq dg"vcngp"ugtkqwun("cu"c"uqekcn'uekgpeg *D¾pkuj /Dtgf pkej ."r 0'; ."423: +0'Y j krg"{ gv."c"pcttcvkxg dguv'ecr wtgu''yi g"go qvkqpu"gzr tguugf "d{ r ctvkekr cpwi'tgi ctf kpi "yi gkt"y krf nkhg"kpvgtcevkqpu. cpf "ku"o quv'vtwg"vq"yi g"pcwtg"qh'ugpvkgpeg0 Hwtyi gto qtg."qwt"o gyi qf u'hqmqy "cp"kpwkxkxg"cpcn(uku crr tqcej "cu'qrr qugf "vq"cpcn(vlecn'eqf kpi qh'yi g'f cvc0D¾pkuj /Dtgf pkej "chhto u'yi cv'y j krg"ökvku'vgo r vkpi "vq"wtp"uvqtkgu"kpvq"f cvc"cpf f gxcnwg"yi g"cev'qh'f ggr "rkuvgpkpi "cpf "pcttcvkxg"eqpvgo r rcvkqp.ö yi g"r tqeguu"qh'qtf gtkpi "uvqtkgu kpvq"pcttcvkxgu'ku'dguv'i wkf gf "d{"c"s wcnkcvkxg"crr tqcej yi cv'f qgu'pqv'nqug'yi g"go qvkqpu'kp'yi g

r ct wekr cpvzu'uvqt kgu''d{ 'f kuuge wpi ''y go '*D*/pkuj /Dtgf pkej .'r 032.'423: +0Qwt''cpcn{ uku''go r j cuk| gu kpwkskxg''y kuf qo u'y j krg''go r m{ kpi 'tgugctej 'eqpxgpwlqp y j gp''crrtqrtkcvg0

Vj g'f cvc''y cu''cuuguugf ''wukpi ''c''ugtkgu''qh''s wcrkxcvkxg s wgurkqpu''yj cv'eqpukf gt''yj g''go qvkqpu cpf ''ugpvkgpeg''dgj kpf ''yj g''uwdo kwgf ''r j qvqi tcr j u.''xkf gqu. cpf ''cwf kq''tgeqtf kpi u0'S wgurkqpu''yj cv i wkf g''qwt''f cvc''cpcn(uku''kpenwf g<'y j cv''v(r g''qh''y krf cpko criku''uj qy pA'Y j cv'ku''yj g''eqpvgzv''qh''yj g r j qvqA'Y j cv'f qgu''yj g''eqo r qukkqp''qh''yj g''r j qvqi tcr j uc{ "cdqw''yj g''tgrcvkqpuj kr ''dgwy ggp''yj g r gtuqp''cpf ''yj g''cpko cnA'Y j cv'ecr vkqpu''cpf ''uvqtkgu''ctg kpenwf gf A'Y j cv'go qvkqpu''f q''yj g

yj g"vtgcvkqpuu"qp"eqpugtcvkqpcdxqwyj g"go qvnv qp

Cumpi "r ctpf "go gkptqwi j "vj ko gpv'w@ut\$#'gwctgvcmkpi

O gf kc"V{r g

Rj qvq 39

Xkf gq 5

P qpg 3

Eqnrgi g'C wgpf gf

Dquvqp'Eqnrgi g 35

Qý gt 6

Trends

Trend 1: Key words about animal sentience

Dgecwig''uwf kgu'kp''y ku'ctgc''qh'tgugctej 'j cxg'kpxguki cvgf j wo cp''cempqy ngf i go gpv'qh cpko cn'ugpvkgpeg."c''ej qugp''y go g'hqt''cpcn(uku'y cu yi g'wig'qh'yi g'y qtf 'ugpvkgpeg'qt''c'tgrcvgf cempqy ngf i go gpv'qh'pqp/j wo cp''cpko cn'go qvkqp''y kij kp yi g''f guetkdgf 'kpvgtcevkqp0Hqwtvggp."qt 85085' ."qh''yi g''r ctvkekr cpwi'eqo o gpvgf 'qp''yi g''r gtegkxgf go qvkqpu''qh'yi g''cpko cn'qt''cpko cm''yi g{ gpeqwpvgtgf 0'Vj g''uwf { 'y cu''cm quv'gpvktgn('eqo r qugf qh'hgo cng''j wo cp''r ctvkekr cpwi'y j kej ''o c{ eqttgrcvg''vq''yi g''o clqtkx('qh''r ctvkekr cpwi'o cmkpi 'ugpvkgpeg/tgrcvgf eqo o gpwi0Eqtpkij ''cpf eqmgci wgu'hqwpf ''yi cv'hgo cngu'y gtg''o qtg'hkngn(''vq gpi ci g''go qvkqpcm(''y kij ''pqp/j wo cp''cpko cmi *Eqtpkij ''gv'cn0''423: +0J qy gxgt."pq''r ctvkekr cpwi'gzr nkekn(wugf ''yi g''y qtf ''ugpvkgpeg'kp''yi gkt pcttcvkxg0Vj gtghqtg. ''eqo o gpwi'qp''cpf ''tgrcvgf ''vq''r gtegkxgf go qvkqp''cpf ''ur ktkwcn'kpvgtur gekgu eqppgevkqp''y gtg''eqpukf gtgf ''wpf gt''yi g''yi go g''qh''ugpvkgpeg0

Trend 2: Key words about human emotional experience

Vj tgg"qh'vj g"44"r ctvlekr cpvu"*35085' + "y j q"nghv"pcttcvlxxg r quvu"tgr qtvgf "hggrkpi "go r c y {
hqt"cpqt#

j wo cp"lpvgtcevlqpu"y kij "y krf rkhg"cpko cnu"cpf "ij gkt"j cdkxcu0"Vj gtg"y gtg"ugxgtcni'r ctvkekr cpvu"y j q kpf kecvgf "ij cv'ij g{ "hgnv'cr r tgj gpukxg"qt"hgcthwni'cdqwv ij gkt"kpvgtcevlqpu"y kij "y krf "cpko cnu0"Vj tgg r ctvkekr cpvu"qh"yj g"44"vqvcnikpf kecvgf "ij cv'ij g{ "hgnvpgtxqwu"qt"hgcthwni'ctqwpf "cpko cnu"dwi'y q"qh ij g"ij tgg"tgr qtvgf "wnko cvgn{ "j cxkpi "r qukxkxg"hggrkpi u cdqwv'ij g"kpvgtcevlqpu0

Trend 3: Transformative effect of experience

Dgecwug''r tgxkqwu''uwf kgu''uwi i guvgf ''yj cv'r gtuqpcn'gzr gtkgpegu y kyj ''y krf nkhg''j cxg''yj g r qy gt "vq"ej cpi g"j wo cpu) r gtur ge wxgu"cpf "ce wqpu"vqy ctf qy gt "ur gekgu. "vj g"t gugctej gtu kpxguvki cvgf "vj g"vtcpuhqto cvkxg"pcwtg"qh"vj g"r ctvkekr cpvu) gzr gtkgpegu" Nctuqp"gv"cn0"4238= F qrd { ."4242="Ueqw'gv'cr0" 4242+0" Qh'yj g"44" f guetkr vkxg pcttc vkxgu.": "r ct vkekr cpvu*58058" + gzr nkekn ("f guetkdgf" c"\tcpulqto cvkxg"ghlgev'htqo yi gkt "gzr gtkgpeg' y knj "y knf nklg. '9" r ctvkekr cpvu *530B: ' +"Ipenwf gf "pq"tghgtgpeg"\q"c"\tcpuhqto cvlxxg ghhgev"qh"\yj glt "gzr gt lgpeg."cpf "yj g"tgo clplpi 9"r ct vlekr cpvu" 5303: ' +"kpenwf gf "ko r nlekv"t ghgt gpegu vq 'vj g"gzr gt kgpegøu"eqpvt kd wwkqp" vq 'vj gkt "pgy r gtur gevkxg0'Ukz "qh" yi g"gki j v"vtcpulqto cvkxg" gzr gtkgpegu kpxqnxgf "c" j wo cpøu kpvgtcevkqp" y kij "c ur gelgu'y g'r ct klekr cpv'f qgu'pqv'ugg'qt 'kpvgtcev'y kj qp"c"tgi wrct "dcuku0Cu'v jku'tgugctej "y cu eqpf wevgf "kp" yi g"o kf uv'qh" yi g"EQXKF/3; "r cpf go ke." y q qh" yi g"gzr nkekn ("tcpulqto cvkxg gzr gtkgpegu'kpenwf g'tghgtgpegu'vq''yi g'ko r qt vcpeg''qh eqppgevkqp'y kij ''qyi gt'ur gekgu'f wtkpi ''yi ku r gtlqf "qh'luqncvlqp0"Hxg"qh'vj g"gki j v'vtcpulqto cvlxg gzr gtlgpegu'lpenwf gf "gzr nlekv'tghgtgpegu'vq r gtuqpen'cevkqp"\qy ctf "eqpugtxcvkqp0Qpg"\tcpuhqto cvkxg gzr gtkgpeg"j grr gf "c"r ctvkekr cpv'hggn r gtuqpcm('eqppgevgf 'vq'y krf rkhg0"Vj gtg'y cu'cp'qxgty j gro kpi vtgpf 'kp'r ctvkekr cpvwø'gzr gtkgpegu ecwulpi "tghrgevkqp"qp"o wnkur gelgu"eqgzkuvgpeg0"Qh vj g"eqo dlpgf "37"gzr nlekn("cpf "ko r nlekn(vtcpuhqto cvkxg"gzrgtkgpegu."; "kpenvfgf"c"tghgevkqpqp"eqgzkuvgpeg"cpf"vjg"gh

Vj g'9'r ctvlekr cpwi'y j q'f kf 'pqv'tgr qtv'qp''y g'tcpulqto cvlxg'pcwtg'qh'y gkt'y kff nktg'gzr gtkgpegu uj qy gf 'lgy 'eqo o qpcnkkgu0''Vj g'tir gekgu'gpeqwpvgtgf cpf 'inqecvlqpu'qh'y gug'pcttcvlxgu'y gtg xctkgf 0Qpg'r ctvlekr cpv'r qpf gtu'y j { "c'upcr r kpi "wtvug tgwtpu'vq''y gkt "{ctf ''qp''cp''cppwcnidculuu0 oJ gtgøn'o { "yj qwi j vc'o c{dg''uj g''ej qqugu''qwt 'ncy p''dgecwug y g''j cxg''y g''qpn('pcwtcnincy p''kp''y g pgki j dqtj qqf #A'P q''lgtvlxlk gt0P q''r guvlekf gu0P q''cp{yj kpi 05 Cpqyi gt''r ctvlekr cpv'tgo ctmgf ''qp''c ugcnwb'cdktkk("'q''eqgzkuv'y kyj ''j wo cpu''kp''Nc''Iqmc<õ''Kuy co ''kp''y g''y cvgt''cpf ''y cu''j qpgun/{ uwtrtkugf ''d{ ''y g''ugcnwb'nceniqh'j quvlxtkx{ ''cpf ''uggo kpi n{ f kutgi ctf 'hqt''j wo cpu''uy ko o kpi ''kp''uvej enqug''r tqzko kx{ .ö0''Vj g''r ctvlekr cpvu''ctg''cdng''q''cenpqy ngf i g cpf ''tghngev'qp''y gkt''gzr gtkgpegu'y kyj qy gt''ur gekgu ''dw''f q''pqv'tgr qtv'cp{ "gxkf gpeg''qh''c ej cpi gf ''cvkwxf g''qt''r gtur gevkxg''hqmqy kpi ''y g kpygtcevkqp05''qh'y g''9''r ctvlekr cpvu''y cv'f kf ''pqvtgo ctmi'qp''tcpulqto cvkqp''ctg''uwxf gpwi'qh Cpxktqpo gpvcn'Uwf kgu0

Trend 4: Species Type

Qh'y g"44"f guetk vkzg"pcttcvkzgu."35"r quvu"*7; \(\Omega; \) +hqewugf "qp"cp"kpvgtcevkqp"y ky "c
y tgcvgpgf "qt"tctg"ur gekgu"y cv'y g"r ctvkekr cpv'f qgu pqv'eqo o qpn("gpeqwpvgt"kp"y gkt "gxgt { f c {
nklgOVj gug"ur gekgu"kpenvf gf "c"ugc"hqp." j wo r dcemy j crgu. "dgctu." cp"gmm"c"f ggt." 'ugc"wt vrgu. "dkuqp.
o qwpvckp"i qcvu. "c"vgttcr kp." 'ugcnu." 'uy cpu. "cpf "c"wtng{OQh'y j gug"35"r quvu"hgcwtkpi "kpvgtcevkqpu
y ky "tctg"cpko cnu." 8"r quvu"*68087' +"cnuq"gzr nkekn(f guetkdgf "c"vtcpuhqto cvkxg"ghtgev'qp"y j g
r ctvkekr cpv'htqo "y j g"gpeqwpvgt0Qpg"r ctvkekr cpv'uckf y gkt "kpvgtcevkqp"y ky "c"ugc"hqp"tgchhto gf
y gkt "o qvkxcvkqp" 'q"r tqvgev'y knf nklg"cpf "rgcxg"cpko cnu cmpg"ovq"f q"y gkt"y kpi 66"Cpqy gt
r ctvkekr cpv'y cu'tgo kpf gf "qh'y g"ko r qtvcpeg"qh'eqpugtxcvkqp cpf "y g"eqgzkuvgpeg"qh"j wo cpu'cpf
pqpj wo cp"cpko cnu'chgt"y gkt "kpvgtcevkqp"y ky "uy cpu0O qtgqxgt." 'yy q"r ctvkekr cpvu'y cv'y tqvg
cdqww'y gkt "kpvgtcevkqpu'y ky j" yw r dcemiy j crgu"f guetkdgf y g"gpeqwpvgtu'cu'o cmkpi "y go "tghrgev
qp"y g" y wo cp"ko r cev'qp"y g'gpxktqpo gpv'cpf" y g"etwgnvtgcvo gpv'qh'y j crgu"kp"ecr vkxkv{."cpf

f guetklegf "hegrhpi "kpur ktgf "kq"eqpvkpwg" ij gkt "eqpugtxcvkqp" ghtqtwt0Qh" ij g"; "r quwi" hecwtkpi kpytcevkqpu" y kjj "o qtg" eqo o qp" cpko cmr." 4" r quwi" *44044' + cmq" f guetkleff "c" tcpulqto cvkxg" ghtgev qp" ij g"r ctvlekr cpvlttqo "ij g"gpeqwpvgt0V j wu "pcttcvkxgu cdqw/gpeqwpvgtu" y kjj "tctg" cpko cmi y gtg 4029" vko gu"o qtg" hmgn("q" f kuewur c" tcpulqto cvkxg ko r cev' ij cp" gpeqwpvgtu" y kjj "eqo o qp" cpko cm0 c0 35" qhi ij g"44" r quwi *7; (2; ' + "cmq" lpenwf gf" c" tghtgevlqp qp" eqgzkuvgpeg. "ij g" j wo cp" ko r cev qp" ij g" uwtxkxcriqh" ij g" ur gekgu "cpf kqt" ij g" ghtgevlqh" j wo cp" qt "pqp j wo cp" cpko cmu" r tgugpeg cu" c" r quukltng" f kuwtdcpeg" vq" ij g" qi gt0Qh" ij g"6" r quvu ij cvl qewugf" qp" eqgzkuvgpeg. "cml qwt *322' + "y gtg" eqppgevgf" 'vq" lpvgtcevlqpu" y kjj "tctg" cpko cm0 kp" qpg" r quv'cdqwv'o qwpvckp i qcvu "ij g" r ctvlekr cpv' uj ctg" ij ctg" ij g" uco g" gct j" y kjj ij go 6" kp" cpq ij gt" r quv "c" r ctvlekr cpv uj cvl kpvgtcevgf" y kjj "dkuqp" gzr rckpgf" 'ij cv' ij g" gpeqwpvgt o cf g' ij go "oi j kpm' ij cv' eqgzkuvgpeg y kjj "cpko cm' ku" r quukltng 6" Qh' ij g" s" r quvu' ij cvl" gcmvy kjj "ij g" j wo cp" ko r cev' qp" pqp j wo cp cpko cm." 5" qh' ij g' 8" *72' +" r quvu' y gtg" eqppgevgf" 'vq tctg" ir gekgu0Qpg" r quv'cdqwv'ugc" wu vgu

tgo kpf gf "c"r ct kkekr cpv"cdqwd oj g"ko r cev y cv" wo cp

cpko cnı'uj ctkpi "c'ur ceg0J qy gxgt."qh'yj g'35"r quxu'yj cv'tghrgevgf "qp"yj gug"vqr keu'cu'y gm'cu eqgzkuvgpeg."; "r quxu' 8604: ' +"y gtg'htqo "kpvgtcevkqpu y kyj "tctg"cpko cnu0

Trend 5: Composition of Photograph

 $\label{eq:conditional} J~qy~"f~lf~"r~tqz~lo~kx{\ "chlgev"j~qy~"yj~g{\ 'lhgnv'cdqw''yj~g"cplo~cnAF~lf~'kv'gxqng'tgur~gev.''hgctA}$

c0 Yqqfrgengt < J g'fkfpøv'uggo "\q"okpf"og"uvcpfkpi "uq enqug. "swkgvn("oguogtkigf"yjkng
y cvejkpi "jko"jcrrkn("yqqfdqtkpi "cyc{="jg"uggogf"tcvjgtrtqwf"\q"ujqy "qhh'jku
rqygt/rgenkpi "cdkrkkgu0Khgnv"vjcv"vjku"yqqfrgengtcewcm("rkngf"vjg"cwfkgpeg. "uq"K
hqmqygf"jko"cpf"hknogf"jko"yjkng"pcokpi"jko"Ycngt0

cewcst & cbkocudd
cemcst & cbkocudd

- i0 õVj g"o quv'tgo ctmcdng"gzr gtkgpeg"y cu'y kɨj "c"i tqwr "qh'y j cngu'y j kej "eqo g y tqwi j "qwt"y cvgtu"kp"O ctej "cpf 'Cr tkn'gcej "{ gct0'Uggkpi yi gug'j wi g"cpko cnu tgcm{ "r wu'j qy "uo cm'y g"ctg"kpvq"r gtur gevkxg0i
- kło őVj gtg'y g'f tkhngf 'y j kng'dgkpi 'uwttqwpf gf 'd{ 'I wo r dcemu hqt' vj tgg'j qwtu0 o
- g0 Ugent'ōCv'ij ku'eqxg''qp''j g''y cvgt."o ep{"ugeni'i cyj gtgf ctqwpf "vq'uwpdcyj g0'Kuy co "kp''j g y cvgt "cpf 'y cu'j qpguvn("uwtr tkugf "d{"vj g'ugenuø'ncemqh'j quvkrkv("cpf "uggo kpi n("f kutgi ctf hqt"j wo cpu'uy ko o kpi "kp'uwej "enqug''r tqzko kv(0'Vj g'ugenu y gtg'uwpdcyj kpi ."uy ko o kpi . enko dkpi "qp''y g''tqemu."gplq{kpi "vj g'uwp."gveí ""Ky cu uvcpf kpi "uwr gt "enqug''vq''y q''ugenu y j q''uggo gf "vq'i gv'kp''cp''cti wo gpv'y kyj "gcej "qvj gt"{gvf kf "pqv'gxgp''dcv'cp''g{g''cv'o g0 Rtgw("pgcv'j qy "ceewuvqo gf "cpko cni'ecp''i gv'\q''dgkpi pgct''j wo cpuö
- Dwpp{<\disk'iy cupøv'o qxkpi "cv'cm'gxgp"y j gp"Keco g"emug vq"kv."cpf "kv'y cupøv'drkpmkpi lkøu g{g"y cupøv'o qxkpi 0'Kdgi cp"vq"i gv'y qttkgf "cpf "eqpukf gt vj g"r quukdkrkv{ "vj cv'vj g"dwpp{"y cu htq| gp"vq"f gcvj ."y j kej "uectgf "o g"cpf "o cf g"o g"hggnuq"uqtt { "hqt "kv0'K'y qwrf "pqv'eqpukf gt o {ugrh"cp"cpko cn'mxgt "d{ "cp{"o gcpu."cpf "pqto cm{ co "o qtg"chtckf "vq"i gv'emug"vq"cp{ y krf "cpko cnv0'Rgtj cr u"vj g"hcev'vj cv'vj ku'dwpp{"y cu uq"f ghgpugrguu'ku"y j cv'o cf g"o g"pqv hggrl'yj tgcvgpgf "d{ "kv'dw'tcvj gt"vj kpmkpi "qh'y c{u vq"tt{"vq"j grr "kv0"o
- i 0 F ggt < Knqngf "qwulf g'\j g'\y lof qy "qh'o { "j qwug'cpf ucy "c'f ggt "uvctlepi "cv'o g'cpf uvqo r lepi 0 Kl'y cu'c't gcm ("co c | lepi "gzr gt legpeg '\q'ugg yj g'f ggt 't geqi pl\ g'cpf 'lepvgt cev'y leyi o g0 i
- j 0 Dkuqp<"õQp"o {"y c{"y gtg."Kuvqrrgf"o {"ect"vq"vcng c"nqqm'cv"y ku"i tqwr "qh'dkuqp0"K</p>
 y cvej gf "y go "hqt"c"y j krg."cpf "gplq{gf "dgkpi "kp"y gkt rtgugpeg0"Vj g{"f kf pøv"uggo "vq
 pqvkeg"o g."cpf "y gpv"cdqwv"y gkt"f c{"i tc| kpi "cpf"y cmkpi ctqwpf 06

- I qcukčõKi qv'c'dkv'pgtxqwu'cu'\j g{ 'eco g'emqug'\q'\wu'\q'etquu'\j g'r c\j 0'Vj g{ 'f kf 'pqv'uggo vq'o kpf '\j g'hcev'\j cv'\j gtg'y gtg'r gqr ng'cm'cmpi '\j g'r c\j ."cu'mpi 'cu'y g'f kf 'pqv'i gv'\qq emqug\overline{0}
- Ugc"Nkqp<öQp"qpg"gzrgfkkqp"yg"gpeqwpvgtgf"c"ugcnkqp"urtcyngf"qp"c"dgpej "tgurkpi0"K ucv'qp"yg"gdgpej "qrrqukvg."cdqwv8"hggv'cyc{0KV'mqnngfwr."kfgpvkhgf"og"cu"c"pqp/yjtgcvcpf"ygpv'dcem'vq"urggr0Keqwrfpøv'jgr"dwv'pqvkegc"rgtuqpcnkv{"vq"jko."hkng"jqy"{qwwhggnyjgp"{qwwtg"pcrrkpi"qp"yjg"eqwej"cpf"uqogqpg"ycmukp"uq"{qwwimqqniwr"dghqtg"itworkn{iq"dcemivq"upqq|kpi06
 - $67067' \quad \text{"qh'r quvu't ghgt gpegf" j wo cp''r tqz ko kv{ "vq'y knf nkhg ur gekgul<math>0$ Ugx gtcn'qh'y gug'r quvu

hlpf kpi u'd { "kmvo kpcvkpi "vj g'xgtdci g'vugf "vq'f guetkdg'pqp/j wo cp'cpko cn'go qvkqpu'cpf 'ugpvkgpeg cpf "tgkphqtekpi "vj gkt "tguwnui tgi ctf kpi "c"eqttgrcvkqp dgwy ggp hgo crgu cpf "go qvkqpcn eqppgevkqp y kj 'pqp/j wo cp'cpko cnu'*Eqtpkuj 'gv'cn0'423: +0Hqwtvggp qh'vj g'vy gpv{/wy q'r ctvkekr cpvu'y tqvg cdqwl'y g'r gtegkxgf "go qvkqpu"qh'y g'cpko cn'kp"uqo g ecr cekv "kpf kecvkpi "cp"cempqy ngf i go gpv'qh pqp/j wo cp"cpko cn'ugp kgpeg0'Kp"qyj gt"y qtf u. "o qtg"yj cp j cnh'qh'yj g'r ct klekr cp u kpen wf gf eqo o gpw'tgrcvkpi "vq"cpko cn'ugpvkgpeg"y j gp"cungf "vq uj ctg"c"pcttcvkxg"cdqw'c"y krf rkhg kpvgtcevkqpOVj gug'r gtegkxgf "go qvkqpu"tcpi gf "õecno ö vq"õci i tguukxgö"cpf "vj g'r quvu"kpenwf gf y qtf u'uwej "cu"gzekgf. "tgrczgf. "ht wuxtcvgf. "wpr j cugf. eqpvgpv0Qh"vj g"r quvu'vj cv"kpenwf gf "vj gug ng{y qtf u'cpf 'ugpvko gpvu.''y g'ur gekgu'qh'y g'cpko cntcpi gf 'htqo 'mecn'dcem{ctf 'dgkpi u'vq kpygtpcykqpcn'tctg'ur gekgu'kpf kecykpi 'yj cy'ur gekgu rkngn('j cf 'pq'ko r cev'qp'y j gyj gt 'qt 'pqv'yj g r ct wkelr cpv'kpenwf gf "eqo o gpvu'qp" ugpvkgpeg0O cp{ "qh yj g"ur gelgu'ctg" hqwpf "kp" yj g" Wpkgf "Uvcygu. dw'nqecvkqpu''cnuq''kpenxf gf ''Uy k\| gtrcpf .''Dgto wf c. Dtc | kn''cpf ''y g'I crcr ci qu0P qpg''qh''y g r ct lkekr cpvu."j qy gxgt. "wugf "'y gt'y qtf "ugp lkgpeg "kpf kec lkpi y cv'r gt j cr u 'y g{ "gzr gt kgpeg "cpko cn ugp kgpeg'y kj qw'j cxkpi 'rgctpgf 'cdqw'y g'hqto cneqpegr v0F qml ('cti wgu'hqt'y g'gzr cpukqp'qh gpxktqpo gpvcn'gf vecvkqp'ur gekhecm('tgrcvgf 'vq'go r cyj { cpf 'cpko cn'ugpvkgpeg'y j kej 'y g'cnuq tgeqo o gpf "cu"o cp{ "r ct/ke/kr cpvu"y gtg"pqv"cu"y gmlkphqto gf qp"eqpugtxc/kqp"cpf "vj g"go gti kpi nksgtcwtg"qp"ugpvkgpeg"*Fqnd{"gv"cn0"4242+0"Gf wecvkqp ur gekhke"\q"vj ku"\qr ke "dgkpi "i kxgp"r tkqt"\q eqpf wevkpi "c"uwf {"uwej "cu'
iy ku'o c{"j cxg'ko r nkecvkqpu qp"t guwnxu'cpf "vgto kpq
nqi {"wugf 0

Trends in human emotion

Vj g"f cvc"eqmgevgf "uj qy u"vj cv"j wo cpu"gzr gtkgpeg"c dtqcf "tcpi g"qh"go qvkqpu"y j gp kpvgtcevkpi "y kyj "vj g"tkxgu"cpf "ugpvkgpv"ur ktku"qh y krf rkhg"cpko cm0"Y j gp"r ctvkekr cpvu"tgr qtvgf hggrkpi u"qh"go r cvj { "hqt"pqp/j wo cp"cpko cm1"vj g{ "hgmvy gtg"uvtwi i rkpi "kp"uqo g"y c{. "vj g{ o gpvkqpgf "j qy "vj g"cpko cm1"uvtwi i rg"o cf g"vj go "vj kpmetkkecm{ "cdqwv"j wo cp"cpf "pqp/j wo cp

cpło crilipygtceylqpu'cpf lqt "eqpugtxcylqp0"Vj ku'hlpf kpi "tghrgewi'j g'y qtm'qh' Y cmcej "gy'cn0"423: + kp"y j kej "'y g'cwj qtu'uvcyg''y cy'uwo o qpkpi "eqo r cuulqp ku'ko r qtvcpv'y j gp"'y kpmkpi "etkkecm("cpf gyj kecm("cdqww'eqpugtxcylqp0"Kpygtguykpi n(."yj g'eqo r cuulqp ugxgtcn'qh''y g''r ctylekr cpwu'hgny kpxqngf "c'ugpug'qh'f ww("'q"eqpugtxg''yj g''rkxgu''cpf y gm/dgkpi "qh'y knf rkhg''cpko cm0"Vj g''o clqtkv("qh r ctylekr cpwu''gzr tguugf "r qukykxg''hggrkpi u'kp"'yj gkt pcttcykxgu''tgeqwpykpi "'yj gkt "gzr gtkgpegu''y kyj y knf rkhg''cpko cm0"Vj ku''ytgpf "ku''gzekykpi "dw''pqv''pgeguuctkn(uwtr tkukpi 0'O qtgqxgt. "uwej "hlpf kpi u chlkto "yj cy'ekyk gp"uekgpeg''i tqwr u''r tqxkf g''go qykxg gzr gtkgpegu''yj tqwi j "gf wecykpi "r ctylekr cpwu''qp ko r qtycpy'gpxktqpo gpycn'yqr keu' Rengeq''gy'cn0"4243+0

Trends in Transformative Narratives

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gzrgtkgpegu'y kj "y krf rkhg"j cxg"ij g'cdkrk{ "'q"o qvkxcvg j wo cp"cevqtu''qy ctf "go rcvj gvke"cevkqpu
vqy ctf "y krf rkhg"cpf "chhgevkxg"cpf "go qvkqpcritgur qpugu vq"y krf rkhg"uvko wrk*Nctuqp"gv'cri)"4238=
Fqrdl{."42420Nctuqp"cpf "eqrngci wgu'hqwpf "j cv'gzrgtkgpegu y kj "j qwug'ur cttqy u'r qukskxgn/
chhgevgf "rctvkekrcpvai'tgcvo gpv'qh'ij g'ur gekgu."y j kej ku'uwrrqtvgf "d{"vj g'qxgty j gro kpi "rqtvkqp
qh"gzrgtkgpegu'vj cv'qwt "uwrf { "hqwpf "q"dg"rctvkewctn/ vtcpuhqto cvkxg0"Fqrd{ "hqwpf "vj cv'y tkkpi
cp"guuc ('htqo "vj g'r gtur gevkxg'qh'cp"cpko crivj g{ "j cf rtgxkqwun/ "qdugtxgf "eqpvtkdwgf
uki pkhecpvn/ "q"vj gkt "gpxktqpo gpvcn'gf wecvkqp"cpf go rcvj gvke"eqppgevkqp"vq"cpko cru'*Fqrd{.
4242-40Qwt 'uwrf { "eqpvtkdwgu'vq"Fqrd{ au'y qtmid{ "uj qy ecukpi vj g"rqy gt "qh'gzrgtkgpvkcn'tghrgevkqp
qp"j wo cpan'eqpegrvkqpu'qh'cpf "eqppgevkqpu'y kj "qvj gt ur gekgu0Hkhnggp"qh'vj g''44'*8: 08: ' +
rctvkekrcpvu"gksj gt "ko rnkekn/ "qt"gzrnkekn/ "tghgttgf vq"vj g"tcpuhqto cvkxg"pcwtg"qh'vj gkt "y krf rkhg
kpvgtcevkqp. "uwi i guvkpi "vj cv'kpetgcugf "htgs wgpe{ "qh j wo cp/y krf rkhg"kpvgtcevkqpu"j cu'vj g'r qvgpvkcn
vq'ko rtqxg"vtgcvo gpv'qh'qvj gt "ur gekgu0""Rctvkekrcpv38au'uvcvgo gpv'ecr wtgf "vj g'ugpvko gpv'qh
o cp{"qh'vj g'i tqwrau'o go dgtu-čoVj g{ "y gtg'xgt{ "ecro cpf "uggo gf "s wksg'eqpvgpv!vuvv'j cpi kpi "qw

qp"yj g"o qwpvckp0"Vj ku"gzr gtkgpeg"o cf g"o g"tgcrk g"yj cv"j wo cp"dgkpi u"eqgzkuv'y kyj "cpko cru"cu"y g uj ctg''y g'uco g''gctyj ''y kij ''y go 0'Kp''r ctvkewrct. 'tghgtgpegu vq''eqgzkuvgpeg''y gtg''j ki j n(''r tgxcngpv0 Vj ku'o c{ "dg'f wg'\q'j wo cpøu'f qo kpcpeg'kp'\j g'pcwtcny qtrf . "qhvgp'hgcf kpi '\q'ugr ctc\kqp"qh ur gelgu0"Y j gp"j qo q'ucr lgpu'ctg"gpeqwtci gf '\q'lpvgtcev y kij "qvj gt 'ur gelgu'lp'\j gkt '\{r kecn gpxktqpo gpv."yj g{ "ctg"cdrg"\q"f geqpurtwev"yj g"f qo kpcpvpcwtg/uqekgv{ "kf gqrqi kecn"f kxkf g0 Cenpqy ngf i kpi 'vj g'xcnwg'qh'o wnkur gekgu. 'cu'kpvtqf wegf d{ 'cwj qtu'Mktmug{ 'cpf J gro tglej *4232+: "kp"qvt"uj ctgf "gpxktqpo gpv'ku"c"etvekenuvgr "vqy ctf u"lvuv"r tgugtxcvkqp" "Mktmug{ cpf "J gm tgkej ."4232+0"Cp"qxgty j gm kpi "o clqtkx{ "qh yj g"gzr nkekn{ "\tcpuhqto cvkxg"gzr gtkgpegu qeewttgf "dgw ggp"j qo q"ucr kgp"cpf "c"ur gekgu"yj g{ "kpvgtcevy kij "tctgn{0"Vj ku"o c{ "uwi i guv"yj cv ur gelgu'lpvgtcevlqpu'ctg'o qtg'r qy gthwrly j gp''y g{ "eqpvtcuv v{ r lecrllpvgtcevlqpu0"Hqt "gzco r rg. Rct wekr cpv'4'y tqvg'cdqwv'y gkt "gzr gtkgpeg'y kyj "j wo r dcemy j crgu-"ŏVj g'f c{ "y cu'qpg''Ky km htgxgt'tgo go dgt'y kij ''j g'\tcpuegpf gpv'uqwpf u'qh'y j crgu dtgcej kpi 'pgctd{ ''cpf ''j g'tgcrkx{ ''qh y j cv'y g)xg"f qpg'vq'vj gug'y cvgtu'ukpmkpi "kp.ö0"Vj g r ctvkekr cpv'tgr qtvgf 'vj cv'vj g"gzr gtkgpeg'j cf 'c f ktgev'ko r cev'qp''y gkt'y qtm'cpf 'eqpvtkdwkqp''vq''eqpugtxcvkqp kpkkcvkxgu0Cff kxkqpcm{.'ej ctkuo cvke gzr gtkgpegu'y ky "cpko cnu'o c{'j cxg'y g'r qygpykcn'y dg'o qtg'ytcpulqto cykxg0"Rctylekr cpy'33 eqppgevgf "y kij "c"f ggt <õKi'dtqwi j v'o g"emugt "vq"y krf rkhg cpf "Khgnv'o qtg"eqppgevgf O'Kpuvgcf "qh'Iwuv qdugtxkpi "vj ku"cpko cn'htqo "vj g"kpukf g. "Ky cu"cewcm(o cmkpi "g{g"eqpvcev"cpf "dgkpi cempqy rgf i gf "d{" 'yj ku'f ggt06'J wo cpu'o c{"dg"o qtg"eqppgevgf cpf "o qvkxcvgf "vq"r tqvgev'ur gekgu yj cv'gzj kdkv'j wo cp/nkmg'hgcwtgu0"Vj g'tguwnu'uj qy yj cv'yj gug'kpvgtcevkqpu'ctg'ko r qtvcpv'hqt lpvtqf welpi "o wnkur gelgu"eqppgevkqp"cpf "ugpvkgpeg0 Vj ku'uvwf { "y cu'ur gelkhecm('kpvgtguvgf 'kp'vj g głłgev'qh'y gug'kpygtcevkqpu'qp'r gtur gevkxgu'qh'eqpugtxcykqp=j qy gxgt. 'qpn('hkxg''gzr gtkgpegu'j cf 'c f ktgevn('r qukkkxg'ko r cev'qp' y g'r ct klekr cpvøu'eqpugtxc klqp kpkkkc kxgu0Vj gug't guwnu'uwi i guv' y cv yj gtg'ku'c'ecwucn'ghhgev'qh'y krf nkhg'kpygtcevkqpu qp'j wo cpøu'r gtur gevkxgu'qp. 'go qykqpu'uj ctgf 'y kj.

tgugctej 'hqto cv'etgcvg''cp'kpvgtcevkxg''cpf ''o gcpkpi hwn'gzr gtkgpeg'hqt''yj g'r ctvkekr cpvu. 'kv'ecp''dg kpetgfkdn("tcpuhqto cvkxg"hqt"vjg"tgugctejgtu"cu"Tkejctfuqp *4223+"jkijnkijvu"cpf"fkuewuugu"cv rgpi yj 'kp'j gt'y qtm0Cf f kkqpcm(.'wukpi 'c'pqp/tcpf qo eqpxgpkgpeg'uco r rg'etgcygf 'c'f kxgtug r ct wekr cpv'dcug0'Vj g'r ct wekr cpv'r qqrlku'eqo r qugf qh'cm'ci gu'qxgt''yj g''ci g''qh'3: .''dqyj ''eqmgi g cpf "pqp/eqmgi g"uwf gpvu."cpf "c"o kz "qh"Dquvqp"Eqmgi g cpf "pqp/Dquvqp Eqmgi g"eqo o wpkx{ o go dgtuOJ cxkpi "c"f kxgtug"i tqwr "qh'r ctykekr cpvu"r tqxkf gf c"y kf g"tcpi g"qh'kpvgtguv'kp"y krf nktg. r gtur gevkxgu. "cpf "gzr gtkgpegu"y kij "y krf rkhg0Wukpi Hcegdqqm"cu"yj g"ej qugp"r rcvhqto "hqt eqpf wevkpi "'y ku''t gugctej "cmqy gf "'y g''r ctvkekr cpvu vq'hquvgt "eqppgevkqpu''y kyj "gcej "qvj gt "cpf "'y g tgugctej gtu'kpuvgcf "qh'dgkpi 'drkpf '\q'y j q'\j g'qyj gt r ct\kekr cpvu'y gtg0'Vj ku'\vpks wg'qprkpg r ncvhqto "r tqxkf gu'c"pgy "eqpvtkdwkqp"\q"eqo o wpkv{ dvkvf kpi "kp"eqpf wevkpi "gyj pqi tcr j ke. pcttcvkxg'tgugctej 0'Vj g'tgugctej gtu'r quvgf 'gf wecvkqpcnxkf gqu'vqy ctf u'vj g'gpf 'qh'vj g'f cvc eqmgevkqp"r tqeguu"vq"kphqto "yj g"o go dgtu"qh"yj g"i tqwr qh"yj g"tgcuqpu"hqt"yj g"tgugctej "cpf gzr rckpkpi 'mg{ "eqpegr vu'kp' vj g''pqp/j wo cp''cpko cn't gugctej ur ceg0'Vj ku. "cmpi 'vj kj 'vj g''kpenwukqp qh'r gtuqpcn'pcttcvkxgu'kp''y g'o cpwuetkr v'cmqy gf ''y g tgugctej gtu'vq''eq/etgcvg''y ky ''y g'r ctvkekr cpvu cpf "gcej "qvj gt "vj tqwi j "vj g"eqpvtkdwkqp"qh"r gtuqpcncpgef qvgu0"Ukwcvkpi "vj g"tgugctej gtu"y ky kp yj g'pcttcvkxg'ur ceg''cu''qr r qugf ''vq''c''r wtg''qdugtxcvkqpcncpf ''tgkvgtcvkxg''tqrg''ku''y j cv'o cmgu pcttcvkxg'tgugctej 'cpf 'gyj pqi tcrj { 'wpks wg'cu'pqygf d{ 'D³/pkuej /Dtgf pkej '*423: +0'Y j cv'ugwu'qwt uwf { "cr ct v'ku' vj g'eqp vt kd wkqp"qh'q wt "xqkegu'kp" vj g tgugctej "ur ceg' vq"gf wecvg. 'kphrwgpeg. "cpf go qvg"cmpi ukf g"r ctvkekr cpvu"kp"vtwg"ugpvkgpv"hqto 0Vj ku'uvwf { "y cu"ncti gn("cp"qtki kpcn"tgugctej o gyj qf "f guki p"y j kej "cmqy gf "yj g"t gugctej gtu"\q"\ckrqt yj g"r t qeguu"\q"\ur gekhke"f gukt gf "qweqo gu cpf 'ko r necvkapu'hat 'y g'tgugctej gtu. 'r ctvkekr cpvu. cpf 'ncti gt'hkgrf 'ah'y krf nkhg'tgugctej 0

Limitations

Y j krg''y g'f guki p''qh''y ku''uwxf { "qhhgtgf "o cp { "dgpghku''\q''y g'tgugctej .''y gtg''ctg''ugxgtcn cur gewi'yi cv'o c{ "nko kv'yi g'cdkrkx{ "\q"hqto "f ghkpkxkxg"cpf "i gpgtcnk cdrg"eqpenxukqpu0"Cnyi qwi j gz vgpukxg "gh'qt vu'y gtg' vcmgp 'vq' kpxkg' kpvgtguvgf r ct vke kr cpvu'vq' vj g'i tqwr. 'vj g'uk g'qh' vj g'uco r ng y cu'uqo gy j cv'uo cm'y kj "qpn("44"qh'64"\qvcn'j wo cp r ct kekr cpvu'uj ctkpi '\j gkt 'gzr gtkgpegu'y kj yj g'i tqwr 0"Vj g'uo cm'ukt g'qh'r ctvkekr cpwi'cmqy gf hqt'o qtg"gzvgpukxg"cpf "kpenwukxg"cpcn(uku'qh pettevkxgu="j qy gxgt." vj g"uco r ng"o c{"pqv"dg"tgrtgugpvevkxg qh"vj g"i tgevgt"j wo cp"r qr wnevkqp0 Cf f kklapcm(."vj g'uco r rg'y cu''qxgty j gro kpi n('hgo crg. y kj "qpn(''qpg'o crg'r ctvkekr cpv0"'Vj g'xcuv i gpgtcnk cdrg'\q'hgo crg'eqnrgi g'uwf gpvu0Kp'oKpenwukxgpguu cpf 'Fkxgtukx ('kp'Ekxk gp'Uekgpeg.ö Rcrgeq"cpf "eqngci wgu'uxtguu'y g'tqrg"qh"ekkt gp"uekgpeg kp"r tqf wekpi "mpqy ngf i g."y j kej 'y g."cu tgugctej gtu. "etgcvg" vj tqwi j "qwt 'htco kpi "qh'qwt 'pcttc kxgu cpf "vj g'r ct kekr cpvu" y g'kpenwf g'*Rcrgeq gv'cr0'4243+0'Kp''y g'r tqeguu'qh'qwt'tgugctej. "qwt i tqwr''j cu'go dtcegf 'uwdlgevkxg''gzrgtkgpeg= j qy gxgt. 'kk'ku'ko r qt vcpv'\q'tgeqi pk g''vj cv'qwt 'kf gpvkv{ cu'hgo crg''eqnrgi g''uwf gpvu''eqpvtkdwgf ''vq''c rguu'yj cp'kpenvukxg'uco r rg0'Ncuvn(.''yj g''qr gp''gpf gf pcwtg''qh''yj g''r tqo r v''ngf ''vq''f khhgtgpegu'kp eqpvgpv."rko kklpi "vj g"tgugctej gtøu"ecr cekv{ "hqt"f ktgeveqo r ctkuqp"qh"r ctvkekr cpv"gzr gtkgpegu0

Implications

Vj tqwi j qww'qwt''uwwf {."qwt'kpvgpvkqp''y cu''vq'hqewu''qp eqppgevkpi "r gqr rg''ctqwpf''y g''kf gc''qh r tqvgevkpi "qwt''uj ctgf "gpxktqpo gpv0'Y g''cko gf "vq''kpunkmcp"go qvkqpcn''cr r tqcej "vq'tghrgevkqpu''qp y krf nkhg''kpvgtcevkqpu."cpf "d{"uq''f qkpi ."uj gf "rki j vqp''y g'tgrcvkqpuj kr "dgvy ggp''r ctvkekr cpvuø wpf gtuvcpf kpi "qh'pqp/j wo cp''cpko cn'ugpvkgpeg''cpf "vj gkt qr kpkqpu''qp''eqpugtxcvkqp''cpf dkqf kxgtukv{0'Dcugf "qp"qwt'tguwnu."kp"y j kej "r ctvkekr cpvu tgcf kn{"uj ctgf "c''y kf g''xctkgv{"qh vj qwi j vhwri'pcttcvkxgu''cdqww'yj gkt "gzr gtkgpegu'y kyj y knf nkhg''yj cv'go dtcegf ''yj gkt "go qvkqpu''cpf

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htgs wgpvn{"eqo o gpvkpi "cpf "hkmkpi "r quvu."r tqxkf kpi pgy "r tqo r vu"qt"qyj gt"eqpvgpv\tgi wrctn{."wukpi oNkxgö"hgcwtgu"qt"qyj gt"hcegvu"qh"yj gug"uqekcn'pgw qtmkpi r rcvlnqto u"y qwrf "dg"yj g"o quv'uweeguuhwn uvtcvgi kgu"\q"uwuvckp"c"mpi /vgto "cpf "vki j vmpkv'eqo o wpkx{ ctqwpf "vj gug"kf gcu0

References

- D3/pkuej /Dtgf pkej ."Dtki kwg0\$Y tkukpi "yj g'Gvj pqi tcr j ke Uvqt {<Eqpuvtwevkpi "Pcttcvkxg"qwb"qh Pcttcvkxgu\$"Hcdwrc."xqr07; ."pq03/4."423: ."rr 0': /480 j wr uvllf qk0qti 13208737 lbcdwrc/423: /2224
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- Eqpvtgtcu. "Tcpf qr0"423; +0Vj g'Dtqngp'Gvj pqi tcr j {<Nguuqpu'htqo "cp'Cro quv'J gtq0Qualitative Sociology. 42*4+:'383/39; 0
- Eqtpkıj .'C0"Y knqp.'D0'Tcwdgpj gko gt.'F0"('O eI tggx {. R0*423: +0F go qi tcrj keu'Tgi ctf kpi Dgrkgh'kp'P qp/J wo cp'Cpko crl'Ugpvkgpeg'cpf 'Go qvkqpcn Go r cyj { 'y kyj 'Cpko cnk'C'Rkrqv Uwf { 'co qpi 'Cwgpf ggu'qh'cp'Cpko crl'Y grhctg'U{o r qukwo 0 *Animals*, 8.'0f qk≤ 32055; 2 kpk 322396
- Fkc|."Ucpf tc06WP "Tgr qtv<P cwtg)u"Fcpi gtqwu"Fgenkpg)Wpr tgegf gpvgf)="Ur gelgu"Gz vkpevkqp
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 y y y 0vp0qti luwuvckpcdrgf gxgrqr o gpvldrqi 1423; 127 lpcwtg/f genkpg/wpr tgegf gpvgf/tgr qtv10
- Fko gt."O C."Keppctkrrk"H"Vtk"CP."I ctuj grku."FN. Ectvgt."PJ 0Ctvkhleken'pki j v'rki j v'j grr u'ceeqwpv hqt"qdugtxgt"dkcu'kp"ekkl gp"uekgpeg"o qpkqtkpi "qhcp"gzrcpf kpi "reti g"o co o crir qr wrcvkqp0 I0Cpko 0Geqr04242="22<"36"350 j wr u<a href="https://doi.org/10.1007/10.100

- Fqrd{."P 0*4242+0P qpj wo cp"cplo cni"cpf "y g"hwwt g"qh"gpxktqpo gpvcn"gf wecvkqp<"Go r cy { "cpf pgy "r quukdkkkgu0Journal of Environmental Education. 50*668+."62566370 j wr u188:9633
- Icpg'I qqf cm'Kpukwwg'P gy '\ gcrcpf 0\$Cplo cn'Ugpvkgpeg0\$. F ge'3; .'423; .

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- O cphtgf q. 'O (10' Vggn 'VONO'F qp'Ectmu.'COY 0' Uwrkxcp. N0'Dtki j v.'COF 0'F kgwej.'COO 0 Dtwnqwgt.'IO'cpf 'Hwnqp.'F 0*4242+:'Vj g'ej cpi kpi uqekqewnwtcn'eqpvgzv'qh'y knf nkhg eqpugtxcvkqp0'Eqpugtxcvkqp'Dkqmi {0f qk3208333 keqdk056; 5
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- Tkej ctf uqp.''N0*4223+0I gwkpi 'r gtuqpenk'Y tkkpi /uvqtkgu0Kpvgtpevkqpen'Iqwtpen'qh'S werksevkxg Uwf kgu'kp'Gf weevkqp.''36*3+.''55/5: 0
- Ueqw."F cy p'O 0"gv'cn0\$Ur cvkcn'F kntkdwkqp"qh'Ucteqr vke O cpi g'*Ucteqr vgu'uecdkgk+'kp"Wtdcp Hqzgu'*Xwr gu+'kp"I tgcv'Dtkckp"cu'F gvgto kpgf d{ "Ekkl gp"Uekgpeg0\$"Wtdcp Gequ{uvgo u'4507'*4242+<3349/620'RtqS wgw0'Y gd09 Qev0'42420
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- " | f go kt. "Xwtcri)"4242+0°0Qpg"Pcwtgö<"C"Pgy "Xqecdwrct{ cpf "Htco g"hqt"I qxgtpcpeg Kppqxcvlqp"kp"RquvEqxkf/3; "Rrcpgvct{"J gcnj 0C"Lqwtpcn qh"Kpvgi tcvkxg"Dkqmi {."xqri)'46083

Appendix A.

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

Vj cpm'{qw'hqt"{qwt 'kpvgtguv'kp''r ctvkekr cvkpi 'kp''qwt uwwf {0'Vj tqwi j ''vj ku'tgugctej ''y g''j qr g''vq''dgwgt wpf gtuvcpf ''vj g''y c{u''j wo cp'hggrkpi u''cdqww'cpko cn'ugpvkgpeg cpf ''go qvkqp''ecp'ko r cev''y g vtgcvo gpv'qh''cpko cnu''cpf ''cwkwf gu''cdqww''eqpugtxcvkqp0

Ki'{qw'ci tgg"\q'\cmg"r ctv'lp"\j ku'uwf {."{qw'y kmdg"cungf "\q'uwdo k\'r gtuqpcn'cpgef qvgu'cdqw''{qwt kpvgtcevkqpu'y kij "y knf nklg0'Kp"{qwt 'tgur qpugu'y g"gpeqwtci g {qw'\q'tghrgev'qp"{qwt go qvkqpcn'eqppgevkqp"\q"y knf "cpko cnu'cpf" {qwt 'kpvgtr tgvcvkqp qh'cpko cn'go qvkqp0'Y g y gneqo g'\j g'\uwdo kuukqp"qh'pcttcvkxgu."r j qvqi tcr j u. xkf gqu'cpf lqt"cwf kq"tgeqtf kpi u'qh {qwt 'kpvgtcevkqpu'y kij "y knf nklg0

Y g"ctg"j qr kpi "{qw'o c{"dgpghk/htqo "dgkpi "kp"y ku'uwf { cpf "kp"y g"eqo o wpkx{"etgcvgf "y tqwi j qwt"r nchqto "y j kej "y km'hquvgt"o gcpkpi hwn'eqpxgtucvkqpu cdqw'r ctvkekr cpvuø j wo cp/cpko cn'kpvgtcevkqpu0'Vj g"tgugctej gtu"j qr g"vq i gpgtcvg"npqy ngf i g"cdqw'y g'tqng"qh j wo cp"wpf gtuvcpf kpi "qh'ugpvkgpeg"kp"eqpugtxcvkqp"r tcevkegu y cv'o c{"dgpghk/uqekgv{0

Vj g'tgeqtf u'qh'y ku'uwf {'y km'dg'ngr v'r tkxcvg0Kp cp{'uqtv'qh'tgr qtv'y g'o c{'r wdrkuj .'y g'y km'pqv kpenwf g'cp{'kphqto cvkqp''y cv'y km'o cng'kv'r quukdrg vq'kf gpvkh{''{qw'kh''{qw'y kuj ''vq'tgo ckp cpqp{o qwu0Ki''{qw'j cxg''s wguvkqpu''cdqww'y ku''tgugctej . {qw'o c{'eqpvcev'Lgppkhgt''Uej cwgt. lgppkhgt(hgm){6B deQf w.'839/774/63520

D{"\r kpi "\qwt'hwn'pco g'kp"\j ku'\gzv'dqz."\qw'ctg ci tggkpi "\q"dg'kp"\j ku'uwf \{00 cmg'uwtg"\qw