

Znanost in literatura: razmislek o interdisciplinarnosti in vrstah vednosti

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V zadnjih dveh desetletjih se vse bolj uveljavlja skupno področje »znanost in literatura«, ki začrtuje nova ozemlja onstran razmejene pokrajine »dveh kultur«. Kako v kulturi raziskovanja vse bolj prehajamo meje, se najlepše kaže v kognitivni literarni vedi. To sicer razmeroma mlado področje se lahko pohvali z opusom, ki je širok po obsegu in vsebinskem razponu ter že s svojo organiziranostjo nakazuje možnosti za večdisciplinarno raziskovanje. Proučili bomo interdisciplinarnost s stališča evolucijske literarne vede – podpodročja kognitivne literarne vede –, obravnavali politične in ideološke posledice opisa literature, ki izhaja iz njene prilagoditvene vrednosti, in predstavili zgodovinske značilnosti debate o znanosti in literaturi.

Ključne besede: znanost / kultura / literatura / kognitivna literarna veda / evolucijska literarna veda / interdisciplinarnost

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I

V zadnjih dveh desetletjih se vse bolj uveljavlja skupno področje »znanost in literatura«, ki začrtuje nova ozemlja onstran razmejene pokrajine »dveh kultur«. Ta duh konstruktivne interdisciplinarne izmenjave se je leta 2003 izrazil v posebni številki revije *Modern Language Notes*, naslovljeni *Literature and the History of the Sciences* (Literatura in zgodovina naravoslovja), ki je oznanila, da dandanes obstajajo »komplementarne težnje v literarni vedi in v zgodovini naravoslovja, ki so očitno naposled dosegle metodološko konvergenco ali celo konsilienco« (Campe 515). Optimistični namig na novo metodološko pojmovanje, ki tli v oznanilu o »komplementarnih težnjah«, bi se vsaj v angleško govorečih profesorskih krogih še pred petdesetimi leti zdel malo verjeten, dandanes pa radi poudarjamo, da metode in pojmi iz literarne vede in naravoslovja konvergirajo kljub prepadu med njima; to jasno kaže, kako zelo je napredovala debata o »dveh kulturah«.

Kako v kulturi raziskovanja vse bolj prehajamo meje, se najlepše kaže v kognitivni literarni vedi. Čeprav je še razmeroma mlada, se lahko pohvali s širokim opusom, ki že s svojo organiziranostjo nakazuje možnosti za večdisciplinarno raziskovanje. Kognitivni pristopi se po obsegu in vsebini resda zelo razlikujejo – poznamo kognitivno poetiko, kognitivno stilistiko, kognitivno estetiko, kognitivno naratologijo, »evo« (evolucijsko) literarno vedo, »nevro« (nevroznanstveno) literarno vedo in druge interdisciplinarne študije, za katere bo treba šele iznajti formalni naziv –, a vsem sta skupni osredotočenost na kognitivno naravo književnosti in trdna vera, da lahko književnost osvetlimo z znanstvenimi metodami. To področje je vpeljal Mark Turner z raziskavo *The Literary Mind* (Literarni um; 1996), v kateri je kognitivne in psihološke procese bralnega dejanja osvetlil s pomočjo metod in pojmov kognitivnega jezikoslovja in nevroznanosti. Turner je ne le prenovil razmerja med dotlej ločenima vrstama vednosti, ampak je tudi na lastnem primeru pokazal, da je interdisciplinarnost neločljiva, in tako vzpostavil nova merila za povezovanje pojmov in metod dveh disciplin. Svoj pristop je povzel takole:

Pri združevanju starega z novim, humanistike z naravoslovjem, poetika in kognitivna nevrobiologija ne smeta ustvariti znanstvenega križanca, temveč morata iznajti praktičen, ubranljiv, razumljiv, intelektualno koherenten vzorec, po katerem bo mogoče odgovarjati na temeljna in stalna vprašanja o kognitivnih orodjih umetnosti, jezika in književnosti. (Turner, »The Cognitive Study« 9)

Vsi poskusi na tem področju pa niso bili tako preiščeni. Že na današnji začetni stopnji nam predstavijo o konvergenci kalijo epistemološka vprašanja, zlasti vprašanja evolucijske literarne vede. Za vstop v obravnavo teh problemov bomo proučili zbornik *The Literary Animal: Evolution and the Nature of Narrative* (Literarna žival: evolucija in narava pripovedi; 2005), ki sta ga uredila Jonathan Gottschall in David Sloan Wilson. V množici evolucijskih literarnih študij namreč izvrstno ponazarja poteze te šole, za nameček pa se jasno razmeji od utečene literarne vede, na katero so vplivale darvinistične ideje in v kateri so nekateri teoretiki, med njimi denimo Gillian Beer, pisali zelo prepričljivo in poučno (gl. Beer). Vprašali se bomo, s kakšnimi oblikami in metodami prenašamo evolucijsko vednost na literaturo, razmislili, kakšne politične in ideološke posledice ima opis literature, ki izhaja iz njene prilagoditvene vrednosti, in spremljali zgodovinske značilnosti debate o znanosti in literaturi. Pri »evo« literarni vedi nas namreč utegne najbolj presenetiti prav podobnost z argumenti iz preteklosti.

II

Evolucijska literarna veda izhaja iz predpostavke, da je jezik posebna in bistvena človeška lastnost, v kateri se skrivajo globoke resnice o človeški naravi. Pripovedi so navzoče v vseh človeških družbah, zato poskušajo evolucijski teoretiki dognati prilagoditveno vrednost literature tako, da literaturo opazujejo pod znanstvenim drobnogledom. »Prvič, za kaj gre pri literaturi?«; »Drugič, čemu literatura rabi?«; »Tretjič, kakšne so posledice za domnevno neznanstven predmet, kakršen je literatura, če se mu približamo z gledišča znanstvene discipline, kakršna je evolucija?« Okoli teh treh vprašanj se suče zbornik *The Literary Animal* (Gottschall in Wilson /ur./ xxv). S svojim pristopom do literature kot do predmeta resnega in trajnega znanstvenega raziskovanja urednika domnevno napravita velik korak v smeri interdisciplinarnosti, medtem ko večina znanstvenikov izloča »neznanstvene« vrste vednosti iz svojih raziskovalnih področij. V uvodu oznanita, da želita »izoblikovati en sam pojmovni okvir, ki bi poenotil raznorodne korpuse vednosti [...], in zasukati trend skrajne specializacije vednosti, ki je nastopil zaradi odsotnosti skupnega pojmovnega okvira« (xvii). V istem duhu piše E. O. Wilson o možnosti, da bi evolucijska literarna veda premostila prepad med obema kulturama. Če se bodo naturalistične teorije izkazale za pravilne, piše, in bomo na biološke korenine lahko poleg človeške narave trdno navezali tudi najbolj izstopajoče literarne stvaritve te človeške narave, bo to eden največjih dogodkov v intelektualni zgodovini. »*Znanost in humanistika bosta združeni!*« (Gottschall in Wilson /ur./ vii)

»Evo« teoretiki torej trdijo, da je prirojena literarnost človeškega uma eden najosnovnejših delov naše kognitivne kompetence, s tem pa po vsem videzu prenavljajo dinamiko razmerja med literaturo in naravoslovjem ter ju postavljajo v enakopravnejši položaj. A kljub temu kmalu naletimo na trditve, ob katerih se moramo vprašati, ali enotni pojmovni okvir temelji na skupni ali zgolj na znanstveni vednosti. Wilson na primer pravi:

Dandanes v literarni vedi vlada kaos, toda naturalistični (darwinistični) raziskovalci literature poznajo neprekosljivo strategijo, s pomočjo katere jo bodo lahko nadomestili. Zanje razmejitev med velikima vejama znanja – med naravoslovjem in humanistiko z družboslovjem – niso prelomna črta med dvema vrstama resnice. Pravzaprav zanje sploh niso črta, temveč prostranstvo pojavov, ki so zvečine že odkriti in čakajo, da jih bodo z združenimi močmi raziskali učenjaki z obeh strani. To pojmovanje ima to pomembno prednost, da se lahko empirično izkaže za pravilno, napačno ali v najslabšem primeru nerešljivo. (vii)

O ideji, da lahko doženemo literarno vednost s pomočjo empirične preverljivosti, ne bi bilo vredno zgubljeni besed, če ne bi šlo za značilno

in celo deklarirano metodo evolucijske literarne vede. Kljub navidezni nepristranosti, s katero E. O. Wilson lahko odpiše neprimerljivost različnih vzorcev vednosti, še vedno ostaja sporno, ali smo se primerljivosti literarnega in evolucijskega raziskovanja lotili zadovoljivo ali vsaj ustrezno. Preden lahko spregovorimo o epistemološkem statusu umetniškega sporočanja in pod vprašaj postavimo epistemologije znanstvene racionalnosti, je vredno opozoriti, da je v današnji interdisciplinarni kulturi takšno združevanje obeh kultur pogosta poteza, ki jo je treba razlikovati od pristnih poskusov konsilience. Zdaj že redno poslušamo o post-»dvokulturnih« ali anti-»dvokulturnih« izjavah in o tem, da bi bilo treba pridobivati vednost z manj razdvajajočim pristopom. Iz teh oznanil dobimo vtis, da je bila ideja o dveh kulturah samovoljna doktrina ali teritorialen predpis za separatistične načine raziskovanja. Vendar ko jo je C. P. Snow (1905–1980) leta 1959 ubesedil v svojem cambriškem predavanju »The Two Cultures and the Scientific Revolution« (Dve kulturi in znanstvena revolucija; gl. Snow, *Two Cultures*), je zgolj odseval institucionalni in pojmovni prepad, ki je prevladoval na Zahodu sredi 20. stoletja. Če Snowov povzetek kratkomalo zavr- nemo, ne da bi predlagali institucionalne in pojmovne spremembe, še več, ne da bi obe področji zasnovali bistveno drugače in pri tem segli globlje od površinskega sposojanja izrazov, dobimo kvečjemu retoriko ali kar misti- fikacijo, pod katero se skrivata razlikovanje in institucionalna neenakost.

Res je, da vročekrvna debata, ki besni, že vse odkar je Snow tezo obja- vil, F. R. Leavis pa zavrnil, ni dopuščala veliko prostora za proučevanje, ali so razlike med kulturama res tako absolutne. Pred dvema letoma je Onora O'Neill v svojem lastnem cambriškem predavanju »Two Cultures Fifty Years On« (Dve kulturi petdeset let pozneje) opozorila, da domneve in metode, po katerih kulturi delujeta, nista tako daleč narazen; kot primera je navedla skupni metodi interpretacije in inference, ki težita k empirič- nim resnicam in slonita na normativnih domnevah. Njena opažanja so umestna, kolikor v njih ubesedi današnjo težnjo h konvergenci. Vendar ne smemo zgubiti spred oči dejstva, da lahko debato o dveh kulturah po besedah Patricie Waugh (33) zasledimo že v klasični antiki, saj se suče okoli dveh načinov raziskovanja, ki vodita k dvema vrstama vednosti: k znanstveni, izmerljivi, in k estetski, neizmerljivi vednosti. Platonova ideja o intelektu, ki je estetiko razvpito zvedla na subjektivno emocionalnost, je v 20. stoletju našla ustreznico v Snowovem napadu na literarne intelektualce (natančneje, na modernistične pisce), zdaj pa se spet krepi v polemiki, ki jo je sprožila evolucijska literarna veda.

Toda vrnimo se k domnevni večvrednosti naravoslovne znanstvene metode. Evolucijski teoretiki zagovarjajo svoj način raziskovanja z apo- stolsko gorečnostjo, nič drugače kakor C. P. Snow pred dobrimi petde-

setimi leti, kvečjemu še s samozavestnejšim in bolj ozkogledim pozitivizmom. »Še nikjer na svetu ni nikoli nihče napisal literarnega teksta, ki bi bil zunaj dometa darvinistične analize,« zatrjuje Joseph Carroll v zborniku *The Literary Animal* (79). Takole nadaljuje:

Darvinistična psihologija nam ponuja znanstveno utemeljen in sistematičen prikaz človeške narave. Prvič v naši intelektualni zgodovini se je zgodilo, da imamo takšno teorijo, toda po drugi strani je njen predmet – človeška narava – prav tista narava, ki že od nekdaj razvema pisce in bralce. Zgodovinsko gledano pisci zvečine niso imeli dostopa do evolucijske razlage, kako se je človeška narava razvila do današnjega stanja, a so vendarle imeli globok intuitiven uvid v človeške motive in občutke. Danes pa lahko darvinistična družboslovna veda pomaga literarni vedi tako, da nam omogoči zavesten teoretski pristop k prvinskim silam, ki že od nekdaj ženejo vse ljudi in v temelju oblikujejo opažanja in razmišljanja vseh piscev in vseh bralcev. Darvinistična literarna veda nas lahko ponese nad površinske parafraze tradicionalne literarne vede, ne da bi nas prisilila v – pogosto napačne – redukcije, značilne za postmoderna pojmovanja človeške narave. (Carroll 103)

Toda kadar biološko usmerjene ideje o literarnem raziskovanju ne nadenjajo epistemološkega statusa estetske vednosti, ne morejo veliko povedati o literaturi, zlasti o literaturi brez očitne prilagoditvene vrednosti.

Splošna zmeda ob vprašanju, kaj je literarna vednost, ima veliko opraviti z domnevami o literaturi, s katerimi se evolucionisti lotevajo svojih raziskav. Kakor vse znanstvenike jih zanima najsplošnejša raven. Seveda se tudi literatura ukvarja s človeškimi univerzalijami, vendar jih ubeseduje na enkratno svojstven način. Prav v tej svojstvenosti je bistvo literarnosti. S tem ne želim ugovarjati redukciji; če vodi postopek redukcije k večji objektivnosti v naravoslovju, vodi tudi k točnejšemu pogledu na pravo naravo sveta v humanistiki. A nekateri postopki redukcije nas pripeljejo naravnost v slepo ulico; in nekateri celo izzovejo neposredne napade na neznanstvene vrste vednosti.

Kakor je Snow napadal nepreverljive vrste vednosti in modernizem, intelektualno vpet v logično pozitivistično pravovernost, tudi evolucijski teoretiki v omenjenem zborniku in drugod obsojajo nepreverljive ideje družbenega konstruktivizma in postmodernizma. Joseph Carroll pravi:

Obrat k teoretsko usmerjeni literarni vedi je bil resda odgovor na jasno izkazano potrebo, vendar so bili vse doslej v rabi močno nezadovoljivi teoretski modeli. Dekonstrukcija, marksizem, freudizem in foucaultovska politična kritika predpostavljajo ideje o človeški naravi, ki se ostro bijejo z darvinističnim pojmovanjem. Preostala vodilna šola, feminizem, pa ni enovita, koherentna teorija, pač pa obravnava specifične tematike – položaja žensk –, toda predstave, ki se kopičijo okrog te obravnave, pogosto prinašajo napačne ideje o človeški naravi, za povrh pa se je večina feminističnih teoretičark v zadnjih tridesetih letih pridružila kateri od vodil-

nih teoretskih šol. Kot filiale postmoderne teorije vse te šole v temelju zavračajo idejo o prirojeni, biološko določeni strukturi v človekovem motivacijskem in kognitivnem sistemu [...], ponujajo izkrivljene, popačene in za lase privlečene orise temeljnih motivov in urejevalnih načel literarnih tekstov. (Carroll 102)

Drži, da se poststrukturalističnim in postmodernističnim orisom občasno ni uspelo zadovoljivo spoprijeti s kategorijo naravnega. Nekatere smeri postmodernega epistemološkega relativizma so obravnavale znanstvene pojme in metode s skrajno skepsjo in tako zanetile desetletja trajajoče spore o epistemologiji in metodologiji, ki so dosegli vrhunec z »znanstvenimi vojnami« v devetdesetih letih (za očrt teh vojn gl. Norris). Vendar če neko stališče zavrremo tako, da postavimo na laž vrsto pomanjkljivih argumentov, ki govorijo v njegov prid, nič ne pripomoremo k epistemološki združljivosti izmerljive, pozitivistične, in neizmerljive, estetske vrste vednosti.

Morda je bojeviti ton povezan z rušenjem pregrad med disciplinami in z gradnjo novih vzorcev. Toda ta polemika bržkone ni neodvisna od dejstva, da se je kognitivna znanost porodila iz biološke revolucije v petdesetih letih in da je biologija v svoji zdajšnji pojavni obliki spodrinila klasično fiziko kot »zgledna« disciplina, ki postavlja merila vsakršnega raziskovanja. Polemična retorika evlucijskih teoretikov, ki spominja na, rečeno z Leavisom, »tehnološko-benthamsko« redukcijo človeškega, značilno za Snowovo čezmerno razširitev naravoslovne epistemologije (gl. Leavis), se utegne zazdeti kot bojevito zatrjevanje znanstvene večvrednosti. Tudi hierarhizacija vednosti, ki jo predpostavlja »evo« literarna veda, spominja na Snowovo shemo dveh kultur, ki je naravoslovni način raziskovanja enačila s politično naprednostjo, literarno kulturo pa z izrojenostjo. »Določen tip umetnosti je postal tesno povezan z določenim tipom nečloveškosti,« je zatrdil Snow (Snow, *Recent* 6). Na povezovanju nazadnjaške in uživaške drže z literarnimi intelektualci in napredne drže pa z naravoslovjem temelji evlucijska literarna veda, v kateri ni mesta za »nerazvedrilo« modernistično in postmodernistično literaturo. Modernizem in postmodernizem je najglasneje obsodil Steven Pinker, ki je v knjigi *The Blank Slate* (Nepopisan list) sistematično napadel tiste oblike književnosti, v katerih ni našel nikakršne prilagoditvene vrednosti. Žal je takšna logika obarvala tudi zbornik *The Literary Animal*.

Za kaj torej po evlucijski logiki gre pri literaturi? Čemu je namenjena? Ob proučevanju literature »evo« raziskovalec literature ugotavlja, da je mogoče oblikovati različne hipoteze o prilagoditveni vrednosti literature, v podporo svoji misli pa navede razvedrilo, informiranje, simulacije, ki pripravljajo ljudi na dejansko odločanje, na nadomestno izpolnjevanje želja in na protidejstvene fantazije. Te vrednosti morda dejansko osvetljujejo literarna besedila, toda tu se ne želim ukvarjati s kakovostjo teh interpretacij.

Razpravljati želim o političnih in ideoloških posledicah predpostavke, ki neposredni poveže literaturo in uporabno vrednost ter obenem zanemari formalne poteze, ki so konstitutivne za literaturo. Kaj je namreč literatura, če ni forma? Literatura je relevantna prav zato, ker je ne moremo preleti v enostavnejši jezik, tj. ker obstaja zgolj kot nedeljiva celota, ki ima vselej simbolni pomen. Seveda potekajo pod naslovom branja in pisanja številne tako ali drugače povezane dejavnosti, ki brez izjeme prispevajo k izkustvu književnosti, tako da utegneta med njimi imeti vlogo tudi razvedrilo in zbiranje informacij. Vendar ideja, da že samo razvedrilo pojasnjuje literaturo, ni zgolj nepopolna, ampak kratkomalo zgrešena. Nerazvedrilne literature je brez dvoma dovolj, da resno omaje idejo o človeški naravi, na kateri temeljijo te naravoslovne hipoteze. V razvedrilu ne bi niti najbolj zakrknjeni empiricisti videli zadostnega merila za vrednotenje in doumevanje književnosti, zlasti če razvedrilo pojmuje kot pasivno sprejemanje informacij. Naslednji problem pri enačenju literature z razvedrilom je zanemarjanje zveze med umetnostjo in ideologijo. Ali nekatere oblike književnosti, zlasti enolična žanrska književnost, tako ljuba »evo« teoretikom, utrjujejo povsem določene načine gledanja? So nekatere literarne oblike simbolne upodobitve družbenih razmerij? Če literatura zrcali družbo, ali jo zrcali zgolj delno in ali ta nepopolnost zakriva temeljna protislovja v družbi? Skratka, kakšen epistemološki status ima velika tradicija negativne dialektike v literaturi? Literatura ni zgolj zrcalo, temveč tudi odklanja, zavrača in negira. Marsikdaj velikopotezno zavrača obstoječe stanje, negira sedanjost; pogosto nam tudi pokaže, kaj bi nemara lahko postali.

Prilaščanje in parodiranje književnosti utegneta imeti posledice, usodnejše od psevdoliterarnih trditvev o prilagoditveni vrednosti pripovedi. Nekateri evolucijski teoretiki so bili (kakor pred njimi Snow) splošno sprejeti kot vpliven in avtoritativen glas znanosti v svetovnem merilu; njihove neodarvinistične nevromitologije bodo vplivale ne le na prihodnjo usmeritev kognitivizma, ampak tudi na javne intelektualce, katerih mnenja se oblikujejo v znanstvenih diskurzih. V jedru debate o literaturi se ne skriva nič manj kakor predstava človeštva o samem sebi, tesno povezana z družbeno strukturo vrednot, pri čemer ta debata poteka že vsaj dve stoletji.

Manj znano, a relevantno predhodnico polemike Snow–Leavis najdemo v 19. stoletju v različici Huxley–Arnold, iz katere sta izhajala tako Snow kakor Leavis. Matthew Arnold (1822–1888) je leta 1882 v svojem cambriškem predavanju »Literature and Science« (Literatura in znanost) zavrnil – resda bolj uglajeno in spoštljivo – trditve T. H. Huxleyja (1825–1895), ki je v eseju »Science and Culture« (Znanost in kultura) dal naravoslovju prednost pred tradicionalno klasično izobrazbo. Arnold je razmišljal takole:

Če moramo torej humanistiko ločiti od naravoslovja in izbrati eno ali drugo, po svoji najboljši vesti sodim, da bi veliki večini človeštva – vsem, ki nimajo izjemnega in neustavljivega daru za študij narave – bolj koristila odločitev za humanistično izobrazbo kakor za naravoslovno. Humanistika bo nagovorila njihovo bit ob številnejših priložnostih in jim omogočila polnejše življenje. (Arnold 70)

Kot kaže zgornji primer, sta na podlagi Arnoldove ideje, da nam daje življenje literatura in zgolj literatura, naravoslovno večvrednost ovrгла tako Arnold sam kakor Leavis. Arnoldova misel, da je humanistika (»*human letters*«) ločena od naravoslovja, v splošnem pogloblja razpoko, ki je med vrstami vednosti zazevala z vznikom evropskega razsvetljenstva v 17. in 18. stoletju. Jasni in vzajemno izključujoči se kategoriji vednosti, kakršni očitata Snow in Leavis, pa sta značilni šele za 19. stoletje. O znanstvenikih, do 19. stoletja znanih kot »*prirodopisci*« (»*natural philosophers*«), je veljalo, da poleg sveta narave proučujejo tudi človeško kulturo. Še več, sodeč po *Oxfordskem angleškem slovarju* se je kategorija »*znanosti*« (»*science*«) v ožjem, omejenem pomenu besede, v katerem se nanaša zgolj na fiziko ali naravoslovje, medtem ko teologijo in metafiziko izključuje, v angleščini pojavila šele v tridesetih letih 19. stoletja.¹

Med izjemno pestrimi posledicami te genealogije je za naše razmišljanje najpomembnejša hierarhija vednosti, ki nastaja s takšno kategorizacijo. Že od romantike naprej zlahka naletimo na primere, ko si kategorija znanosti lasti zanesljivo, objektivno vednost; vse odtlej debata o dveh kulturah hočeš nočeš poteka tako, da humanistika nenehno brani vrednost estetske oblike vednosti (gl. Collini). Od tod hudo neravnovesje v stopnjah njune legitimnosti in potreba humanistike po večnem samoopravičevanju. To samoopravičevanje pa poteka predvsem na dva načina. Prva možnost je, da humanistika teži k statusu naravoslovja in se tankovestno ogiba ne-preverljivim problemom, kakršni so pomen, vrednost in intenca; najbolj znan, čeprav nikakor ne edini predstavnik te metode je bilo »*ново kritištvo*«. Druga možnost pa je, da zagovarjamo obstoj in vrednost posebne estetske, neznanstvene vrste vednosti ali, z drugimi besedami, metode moderne estetike. Kot je zapisal Terry Eagleton (16), »*estetika [...] vznika iz spoznanja, da sveta zaznave in izkustva ne moremo preprosto izpeljati iz abstraktnih univerzalnih zakonov, temveč zahteva ta svet sebi primerno govornico in kaže lastno, četudi manj kakovostno notranjo logiko*«. Zato bi morala sleherna interdisciplinarna raziskava zastaviti vprašanje, ali so intelektualne metode in merila, ki jih prevzemamo iz naravoslovja, sploh primerni za diskurz, utemeljen prav na nečem, česar ne moremo izpeljati iz naravoslovnih vrst vednosti. Konvergenca transdisciplinarnih razsežnosti ni mogoča brez korenite preobrazbe opisanih podedovanih kategorij, saj je problem epistemološke kompatibilnosti v nasprotnem primeru le

stežka rešljiv. Če pa zgornji kategoriji izbrisemo in se odločimo za mitično tretjo kategorijo, ne ravnamo nič manj dvomljivo, kot če bi ju odvrgli na smetišče zgodovine, saj se takšni domnevno ozki spori v resnici sučejo okoli globljih vprašanj.

Prednosti naravoslovja resda utegnejo utemeljiti prihodnjo konsilenco naravoslovja in humanistike, vendar se bomo pri doseganju tovrstnega višjega razumevanja morali ob soočanju z naravoslovno redukcijo literarnosti nenehno zavzemati za pomen estetske vednosti. Nekatere resnice o človeškem izkustvu je mogoče posredovati zgolj v estetski obliki – to pa je že prepričljiv argument za to, da ohranimo pokrajino dveh kultur razmejeno, četudi se obenem upiramo okoliščinam, v katerih je ta razmejitev nastala.

Prevedla Nada Grošelj

OPOMBA

¹ V nemški tradiciji razločevanje med *Geisteswissenschaften* (ali *Literaturwissenschaften*) in *Naturwissenschaften* nima posledic za kategorijo *Literatur*, saj je ta povsem izvzeta iz *Wissenschaften*.

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Science and Literature: Reflections on Interdisciplinarity and Modes of Knowledge

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The joint field of 'science and literature' has been gaining increasing prominence in the last two decades, charting new grounds beyond the divided landscape of the 'two cultures'. Of our increasingly border-crossing research culture, no field provides a better example than cognitive literary criticism. Though still relatively young, this area has already produced a body of work that is extremely wide-ranging in both scale and explanatory scope, illustrating through its very organization the possibilities of multidisciplinary enquiry. This paper will examine interdisciplinarity with reference to evolutionary literary criticism, a sub-field within cognitive literary criticism; a scrutiny of the political and ideological implications that follow from basing an account of literature on adaptive value will be given followed by a discussion of the historical lineaments of the science/literature debate.

Keywords: science / culture / literature / cognitive literary criticism / evolutionary criticism / interdisciplinarity

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I

The joint field of 'science and literature' has been gaining increasing prominence in the last two decades or so, charting new ground beyond the divided landscape of the 'two cultures'. The *MLN* signaled this spirit of constructive interdisciplinary exchange in their special issue entitled *Literature and the History of the Sciences* (2003), which announced that there were now 'complementary tendencies in literary studies and the history of sciences, tendencies that seemed to eventually converge or even to coincide methodologically' (Campe 515). The hopeful note of methodological reconceptualisation inherent in the 'complementary tendencies' pronouncement would have seemed improbable fifty years ago, at least in

the Anglo-Saxon academic world; that such optimistic foregrounding of convergences, of both methods and concepts across the divide, is common today makes plain the very many advances the 'two cultures' debate has taken.

Of our increasingly border-crossing research culture, no field provides a better example than cognitive literary criticism. Still relatively young, cognitive literary criticism has already produced a body of work that is extremely wide-ranging, illustrating through its very organization the possibilities of multidisciplinary enquiry. Though cognitive approaches range widely in both scale and explanatory scope – cognitive poetics, cognitive stylistics, cognitive aesthetics, cognitive narratology, 'evo' (evolutionary) literary studies, 'neuro' (neuroscientific) literary studies and other interdisciplinary studies yet to be given a formal title – they have in common a focus on the cognitive nature of literature and a belief in using the methods of science to illuminate it. The study that opened up this field was *The Literary Mind* (1996) by Mark Turner: in it, Turner used the methods and concepts of cognitive linguistics and neuroscience to illuminate the cognitive and psychological processes at work in the act of reading. It has not only recalibrated the relations between previously discrete modes of knowledge but has demonstrated through its example that interdisciplinarity is inherent, setting new standards for bringing the concepts and methods of one discipline into a working relation with the concepts and methods of another. Turner sums up his approach:

In combining the old and the new, the humanities and the sciences, poetics and cognitive neurobiology is not to create an academic hybrid but instead to invent a practical, sustainable, intelligible, intellectually coherent paradigm for answering basic and recurring questions about the cognitive instruments of art, language, and literature. (Turner, 'The Cognitive Study' 9)

Not all attempts in this field have been quite so judicious. Even at this inchoate stage, there are epistemic issues that trouble the notion of convergence, none more so than in the field of evolutionary literary criticism. To discuss the problems, I will examine *The Literary Animal: Evolution and the Nature of Narrative* (2005) edited by Jonathan Gottschall and David Sloan Wilson. Though there have been many evolutionary literary studies, this book illustrates the defining features of this school singularly well; and it is also clear in differentiating itself from long-established criticism informed by Darwinian ideas, in which critics like Gillian Beer, among others, have written powerfully and illuminatingly (see Beer). I will investigate the forms and methods that underpin this kind of application of evolutionary knowledge to literature, consider the political and ideological implications that

follow from basing an account of literature on adaptive value, and trace the lineaments of the debate historically. For perhaps the most striking feature of evo criticism is its striking similarity with arguments of the past.

II

Evolutionary literary critics begin from the premise that language is a distinct and defining feature of humans which holds profound truths about human nature. Looking at the sheer ubiquity of narratives in human societies, they attempt to understand the adaptive value of literature by using literature as an object of scientific scrutiny. ‘First, what is literature about?’; ‘Second, what is literature for?’; ‘Third, what does it mean for a seemingly nonscientific subject such as literature to be approached from the perspective of a scientific discipline such as evolution?’ – these are three questions that underpin *The Literary Animal* (Gottschall and Wilson [eds.] xxv). In regarding literature as an object of serious and sustained scientific enquiry, *The Literary Animal* appears to take a big step forward towards interdisciplinarity, unlike the majority of scientific writing which excludes what it regards as non-scientific modes of knowledge from its field of investigation. The introduction announces that it seeks to ‘provide a single conceptual framework for unifying disparate bodies of knowledge [...] and reverse the trend of extreme specialization of knowledge that has taken place in the absence of a unifying conceptual framework’ (xvii). In the same vein, E. O. Wilson writes about the possibility of evolutionary literary criticism to bridge the divide between the two cultures. If naturalistic theories are proved to be right, he writes, ‘not only human nature but its outermost literary productions can be solidly connected to biological roots, it will be one of the great events of intellectual history. *Science and the humanities united!*’ (Gottschall and Wilson [eds.] vii)

But if by proposing the inherent literariness of the human mind as one of the most fundamental parts of our cognitive capacity, ‘evo’ criticism appears to recalibrate the dynamics of the relationship between literature and the sciences and put them on a more equal footing, one is very soon confronted by assertions, such as E. O. Wilson’s, which prompt the question of whether the single conceptual framework is based on a common ground of knowledge or a ground of scientific knowledge only. He writes:

Confusion is what we have now in the realm of literary criticism. The naturalistic (Darwinian) literary critics have an unbeatable strategy to replace it. They do not see the divisions between the great branches of learning – the natural sciences on one side and humanities and humanistic social sciences on the other – as a fault

line between two kinds of truth. They do not consider it a line at all but rather a broad expanse of mostly uncovered phenomena awaiting cooperative exploration by scholars from each side. This conception has the enormous advantage that it can be empirically proved to be either right or wrong or at worst, unsolvable. (vii)

The idea that literary knowledge can be established through empirical verifiability would not be worth serious consideration except that this is a typical, indeed declared, method of evolutionary literary criticism. And despite E. O. Wilson's veneer of impartiality, established through his breezy dismissal of the incommensurability of various paradigms of knowledge, it still remains a matter of dispute whether the commensurability of literary and evolutionary enquiry has been satisfactorily or even adequately addressed. Before the discussion on the epistemological status of artistic communication can be had, and challenges to the epistemologies of scientific rationality be made, it is worth pointing out that this kind of collapsing of the two cultures is a common feature in the present interdisciplinary culture which should be distinguished from genuine attempts at consilience. It is now commonplace to hear of post-'two cultures' or anti-'two cultures' proclamations and how one should embrace a less divisive approach to acquiring knowledge. In these announcements, it would seem that the two cultures idea was an arbitrary doctrine or a territorial prescription for separatist modes of enquiry. But when C. P. Snow (1905–1980) articulated this idea in his 1959 Cambridge Rede lecture, 'The Two Cultures and the Scientific Revolution' (see Snow, *Two Cultures*), he was merely reflecting the institutional and conceptual divide prevalent in the Western world in the mid-twentieth century. A simple rejection of Snow's summary without institutional and conceptual changes and without a fundamental reconceptualisation of both fields, one that goes beyond superficial term-borrowing, amount to little more than rhetoric, or even worse, a mystification that masks difference and institutional inequality.

It is true that in the heated and ferocious debate following on from Snow's thesis and F. R. Leavis's subsequent rebuttal, there was little room to examine whether the differences between the two cultures were quite so absolute. Two years ago, Onora O'Neill pointed out in her Cambridge Rede lecture, entitled 'Two Cultures Fifty Years On', that the assumptions and methods by which both cultures proceed are not quite so divided, giving as her examples the common methods of interpretation and inference aiming at empirical truths and relying on normative assumptions. O'Neill's observations are timely in that they express something of the current climate of convergence. But one should not lose sight of the fact that the two culture debate, as Patricia Waugh (33) has argued, can be dated back as far as classical antiquity, revolving as it does around two

modes of enquiry leading to two kinds of knowledge: scientific, quantifiable knowledge and the aesthetic, non-quantifiable knowledge. Plato's idea of intellect, which famously relegated aesthetics to subjective emotionalism, found its twentieth-century equivalent in Snow's attack on literary intellectuals (or more specifically, modernist writers) and is undergoing a resurgence again in current polemics produced by evolutionary literary critics.

But to return to the issue of the presumed superiority of the scientific method: just as C. P. Snow did fifty-odd years earlier, but with an even more confident and blinkered positivism, evolutionary critics, with evangelical zeal, champion their mode of enquiry. 'There is no work of literature written anywhere in the world, at any time, by any author, that is outside the scope of a Darwinian analysis', claims Joseph Carroll in *The Literary Animal* (79). He continues:

Darwinian psychology provides a scientifically grounded and systematic account of human nature. This is the first time in our intellectual history that we have had such a theory, but the subject of this theory – human nature itself – is the very same nature that has always animated writers and readers. Most writers historically have not had access to the evolutionary explanation for how human nature came to be what it is, but they have nonetheless had a deep intuitive understanding of human motives and human feelings. What a Darwinian social science can now do for literary criticism is to give us conscious theoretical access to the elemental forces that have impelled all human beings throughout time and that have fundamentally informed the observations and reflections of all writers and all readers. Darwinian criticism can lift us above the superficial paraphrases of traditional criticism without forcing us into the often false reductions in the postmodern conceptions of human nature. (Carroll 103)

But biology-led ideas of what literary enquiry is, when they do not address the epistemological status of aesthetic knowledge, have little to say about literature, especially that with no discernable adaptive value.

A general confusion about what literary knowledge is has much to do with the assumptions about literature with which evolutionists begin their investigation. They are, like all scientists, concerned with the highest levels of generality. Literature is of course concerned with human universals but formulated in a uniquely specific way. The specificity is what constitutes the literariness. This is not an argument against reduction. If the process of reduction is a move in the direction of greater objectivity in the sciences, it is also a move towards a more accurate view of the real nature of things in the humanities. But some processes of reduction lead us straight up a dead end. And some lead to direct attacks on non-scientific modes of knowledge.

Evoking Snow's attack on non-verifiable modes of knowledge and modernism, the intellectual frame of which was logical positivist orthodoxy, evolutionary critics, in this volume and elsewhere, condemn non-verifiable ideas of social constructivism and postmodernism. Joseph Carroll argues:

The turn to theory-driven criticism answered to a manifest need, but the theoretical models that have been used, up to now, have been painfully inadequate. Deconstruction, Marxism, Freudianism, and Foucauldian political criticism have all presupposed ideas about human nature that conflict sharply with the Darwinian conception. The other main school, feminism, is a less single, coherent theory than a preoccupation about a specific subject matter – the condition of women – but the notions that cluster around this preoccupation often entail false ideas about human nature, and most feminist critics over the past thirty years have affiliated themselves with one or other of the dominant theoretical schools. All of the schools, as subsidiaries of postmodern theory, have fundamentally repudiated the idea of an innate, biologically constrained structure in the human motivational and cognitive system [...] offer[ing] distorted, skewed and strained accounts of the elemental motives and governing principles in literary texts. (Carroll 102)

That poststructuralist and postmodernist accounts have at times failed to adequately address the category of the natural is a valid point. Certain strands of postmodern epistemological relativism have treated the concepts and methods of science with extreme scepticism and consequently have produced decades of disputes over epistemology and methodology which reached a peak in the 'science wars' of the 1990s (for a delineation of which, see Norris). However, refuting a position by discrediting several flawed arguments in its favour does not encourage epistemic compatibility of the quantifiable, positivist and measurable and the non-quantifiable, immeasurable, aesthetic mode of knowledge.

The combative tone may have something to do with the process of breaking down barriers between disciplines and constructing new paradigms. But the polemics does not seem unrelated to the fact that cognitive science was borne out of the biological revolution of the 1950s and that within its current manifestation, biology has now superseded classical physics as the 'exemplary' discipline which sets the standard of all inquiry. Redolent of what F. R. Leavis called the 'technologico-Benthamite' reduction of the human in Snow's overextension of scientific epistemology (see Leavis), evolutionary critics' polemical rhetoric can seem like gung-ho assertions of scientific supremacy. The hierarchisation of knowledge presumed by evo criticism is, again, reminiscent of Snow's scheme of the two cultures which equated the scientific mode of investigation with political progressivism, and the literary culture with the degenerate. 'A certain type

of art has been intimately linked with a certain type of inhumanity' averred Snow (Snow, *Recent* 6). That a set of regressive and self-indulgent attitudes is associated with literary intellectuals, and a set of progressive ones with natural sciences, is the foundation of evolutionary criticism in which there is no place for 'non-entertaining' modernist and postmodernist literature. The most extended condemnation of modernism and postmodernism is Steven Pinker's *The Blank Slate*, which mounts a systematic attack on forms of literature from which he can find no adaptive value. Regretfully, this is a logic that informs *The Literary Animal*.

So what is literature about according to evolutionary logic? What is it for? Looking at literature, the evolutionary critic finds that various hypotheses could be made about its adaptive value, producing as evidence entertainment, circulation of information, simulations that prepare humans for actual decision-making, vicarious wish-fulfilment and counter-factual fantasy. These values may or may not illuminate literary texts but the quality of these interpretations is not a point I would like to pursue here. What I would like to discuss are the political and ideological implications of positing a direct link between literature and use value while passing over in silence the formal characteristics that constitute literature. For what is literature if not form? Literature has crucial relevance precisely because it is not paraphrasable into more basic speech and because it only exists as an indivisible whole whose meaning is always symbolic. Of course a large number of activities go on under the heading of reading and writing, activities which are connected in various ways and which all add up to the experience of literature, and among which entertainment and information gathering could play a part. However, the idea that entertainment in itself elucidates literature is not only incomplete but misconceived. There is certainly enough non-entertaining literature to constitute a formidable challenge to the idea of human nature upon which these scientific hypotheses are based. And even the most hard-boiled empiricists would regard entertainment an inadequate criterion for evaluating and comprehending literature, especially when the concept of entertainment revolves around passive reception of information. Another problem of equating literature with entertainment is that it ignores the relationship between art and ideology. Do some forms of literature, especially repetitive genre fiction on which 'evo' critics are so keen, reinforce certain ways of seeing? Are certain literary forms symbolic representations of social relations? If literature reflects society, is the reflection partial and does the partiality mask fundamental contradictions of that society? In short, what is the epistemological status of the great tradition of negative dialectics in literature? Literature does not merely reflect; it also refuses, rejects and negates. Literature is

often a great refusal of what is, a negation of the present. It is also often a proposal of what we can hope to become.

The misappropriations and parody of literature have potential consequences reaching far beyond pseudo-literary claims about the adaptive value of narratives. Some evolutionary critics, like Snow before them, have been widely accepted as a powerful and authoritative voice of science on a global scale, and their neo-Darwinian neuromythologies have a bearing not only on the future direction of cognitive science but on the public intellectuals whose opinions are informed by and produced within scientific discourses. If one looks closely, at the heart of this debate on literature is nothing less than humanity's model of itself, closely associated with society's structure of values, and this debate has been on-going for at least two hundred years.

A less well-known but pertinent antecedent of the Snow-Leavis controversy can be found in the nineteenth century, in the Huxley-Arnold version, which provided the point of reference for both Snow and Leavis. Matthew Arnold's (1822–1888) own Rede lecture of 1882, entitled 'Literature and Science', rebutted, albeit in a more gentlemanly and respectful manner, the claims made by T. H. Huxley (1825–1895), whose 'Science and Culture' promoted science over the traditional classical education. In his refutation of Huxley, Arnold argued:

If then there is to be a separation and option between humane letters on the one hand, and the natural sciences on the other, the great majority of mankind, all who have not exceptional and overpowering aptitudes for the study of nature, would do well, I cannot but think, to choose to be educated in humane letters rather than in the natural sciences. Letters will call out their being at more points, will make them live more. (Arnold 70)

As this example demonstrates, Arnold's idea that literature is closely and exclusively involved with the giving of life is the premise on which both he and Leavis based their refutation of scientific supremacy. That 'humane letters' is separate from the natural sciences of which Arnold speaks is broadly a continuation of the fissure that opened up between types of knowledge in the seventeenth and eighteenth centuries with the advent of European enlightenment. But the clear and mutually exclusive categories of knowledge, as delineated by Snow and Leavis, are a distinctly nineteenth-century phenomenon. Scientists, called 'natural philosophers' prior to the nineteenth century, were understood to include in their study the culture of humans as well as the natural world. Indeed, the category of science, in English, in the narrow restricted meaning of the word as pertaining to the physical or the natural sciences to the exclusion of theo-

logical and metaphysical science, dates back no further than the 1830s according to the *OED*.¹

Of the extremely wide range of implications arising out of this genealogy, the most pertinent to the present argument is the hierarchy of knowledge produced by such categorization. From the romantic period onwards, one can readily find the category of science assuming a special claim to reliable, objective knowledge and from then on the two cultures debate could not but proceed with the humanities continually defending the value of an aesthetic form of knowledge (see Collini). As a consequence, there has been a huge imbalance in their degree of legitimization which has pushed the humanities to a perennial self-justification. There have been two main approaches to this justification. One approach has been for the humanities to aspire to the condition of science, scrupulously avoiding non-verifiable questions such as meaning, value and intention; the New critics have been the most notable though by no means the sole practitioners of this method. The other approach has been to defend the existence and value of a specifically aesthetic, non-scientific kind of knowledge; in other words, the methods of modern aesthetics. As Terry Eagleton (16) has stated, 'aesthetics is born of the recognition that the world of perception and experience cannot simply be derived from abstract universal laws, but demands its own appropriate discourse and displays its own inner, if inferior, logic.' Thus any interdisciplinary research would need to address the question of whether the intellectual methods and standards adopted from the natural sciences are appropriate for a discourse founded on precisely that which cannot be derived from scientific modes of knowledge. A convergence of transdisciplinary proportions would require profound transformations of the inherited categories as described above, for it is unlikely that any attempt that does not achieve this will be able to resolve the issue of epistemological compatibility. Erasing the two categories in favour of a mythical third is no less a dubious gesture than relegating the categories to the waste heap of history, for there are more profound issues at stake in such apparently narrow disputes.

The scientific ascendancy may provide the foundation for consilience, but to reach that level of advanced understanding the significance of aesthetic knowledge will need to be continually reasserted in the face of scientific reduction of the literary. Certain truths about the human experience can only be communicated in aesthetic form which is one strong argument for preserving the divided landscape of the two cultures even as we try to resist the circumstances which produced it.

NOTE

¹ In the German tradition, the distinction between *Geisteswissenschaften* (or *Literaturwissenschaften*) and *Naturwissenschaften* does not affect the category of *Literatur*, which is outside of *Wissenschaften* all together.

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