Peirceova teorija raziskave kot poetološki model: primer literarnega realizma

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Članek predstavi filozofijo Charlesa Sandersa Peircea kot most med področjema t. i. eksaktnih znanosti ter humanistike in umetnosti. S pomočjo Hansa Vilmarja Gepperta in njegove teorije literarnega realizma, tj. njegove peirceovske »realistične semiotike«, članek odkrije znanstveno metodologijo pod krinko poetološkega vzorca. Geppertova uporaba semiotike pri raziskavah literarnega realizma in komunikacije nasploh ponuja dva izvirna uvida: poleg ponovnega ovrednotenja historičnega realizma 19. stoletja vzpostavlja Peirceova teorija raziskovanja kot pragmaticistični odgovor na neposredno soočenje s krizo komunikacije živ poetološki model, uporaben tudi za današnje umetnosti. Dialog med znanostmi ter humanistiko in umetnostmi tako postane spet mogoč.

Ključne besede: semiotika / realizem / znanost / humanistika / Peirce, Charles Sanders / Geppert, Hans Vilmar

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Semiotika in stroji

Oddaljen odmev razmisleka Charlesa Percyja Snowa o »dveh kulturah«, o kulturi (naravoslovnih) znanstvenikov in kulturi (literarnih) intelektualcev, ki ju loči prepad obojestranskega nerazumevanja, je tudi problematika semiotičnega statusa pojavov mehanskega izvora. Zastavlja se vprašanje, kako človek interpretira znake, ki jih je naredil stroj v okvirih tehnološkega procesa, utemeljenega na znanstvenih dognanjih in algoritmih, ki sami porajajo nove znake, in sicer večinoma brez človeškega posredovanja ali nadzora.

Espen J. Aarseth obravnava kibertekst kot novomedijsko besedilnost, ki jo izdelujejo »besedilni stroji«.[1] Glavna lastnost kibernetičnega teksta, ki delno uhaja avtorjevemu nadzoru, s tem ko ponuja pravzaprav neskončen nabor možnih branj na podlagi določenih pravil, ki so sama neločljivi del besedila, je t. i. »prag med signalom in znakom«. Izhodni podatki sa-

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mourejevalnega besedilnega stroja so razcepljeni na dva dela: na materialni signal, ki je izvzet iz znakovnega, in na znakovni učinek, ki deluje na uporabnika-bralca. V nasprotju na primer s kinematografskim medijem, kjer je dvojnost filmskega traku in filmske projekcije povsem trivialna, je v kibertekstu odnos med (skrito) računalniško kodo in ravnijo sporočila »arbitraren«. Sporočilni del kiberteksta delno uhaja avtorjevemu nadzoru in s tem zapušča območje medčloveške komunikacije.[2] Po Aarsethu (22, 29, 31) se semiotični vidiki kiberteksta nanašajo na dvoje: na opazovanje človeškega dojemanja sistema, tj. načinov, kako uporabnik pretvori signale v pomenonosne znake, in na implicitno teleologijo, tj. na namene konstruktorja besedilnega aparata, ki jih lahko razberemo na primer z analizo algoritmov. Novomedijski umetnik in teoretik David Link (85) sklepa podobno kakor Aarseth: uporabnik besedilne pustolovske igre se mora bodisi naučiti »jezikovne inkompetence« (*Sprach-Inkompetenz*) ali pa sprejeti »umsko omejenost« (*Behinderung*), da lahko komunikativno vstopi v svet (besedilnih) računalniških iger. To nedoločnost v komunikaciji pojasnjuje dejstvo, da računalnik, ki je v osnovi Turingov stroj, ne deluje na ravni predstavljenih informacij, ampak na predsemiotični stopnji, kjer je homogena materialnost umetno ločena v različna stanja.[3]

S problemi, na katere je pokazala umetniška praksa novomedijske besedilnosti, se srečujejo tudi raziskave v digitalni humanistiki. Prvi »Pamflet« Stanfordskega literarnega laboratorija, ki ga vodita Matthew Jockers in Franco Moretti, samokritično pretehta rezultate računalniške kvantitativne analize literarnih žanrov:

> [Računalniško generirana] podoba žanra [tj. diagramatična predstavitev variacij v zbirki podatkov] je bila očitno tudi nepopolna, saj nam razlikovalne lastnosti lahko povejo vse, kar potrebujemo, da bi razločili oblike drugo od druge, hkrati pa zelo malo o notranji strukturi vsake od teh oblik. Če bi vsi moški v občinstvu nosili roza obleke, vse ženske pa modre, bi jih barve *popolnoma* ločevale, ne bi pa povedale *ničesar* o njih. […] [P]ridobitev je torej za zdaj primerjalna, ne pa kvalitativna: *večja* jasnost namesto jasnosti drugega tipa. (Allison 18, 24)

Rezultati računalniške analize[4] ne odkrivajo novih pomenov v podatkovni zbirki romanov (tj. vhodnih podatkov), pač pa s kvantitativno širšim pregledom predmeta raziskave pripomorejo k »*večji* jasnosti«. Problem nesemiotičnega procesiranja informacij ostaja potemtakem kljub relevantnosti kvantitativno povečanega obsega analize[5] nerešen.

Aarseth poskuša pojasniti delovanje semiotičnih in nesemiotičnih učinkov kibernetskih sistemov s konceptom emergentnih lastnosti. Vendar se po Aarsethu (40, 124) emergentno obnašanje algoritmičnega literarnega teksta ne razlikuje povsem določno od preproste napake v delovanju ki-

bernetskega sistema.[6] Tako ostaja koncept emergentnih lastnosti potencialno uporaben pri pojasnjevanju (dis)kontinuitete med fiziko, kemijo in biologijo, medtem ko opomenjanja na ravni družbe in kulture ne moremo razložiti z apolitičnim konceptom diskontinuitete med različnimi redi realnosti. (Sistemska teorija in radikalni konstruktivizem jemljeta dinamiko družbenih odnosov kot dejstvo, s tem pa jo tudi reducirata na »nepomembno« vprašanje; foucaultovska tradicija predstavlja nasprotni argument.)[7]

Kaj je znak?

Vprašanje semiotičnih ravni različnih umetnih in naravnih pojavov sega nazaj k definiciji znaka. Strukturalistična semiologija od Saussurja naprej razume (lingvistični) znak kot dvojnost znaka in referenta, dvojnost, ki se zrcali v odnosu med označevalcem in označencem (tj. med označevalnim izrazom in mentalno predstavo referenta). Povezava med elementoma je arbitrarna in konvencionalna. Saussurjevska tradicija predpostavlja sistemski kod, tj. *langue*, ki je vselej že navzoč pri interpretaciji določenega znaka. Zato »naravni« znaki, tj. označujoče oblike, ki jih niso izdelali ljudje,[8] pravzaprav ne obstajajo. Če algoritmi naključno ali nerazumljivo producirajo pojave, ki jih lahko prepoznamo kot znake, ki naj bi jih interpretirali ljudje, te entitete niso zares znaki, pač pa zgolj »brezpomenske« materialnosti.

A to ne drži: pomislimo na primer na znanstvene raziskave, ki že po definiciji vnašajo pomene v naravne pojave. Zato potrebujemo alternativno koncepcijo znaka, ki jo najdemo v tradiciji semiotike, ki jo je osnoval Charles S. Peirce. Po Peirceu je znak tisto, kar je interpretirano kot znak (Geppert, *Der realistische Weg* 40, 80). Na primer značilen indeksikalni znak je dim, ki označuje ogenj. Povezava med znakom in objektom ni konvencionalna (na primer prek *langue*), ampak je posledica obstoječega dejstva, ki se potrjuje v interpretaciji. Peirceovski znak je trojna relacija med reprezentamenom (tj. znakom), objektom in interpretantom, ta pa je ireduktibilna enota, ki jo sestavlja nov znak, ki interpretira osnovni znak.[9] Peirce, ki je delal na področjih kemije in geodezije, tj. ki je bil po poklicu znanstvenik, predlaga semiotično teorijo, ki je uporabna pri raziskovanju naravnih pojavov. Znaki lahko nastanejo na kakršen koli način, tudi, kot rečeno, z računalniško napako.

Pragmticizem, semiotika in teorija znanstvenega raziskovanja

Semiotika se poveže s teorijo raziskave in pragmaticizmom v Peirceovih spisih iz obdobja po letu 1902 in v njegovi tretji, zadnji razlagi znakov iz

let 1906–1910 (Atkin). Semiotika postane, kot pravi Burch, tesno povezana s standardno koncepcijo znanstvene metode, ki je metoda gradnje hipotez, izpeljave posledic iz teh hipotez in nato eksperimentalnega preverjanja teh hipotez (ekonomika raziskovanja vedno usmerja ta proces). V tem obdobju je Peirce vse bolj pojmoval svoje tri tipe logičnega sklepanja kot faze ali stopnje znanstvene metode. Na primer abdukcija je v njegovi razširjani in posplošeni definiciji sklepanje, ki provizorično sprejema in vodi v razlagalno hipotezo, da bi jo nato preverilo. Abdukcija je logična izpeljava razlage ali vsaj nečesa, kar pojasnjuje oziroma naredi pričakovano neko informacijo, ki je bila prej »presenetljiva«, v okvirih v danem trenutku dostopne vednosti. Dedukcijo pa je Peirce začel obravnavati kot izpeljavo sklepov o tem, katere opazovanju dostopne pojave je mogoče pričakovati, če je hipoteza pravilna. Indukcija pa je dobila pomen celotnega procesa eksperimentiranja in interpretacije, ki poteka kot podpora preverjanju hipoteze.

»Presenetljiv« pojav je torej začetna točka vsake znanstvene raziskave. Sproži »abduktivno« sklepanje, ki ponudi hipotezo, ki ji sledi dedukcija in nato najdražji del raziskave, testiranje (Peirceova indukcija). Peirce pravzaprav izenači abdukcijo s pragmaticizmom v celoti in z ekonomiko raziskave – če namreč hipoteze ni mogoče preveriti, ne nastane nova vednost, to pa z vidika pragmaticizma falsificira hipotezo (gl. »Abduction« v *The Commens Dictionary*). V tej luči se pokaže, da je v primerjavi s saussurjevsko semiologijo Peirceov model znaka vsekakor primernejši za razlago različnih semiotičnih in potencialno predsemiotičnih področij, kolikor so relevantna za človeška dejanja. V okviru Peirceove teorije se slavni »dve kulturi« pravzaprav spojita.

Peirceova pragmaticistična teorija znakov kot poetološki model

Je mogoče Peirceovo semiotiko, ki je, kot je bilo pokazano, usklajena z njegovo znanstveno metodologijo, prenesti na umetniško dejavnost? Oglejmo si primer, ki eksplicira strukturno skladnost med Peirceovo pragmaticistično semiotiko in (implicitno) poetiko literarnega realizma 19. stoletja. Povezava z znanstveno teorijo raziskovanja, ki stopi v ospredje v Peirceovih poznih spisih, potemtakem ponudi možni odgovor na zagato ustvarjanja pomena z znaki, ki so neodvisni od vnaprej danega koda. Nečloveški (proto)znaki – naravni in tisti, ki jih izdelujejo aparati – se torej (potencialno) znova vključijo v kulturo prek posredovanja velike romaneskne tradicije.
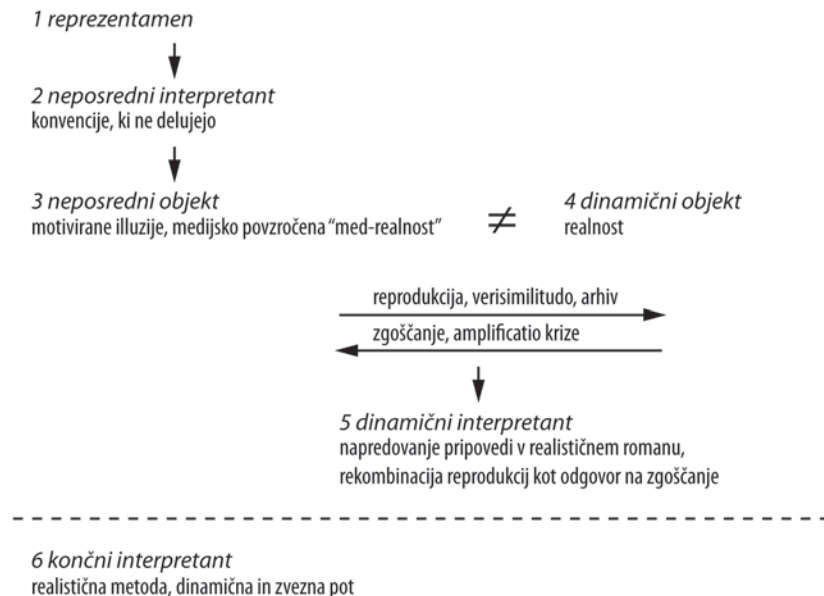
Nemški komparativist Hans Vilmar Geppert v monografiji *Der rea-
listische Weg* (*Realistična pot*, 1994) prepričljivo pokaže na podobnost med
Peirceovim pragmaticizmom in literarnim realizmom 19. stoletja,[10] kot
se razkriva na ravni njunih teoretskih ogrodij. Upoštevati je treba, da sta
oba pojava zgodovinsko sočasna, da črpata iz istih virov, pri čemer pa
Peirceova misel ni neposredno vplivala na realistične avtorje in teoretike
literature 19. stoletja. Poskus povezave Peirceove tradicije z realizmom,
ki bi hotel zasnovati splošno veljavno »logica utens«[11] na področju semi-
otike, se nujno sooči z dvema izzivoma. Najprej je treba upoštevati uvide
dekonstrukcije, ki je podvomila o teoretski neprotislovnosti pojmovanj
»realnosti« na področju humanistike. Drugi izziv pa je v tem, kako razlo-
žiti t. i. »realistični« način pisanja, ki ga običajno povezujemo z načelom
verisimilitudo itn. Oba potencialna problema morata biti zadovoljivo reše-
na, če želimo predlagati Peirceovo semiotiko kot (realistično) diskurzivno
prakso, ki je aktualna tudi danes in ki presega zgolj zgodovinsko podob-
nost med dvema diskurzivnima regularnostma v 19. stoletju.

Realistična semiotika

Peirceovski odgovor na uvide dekonstrukcije je v tem, da jih selektivno
»vključi« v celoto pragmaticistične teorije znaka. Geppert (*Der realistische
Weg* 79) opozori na podobnost med peirceovsko neskončno semiozo in
Derridajevim konceptom »razlíke«, a doda, da »bi bilo za Peircea nesmi-
selno resnico načelno odriniti v 'odsotnost'; četudi ni nikoli neposredno
'navzoča', zlasti ne v katerem od sistemov […], ni dosegljiva na noben
drug način kakor skoz jezik-znake«.

Pragmaticizem je oblika semiotike, ki dobi svoj pomen in *raison d'être*
tedaj, ko običajni znaki odpovedo, ko – kakor v znanostih – nastopi »pre-
senetljiv« pojav in zahteva razlago ali ko se – kakor v literarnem realizmu
– ljudje soočajo z neposredno krizo znakov, torej ko pride do nasilnega
trka znakov in dejanskosti. Odgovor dekonstrukcije je nesmiseln – ne-
uporaben –, saj zgolj potrdi *status quo* krize. Po Peirceu je pomen znaka
človeška navada (utemeljena v skupnosti in izrecno zasnovana kot trajno
veljavna). Če je potreben nov in vsaj potencialno splošno veljaven odnos
do dejanskosti, ga je treba nekako rekonstruirati, četudi vpričo kupa ruše-
vin, ki ga gleda Benjaminov angel zgodovine. Slavni »Peirceov princip«[12]
se glasi takole: »Preudarite, katere učinke, katerih praktično relevantnost
si je mogoče zamisliti, pripisujemo objektu našega pojma. Tedaj je naš
pojem teh učinkov celota našega pojma objekta.« (Peirce 96, 129) Pomen
presenetljivega fragmenta je njegov interpretant (učinki, katerih praktično
relevantnost si je mogoče zamisliti), ki je nujno potreben v dani situaciji.

Po Geppertu (*Der realistische Weg* 54, 152) je literarni realizem umetnost interpretanta, ki se poraja iz neposredne izkušnje semiotične – in potemtakem eksistencialne – krize. Peirceov šeststopenjski model znaka – reprezentamen, neposredni interpretant, neposredni objekt, dinamični objekt, dinamični interpretant in končni interpretant – Geppert takole prevede v model realizma kot »poti«. Na začetku »realistične poti« stoji neposredni interpretant kot prva interpretacija reprezentamena, znaka. To so disfunkcionalne konvencije, ki povzročajo neposredni objekt, tj. »motivirane iluzije«, kakršne so na primer avtodestruktivna pričakovanja Eme Bovary o svetu.[13] Medijsko povzročena »med-realnost« – v krizi, ko ne učinkuje, kot bi morala – silovito trči ob dano stanje sveta, ob dinamični objekt. Kriza je »ojačana« (*amplificatio*) prek reprodukcije in zgoščanja kulturnih kodov, ki so na voljo, in njihovih učinkov v junakinjinih iluzijah – in učinkujoč nanje. Dinamični interpretant[14] je pripovedni lok realističnega romana. Sestavlja ga množica neposrednih interpretantov s pripadajočimi neposrednimi objekti v eksperimentalnih rekombinacijah. Prav kombiniranje neučinkovitih kulturnih kodov v nove razpostavitve utemeljuje realistično *verisimilitudo*: realizem ne reproducira dejanskosti, pač pa diskontinuirani arhiv kulturnih kodov (na primer kakor ga opisuje Foucaultova arheologija). Končni interpretant je metoda sama, tj. realizem, ki je nujno dinamična pot, ne pa na primer statična prostorska konstelacija.[15]

1 reprezentamen

2 neposredni interpretant
konvencije, ki ne delujejo

3 neposredni objekt   ≠   4 dinamični objekt
motivirane illuzije, medijsko povzročena "med-realnost"   realnost

reprodukcija, verisimilitudo, arhiv
zgoščanje, amplificatio krize

5 dinamični interpretant
napredovanje pripovedi v realističnem romanu,
rekombinacija reprodukcij kot odgovor na zgoščanje

6 končni interpretant
realistična metoda, dinamična in zvezna pot

Slika 1: Peirceov šeststopenjski model znaka in vzporedna shema diskurza literarnega realizma

Peirceove nadaljnje semiotične distinkcije omogočajo še podrobnejšo eksplikacijo realističnega diskurza, kar še dodatno podkrepi analogijo med realizmom in pragmaticizmom. Na ravni reprezentamena – gre za različne načine dojemanja znaka[16] – so za realizem značilni sinznaki, posamezni edinstveni konkretni pojavi, ki zahtevajo razlago. Ker se Peirce zaveda, da so znaki vsepovsod – saj sprejema Kantovo transcendentalno enotnost apercepcije, ki pokriva področje znakovnega –, so pravi nezakodirani pojavi pravzaprav zelo redki. Pogosteje so singularni znaki replike legiznakov, tj. znakov, ki temeljijo na kodih. Za realizem je značilno, da »izkorišča« oziroma »izrablja« (»verbraucht«) obstoječe kode. Realizma ni mogoče kodirati, ker ne izdeluje novih legiznakov (kakor na primer literarni simbolizmi): legiznak *in potentia* je urejen arhiv sinznakov, ki se upira poenotenju. Geppert govori o »retrosemiozi«, da bi poudaril neenovito regularnost arhiva kodov kulture, ki jih literatura reproducira.[17]

Indeksi, ki jih kot del Pierceove najbolj znane triade ikona – indeks – simbol določa eksistenčna vez med znakom in objektom, so značilni pojav realističnega diskurza. V nasprotju z ikono, ki je podobna objektu, indeks ne temelji na značilnostih reprezentamena, in v nasprotju simbolom, ki je odvisen od svoje interpretacije v interpretantu, ni odvisen od česa drugega. Indeks mora biti presenetljiv, da bi se sploh ločil od brezpomenske dejanskosti, ki ga obdaja. V realističnem diskurzu simboli – na kodu temelječe konceptualizacije objektov – »degenerirajo« v ikone, tj. v podobe neogibne krize. Edini način, ki bi omogočal interpretacijo napake v delovanju sistemskih urejenosti objektov, je ta, da napako privzamemo kot ikonični znak disfunkcionalnosti kot take. V realizmu dejanskost ni vnaprej privzeta, pravzaprav je resničnost manifestacija nesprejemljivih interpretacij, ki zahtevajo popravke. V tej situaciji indeksi stopijo v vlogo »vektorjev pozornosti«, katerih naloga je, da krmarijo mišljenje skoz krizno ikonično razpršitev arhiva simbolov. Indeksi ponudijo izhod. »Metonimizacija metafore« in »realistični mediji« sta značilna realistična pojava: na primer denar ni več del simbolnega reda, ampak začne označevati edinstveno in konkretno situacijo, ki je del kontinuitete sveta. Realističen je tok dejanskosti skoz čas, ne pa njen odsev (ki je po Geppertu zgolj ikona krize). Realistični simbol ne obstaja, mogoč je le simbol *in potentia* kot večsmerni indeks. Red v omrežju indeksov je ikoničen, dodatno pa je premeščen na metapoetično raven: Geppert imenuje to semiotično premestitev »metaforična alegorija«, katere osrednji primer je podoba (realistične) »poti«.[18]

Geppert ugotavlja, da je realizem umetnost interpretanta. Zato odnos realističnega znaka do, kot ga Peirce imenuje, »{Končnega/Neposrednega} Interpretanta«,[19] nikoli ni zagotovljen ali celo dan vnaprej. Realizem sestavljajo propozicije, ki jih je mogoče potrditi ali zanikati. Realistični mediji

so trditve o dejansko obstoječem, ki so kot take neposredno aktualne. Dicent znaki[20] so del zvezne verige izpeljav. Realistični argument, tj. znak z vidika pravilnega ali nepravilnega sklepanja,[21] je »nepopolna indukcija«, progresivno preverjanje hipotez iz Peirceove teorije raziskovanja. »Pozni realizem« praviloma zaide v *aporije*, brezizhodne situacije, a pri tem ne prestopi meja z drugimi načini delovanja znakov.

»Pragmatična pripoved« in pozni realizem

Prikaz tega, kako Geppert interpretira realistične romane s peirceovsko metodo, presega okvir tega članka. »Pragmatična pripoved« (*pragmatisches Erzählen*) se namreč dotika vseh razsežnosti realističnega teksta. Geppert ugotavlja celo regularno semiotično gibanje v samih naslovih realističnih romanov, na primer dinamično kontinuirano gibanje pomena, zakodiranega v urejeni par rdeče in črne barve v naslovu Stendhalovega romana. Nekakšna vzvratna perspektiva se osredotoča na »pozni realizem«, ki je po Geppertu na robu realističnega diskurza. Pokažemo lahko, da je Dickensov roman *Hard Times* (Trdi časi*,* 1854) arhiv glasov v Bahtinovem smislu, tj. arhiv glasov junakov in različnih pripovedovalcev (Vaupotič). Geppert ugotavlja komunikativno diskontinuiteto v odnosu med umetnino in bralcem v Dickensovem romanu *Our Mutual Friend* (Naš skupni prijatelj, 1864–1865), kjer skoraj vso prvo polovico romana bralec ne ve dovolj, da bi lahko razumel motivacijo junakov (Geppert, *Der realistische Weg* 463). Tako je tudi bralec ločen od glasov v romanu – postavljen jim je ob bok. V poznorealističnem romanu je vsak glas avtonomen, enakovredno postavljen poleg vseh ostalih, nemogoče ga je reducirati in vklopiti v poenotujoč sistem, kakor na primer to poskuša Zola v svoji shemi naturalizma. Roman postane prostor razpršitve, ki se postavlja nasproti poenotenju in celo gibanju.

To na videz nasprotuje Geppertovi tezi, da se prostorska razpršitev, ki je znak krize, urejeno spreminja v pragmaticistično kontinuirano zaporedje, ki je podobno znanstvenemu raziskovanju. Tako ostaja Geppertov model večznačen, ko ga poskušamo uporabiti kot odgovor, ki bi bil aktualen tudi danes. Roman je zvezna pot od krize h krizi, pri čemer so vse krize porojene iz retrosemiotične konstelacije disfunkcionalnih kodov. Pomen nastaja skoz alegorijo, kot jo enigmatično pojasni Walter Benjamin:

> Kakor mater zaživi v svoji polni moči šele tedaj, ko se krog otrok, spodbujenih z občutjem njene bližine, sklene okoli nje, tudi ideje zaživijo šele tedaj, ko se okoli njih zberejo ekstremi. Ideje oziroma, če naj uporabimo Goethejev izraz, ideali so faustovske »matere«. (Benjamin, *Ursprung*)

Videti je, da je pozni realistični roman, na primer *Hard Times*, hkrati uprostorjen arhiv in linearna pripoved – linearno napredovanje je vsiljeno v arhiv glasov, ki pa je prepojen z dinamičnimi silami (Adorno jih je označil za »magične«),[22] ki zahtevajo konkretne in hkrati pragmatične odgovore.

OPOMBE

[1] Aarseth ne omejuje kiberteksta na računalniško manipulacijo teksta, saj upošteva vse vrste mehaničnih besedilnih strojev, celo na primer *Cent mille milliards de poèmes* (Sto tisoč milijard pesmi, 1961) Raymonda Queneauja.

[2] Koncept arbitrarnosti tu ni uporabljen v strogem saussurjevskem smislu, saj kibertekst ni nujno družben pojav.

[3] »Čeprav lahko računalnik predstavlja vse mogoče vrste medijev, se pravi, tudi zapisano besedilo, ne deluje na ravni predstavljene informacije, temveč na predhodni, čisti in zato brezpomenski razliki med bivajočim in ničem.« (44) »Števila v […] [Turingovi] konstrukciji ne določajo količin stanja, temveč opisujejo in umetno razpirajo nekaj enakega. Nič in ena si stojita v identiteti identitete in razlike nasproti, kakor tudi sovpadata v enem, kar je v nasprotju z običajno matematiko, v kateri je treba ločevati med nič in ena. Kdor postavlja stroj v polje numeričnega, zgreši eno od poant turingovske iznajdbe.« (45)

[4] Ena tovrstnih metod je analiza osnovnih komponent v biologiji (gl. Cavalli-Sforza, Menozzi in Piazza 39 isl.).

[5] Kvantitativni preskok v hitrosti procesiranja informacij, ki je nastopil z računalnikom, je sam eden od »obrazov« dvojnosti signala in pomena. Ljudje lahko zdaj vidimo vzorce, ki jih prej nismo mogli videti in zato tudi ne vključiti v naše razumevanje sveta. Kvantitativni prispevek se s tega vidika preobrača v kvalitativnega, in sicer na primer z redefinicijo človeka skoz »tehno pogled« (gl. Bovcon).

[6] To nejasnost je najti tudi v razliki med ontološkim in epistemološkim emergentizmom oziroma med »močnim« in »šibkim« emergentizmom (O'Connor in Wong).

[7] O emergentizmu in semiotiki gl. tudi Brier (1916 isl.).

[8] Ekokritični pristop poskuša razširiti polje zavesti na neljudi, na primer na domače živali, kar pa zgolj premakne točko razcepa med semiotičnim in nesemiotičnim.

[9] »Znak ali reprezentamen je nekaj, kar nekomu nekaj pomeni v nekem oziru ali možnosti. Nekoga nagovarja, tj. v mislih tega človeka ustvari ekvivalenten ali morda razvitejši znak. Ta znak, ki ga ustvari, imenujem *interpretant* prvega znaka. Znak nekaj označuje, namreč svoj *objekt*. Stoji namesto tega objekta, a ne v vseh pogledih, ampak v odnosu do neke ideje, ki sem jo včasih imenoval *temelj* za reprezentamen. 'Idejo' je treba tu razumeti v platoničnem smislu, kakor jo pogosto razumemo v vsakdanjem govoru: v smislu, ko rečemo, da nekdo dojame idejo nekoga drugega ali da se nekdo, ki se spomni, o čem je razmišljal pred časom, spomni iste ideje, in da ima nekdo, ki nadaljuje z razmišljanjem o nečem, recimo vsaj za desetinko sekunde, kolikor se misel v tem časovnem intervalu strinja sama s seboj, *podobno* vsebino, se pravi, isto idejo in ne novo idejo v vsakem trenutku tega intervala.« (»A Fragment«, CP 2.228, c. 1897 v *The Commens Dictionary*).

[10] Geppertova konceptualizacija literarnega realizma ne vključuje naturalizma.

[11] T. i. »uporabljana logika« kot nasprotje pojma *logica docens*, logike, ki je priučena s študijem (gl. »Logica utens« v *The Commens Dictionary*). Peirceovska formulacija je primerljiva s Foucaultovim pojmom diskurzivne formacije.

[12] Tako ga je poimenoval avtor izraza »pragmatizem« William James (Hookway).

[13] Po Geppertu (*Der realistische Weg* 129) Barthesov »učinek resničnosti« (»éffet du réel«) reducira celoto realističnega diskurza na eno samo sestavino. »Ta učinek pa nastaja le tedaj, ko se v pripovednem znaku izolira eno samo posamično denominativno […] nanašanje na objekt. Druge funkcije, na primer zgodovinske konkretizacije, pa tudi funkcije refleksije, kritike, napredovanja, 'porabljanja' kodov ga ukinjajoč presegajo [heben ihn auf].«

[14] Geppert ga imenuje »aktualni interpretant«, da bi poudaril razliko v odnosu do dinamičnega objekta in s tem olajšal branje teksta.

[15] Na tem mestu se razkrije razlika med Peirceom in Foucaultom: foucaultovska prostorska razpršitev arhiva postane v Peirceovi semiotiki nesprejemljiva podoba krize, ki zahteva odločen korak po zbrani »poti«.

[16] Triada: kvaliznak – sinznak (token) – legiznak (tip). Razlaga vseh kategorij bi presegla namen tega članka.

[17] Arhiv brez strogo sistematičnega reda je skladen s Foucaultovo zasnovo pojma arhiva v *Arheologiji vednosti.*

[18] V poslovilnem predavanju na Univerzi v Augsburgu *»Prodigium« und Chaos der »Zeichen in der Welt«. Wilhelm Raabe und die Postmoderne* Geppert pokaže na možnost alegorične imaginacije, podobne postmodernističnim diskurzivnim postopkom (razume jo v pomenu zgodnjega Benjamina), na sami poetični ravni.

[19] Uporabljen je, kot da bi bil hipotetično pravzaprav neposredni interpretant, čeprav je postavljen v oddaljeno prihodnost kot nekakšna heglovska *Aufhebung* celotne semioze.

[20] Triada odnosov znaka do končnega interpretanta: rem – dicent – argument.

[21] Geppert navede triado znakov z vidika pravilnosti logične izpeljave: abdukcija – indukcija – dedukcija.

[22] »[T]eološka motivacija imenovanja reči z njihovimi imeni teži k naivni predstavitvi golih dejstev. Če bi se izrazili drastično, bi bilo mogoče reči, da je […] [Benjaminova] razprava na križišču magije in pozitivizma.« (Adorno 129)

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Peirce's Theory of Inquiry as a Poetological Model: The Case of Literary Realism

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The article presents the philosophy of Charles Sanders Peirce as a bridge between the so-called hard sciences, on the one hand, and the humanities and the arts, on the other. By following Hans Vilmar Geppert's theory of literary realism, that is, his Peircean 'realist semiotics', a scientific methodology can be traced in a poetological model. Geppert's application of semiotics to literary realism and to general issues of communication offers two original insights: besides re-evaluating the historical realism of the nineteenth century, his theory of inquiry as the pragmaticist response to an immediate communicative crisis proposes a viable poetological model for today's artistic needs as well, thereby making the dialogue between science and the humanities or arts possible once again.

Keywords: semiotics / realism / science / the humanities / Peirce, Charles Sanders / Geppert, Hans Vilmar

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Semiotics and machines

The problem of the semiotic status of mechanically produced phenomena is a distant echo of Charles Percy Snow's idea of the mutual incomprehension dividing the 'two cultures', that is, (natural) scientists and (literary) 'intellectuals'. I will address the issue by posing the following question: How does a human being relate to, and interpret, the signs that are produced 'mechanically', that is, by a machine, in a technological process that employs scientific findings or some other algorithms to 'create' new signs without any immediate human intervention or control?

Espen J. Aarseth's groundbreaking theorization of cybertext as the new media textuality produced by 'textual machines'[1] notes the problematic 'signal-semiotic threshold' that emerges within the cybernetic text, which partially escapes the author's control by proposing a virtually un-

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limited array of readings according to some specific rules that are an inseparable part of the text. The self-manipulating textual device splits the output into a duality of the signal – the materialized entity excluded from the semiotic – and the signifying effect of the output on the reader-user. As opposed to, say, cinema, where the dual existence of a film tape and a projection is trivial, in a cybertext the relationship between the (hidden) code and the expressive level is 'arbitrary'. The expressive level escapes the author's control, partly leaving the domain of interhuman communication.[2] For Aarseth (22, 29, 31), the semiotic aspects of a cybertext are limited to, first, the observation of human reception of the system (that is, to the ways in which the user transforms signals into meaningful signs), and, second, to the implied teleology, which consists of the intentions of the constructor of the textual machine, as they are accessible, say, to an analysis of algorithms. David Link (85), a new media artist and theorist, reaches a similar conclusion: the user of a textual adventure game has to obtain a 'linguistic incompetence' (*Sprach-Inkompetenz*), or to accept a 'mental defect' (*Behinderung*), to be able to communicatively enter the realm of a computer game. The source of this apparent communicative vagueness is the fact that a computer, which is essentially a Turing machine, does not function on the level of represented information but on a pre-semiotic stage of separating one homogeneous materiality into artificially distinct states.[3]

Such problematic issues pertain not only to artistic practices, but also to digital humanities. The first 'Pamphlet' of the Stanford Literary Lab, directed by Matthew Jockers and Franco Moretti, considers results of computer based quantitative analyses of literary genres in a self-critical manner.

> [The computer-generated] image of genre [that is, the diagrammatic presentation of variations within databases] was clearly also incomplete, because differential features may tell us all we need to know in order to demarcate one form from another, and yet very little about that form's inner structure. If all men in an audience wore pink, and all women blue, the colours would differentiate them *perfectly*, and tell us *nothing* about them. […] [F]or the time being, the gain seems to be comparative more than qualitative: great*er* clarity, rather than clarity of a different type. (Allison et al. 18, 24)

The computational output[4] does not disclose new meanings explaining the database of novels, the input data; instead, it provides 'great*er*' clarity, that is, quantitatively greater mastery of the phenomenon at hand. It appears that the impasse of the non-semiotic information processing remains unchallenged – even if we consider the importance of the vast quantitative increase in the scope of the analysis.[5]

Aarseth proposes to solve problems concerning the semiotic and the non-semiotic features of a cybernetic system by introducing the idea of emergent properties. However, he does not seem to clearly distinguish the emergent behaviour from a malfunction of the cybernetic system in an algorithmic literary work (40, 124).[6] The concept of emergent properties may be of value in explaining (dis)continuities between physics, chemistry and biology, while the signification that becomes relevant at the level of society and culture does not seem to be available to the apolitical notion of a discontinuity between different orders of reality. (System theory and radical constructivism take the dynamics of society for granted and thus reduce them to an 'insignificant' question; the Foucauldian tradition exemplifies the counterargument.)[7]

What is a sign?

The question of the semiotic levels of various artificial and natural phenomena refers back to the definition of a sign. The structuralist semiology from Ferdinand de Saussure onwards considers a (linguistic) sign to be the duality of a sign and a referent, the duality mirrored in the relation between the sign's signifier and the sign's signified. The link between both elements is arbitrary and conventional. Saussurian tradition postulates a systematic code, *langue*, which is always already there as a sign is being interpreted. 'Natural' signs – that is, features not produced by communities of humans[8] – therefore do not exist. It seems that if algorithms randomly, or incomprehensibly, produce phenomena that can be identified as signs for humans to interpret, then these entities are not actually signs, but mere 'insignificant' materialities.

This is obviously not the case. Scientific research, which by definition supplies meaning to natural phenomena, is a case in point. Hence, an alternative conception of sign is needed. Indeed, the tradition of semiotics founded by Charles Sanders Peirce provides such an alternative. According to Peirce, a sign is what is interpreted as a sign (Geppert, *Der realistische Weg* 40, 80); for instance, a typical indexical sign is smoke that stands for fire. The link between the sign and the object is not a convention (such as *langue*), but the consequence of an existential fact, which is affirmed in the interpretation. Peircean sign is a genuine triadic relation of the representamen (that is, the sign), the object and, most importantly, the interpretant (the irreducible unit consisting of a new sign interpreting the original sign).[9] As a practicing chemist and geodesist, a 'hard' scientist by occupation, Peirce proposes a semiotic theory suitable for research into natural phenomena.

Signs may be produced in any way imaginable, including – concerning the previous examples – by some computer (mal)function.

Pragmaticism, semiotics, and the theory of scientific inquiry

In Peirce's late period, and as part of the third and 'Final Account' of signs (1906–1910), semiotics is linked to Peirce's theory of inquiry and to pragmaticism (see Atkin). The semiotic becomes closely connected with

> the standard idea of scientific method […] as being the method of constructing hypotheses, deriving consequences from these hypotheses, and then experimentally testing these hypotheses (guided always by the economics of research). […] Peirce increasingly came to understand his three types of logical inference as being phases or stages of the scientific method. For example, as Peirce came to extend and generalize his notion of abduction, abduction became defined as inference to and provisional acceptance of an explanatory hypothesis for the purpose of testing it. Abduction is […] inference to some explanation or at least to something that clarifies or makes routine some information that has previously been 'surprising,' […] given our then-current state of knowledge. Deduction came to mean […] the drawing of conclusions as to what observable phenomena should be expected if the hypothesis is correct. Induction came for him to mean the entire process of experimentation and interpretation performed in the service of hypothesis testing. (Burch)

The 'surprising' phenomenon is the starting point of every scientific inquiry, which triggers 'abductive' reasoning that proposes a hypothesis, which is followed by deduction and the most costly part of research, the testing (Peirce's induction). Peirce in fact equates abduction with pragmaticism as such and with the economics of inquiry – for if a hypothesis cannot be tested, no knowledge is ever gained, which, from the pragmaticist point of view, logically invalidates the hypothesis (see the term 'Abduction' in *The Commens Dictionary*). Compared with Saussurean semiology, Peircean model of sign is obviously more apt to explain the different semiotic and possibly pre-semiotic domains, as far as they are relevant to any actions by the humans. In Peirce, the famous 'two cultures' virtually melt.

Peirce's pragmaticist theory of signs as a poetological model

Is it possible to apply Peirce's semiotics, which is, as we have seen, compatible with his scientific methodology, to artistic practice? The following example should demonstrate a structural compatibility between

Peirce's pragmaticist semiotics and the (implicit) poetics of nineteenth-century literary realism. The link to a scientific theory of inquiry, stressed in Peirce's late works, proposes a possible answer to the dilemma of the significance of signs that do not depend on a pre-existing code. The non-human (proto)signs – natural signs as well as those produced by apparatuses – are thus (potentially) reintroduced into culture through the great novelistic tradition.

In his 1994 monograph *Der realistische Weg* (The Realist Way), the German comparative literature scholar Hans Vilmar Geppert successfully demonstrates a similarity between Peirce's pragmaticism and the literary realism of the nineteenth century[10] at the level of their theoretical frameworks. Both phenomena are historically simultaneous and based on the same sources; however, Peirce's thought did not directly influence authors and theorists of nineteenth-century realism. Should a project of linking the Peircean tradition with realism attempt to present a generally valid *logica utens*[11] within the domain of the semiotic, two challenges would necessarily be involved: first, the deconstructive approaches would need to be accounted for, since they have introduced skepticism towards all conceptions of 'reality' throughout the humanities; second, the so-called 'realist' mode of writing, including verisimilitude, should be addressed. Both problems should be tackled if Peircean semiotics is to be reinterpreted as a (realist) discursive practice that transcends a mere historical similarity between two nineteenth-century discursive regularities.

The realist semiotics

The Peircean answer to the challenges of deconstruction is a selective 'inclusion' of deconstruction into the whole of the pragmaticist theory of the sign. Geppert points to an analogy between Peircean infinite semiosis[12] and Derrida's notion of 'différance', while noting that 'for Peirce to expel the truth categorically in the "absence" would be a meaningless idea; even if it is never immediately "present", especially not in any system (in any additional similarity), it nevertheless cannot be grasped in any other way than through language and signs'.[13]

Pragmaticism is a kind of semiotics that gains relevance only when the normal signs fail, when – as in science – a 'surprising' phenomenon is encountered and demands explanation, or when – as in literary realism – people are faced with an imminent crisis of signs, that is, when signs clash violently with reality. The deconstructive answer is meaningless – useless – insofar as it merely affirms the *status quo* of the crisis. For Peirce, the

meaning of a sign is a human habit (grounded in the community and intended to last indefinitely). If a new and at least potentially generally valid relationship towards reality is needed, it has to be somehow reconstructed, even while facing the famous rubble-heap of Walter Benjamin's Angel of History. The 'principle of Peirce'[14] states the following: 'Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object.' (Peirce 293) The meaning of a surprising fragment is its interpretant (conceivable practical effects), which is imminently needed in a given situation.

For Geppert (54, 152), literary realism is the art of the interpretant, stemming from an immediate experience of a semiotic, and therefore existential, crisis. Peirce's six-level model of the sign – representamen, immediate interpretant, immediate object, dynamic object, dynamic interpretant, final interpretant – translates into realist discourse as follows: The 'realist way' starts from the immediate interpretant as the first interpretation of the representamen evoking the conventions in a dysfunctional state, which produces the immediate object, 'the motivated illusions',[15] such as Emma Bovary's self-destructive expectations about the world. It is the media-induced 'inter-reality' that clashes violently with the given conditions, the dynamic object. The crisis is 'amplified' in the reproduction and condensation of available cultural codes and their effects in – and on – the hero's or heroine's illusions. The dynamic interpretant[16] is the narrative arch of the realist novel. It consists of a multiplicity of immediate interpretants with their immediate objects in experimental recombinations. It is in the recombinant constellations of the dysfunctional cultural codes that the realist verisimilitude is grounded – realism does not reproduce reality but the discontinuous archive of cultural codes (as conceptualised by, say, Foucauldian archaeology). The final interpretant is the method itself, realism as a dynamic and continuous path that stands in stark opposition to a static spatial constellation.[17]

1 *representamen*

↓

2 *immediate interpretant*
dysfunctional conventions

↓

3 *immediate object*   4 *dynamic object*
motivated illusions, media-induced inter-reality   ≠   reality

reproduction, verisimilitude, archive
⟶
⟵
condensation, amplificatio of the crisis

↓

5 *dynamic interpretant*
narrative progression of the realist novel,
recombination of reproductions as a response to condensation

- -

6 *final interpretant*
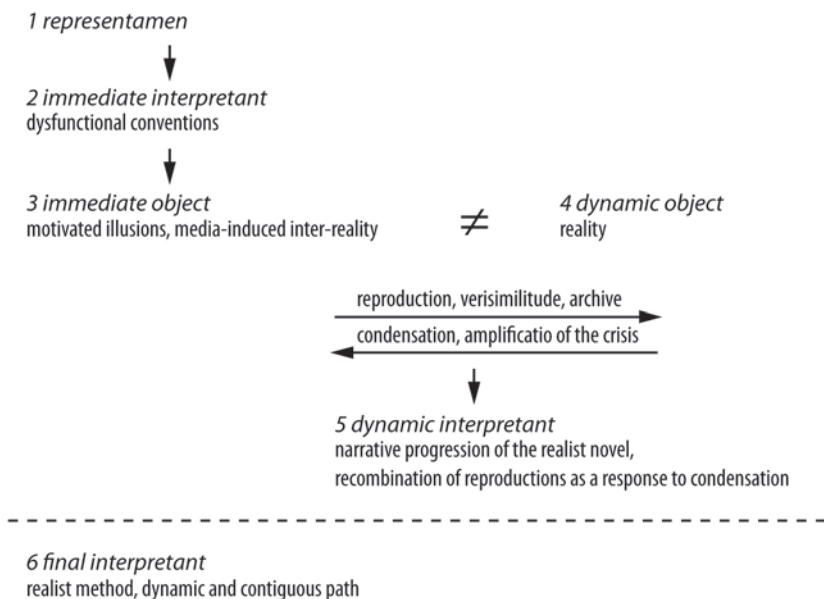realist method, dynamic and contiguous path

Figure 1: Peirce's six-level sign model in alignment with the scheme of the discourse of literary realism

Peirce's further semiotic differentiations facilitate an even more detailed explication of realist discourse, which additionally substantiates the analogy between realism and pragmaticism. At the level of the representamen – the different ways of perceiving the sign[18] – realism is constitutively linked with sinsigns (tokens), singular and uniquely concrete phenomena that demand interpretation. In fact, since Peirce is aware of the ubiquity of the semiotic – he accepts the Kantian 'transcendental unity of apperception', which covers the domain of the semiotic (see Geppert, *Der realistische Weg* 40, 11) – the genuine non-encoded phenomena that a human might need to interpret are very rare, as singular signs are utterances of legisigns (types), signs that depend on codes. Realism characteristically 'exploits' and 'uses-up' ('verbraucht') the existing codes. Realism cannot be coded, since it does not produce new legisigns (as literary symbolisms do): the legisign *in potentia* is an ordered archive of sinsigns that resists homogenisation. Geppert speaks of 'retro-semiosis' to highlight the non-unified regularity of the archive of cultural codes reproduced in literature.[19]

The indices – which, as part of the most well known Peircean semiotic triad, that of icon, index and symbol, are determined by an existential link between the sign and the object – are characteristic of realist discourse. In opposition to an icon, which resembles the object, or a symbol, which

depends on being decoded through the interpretant, an index is not based on any feature of the representamen. An index needs to be surprising in order to be distinct from the insignificant reality that surrounds it. In the realist discourse the symbols – the code-based conceptions of objects – 'degenerate' into icons, the images of imminent crisis. The only way to interpret the malfunction of the system-based orders of objects is by taking it as an iconic sign of the malfunction as such. Reality in realism is not taken for granted, it is a manifestation of unacceptable interpretations that demand a correction. The indices then take the role of the 'attention vectors' guiding the thought through the crisis-ridden iconic dispersion of the archive of the symbols. The indices provide a way out. The 'metonymisation of metaphor' and the 'realist media' are typical realist phenomena: for instance, money ceases to be part of the symbolic order and begins to signify a unique and concrete situation in its worldly continuum. What is realistic is the flow of reality through time, not its reflection (the icon of crisis). The realist symbol does not exist, only the symbol *in potentia* as a pluridirectional index is possible. The order within the network of indices is iconic, and additionally shifted to a meta-poetic level: Geppert calls this semiotic move a 'metapoetic allegory',[20] of which the most prominent example is the image of the (realist) 'way'.

For Geppert, realism is the art of the interpretant, which is why the relationship of the realist sign to what Peirce calls 'the {Final/Immediate} Interpretant'[21] is never guaranteed or given. Realism consists of propositions that can be affirmed or denied. Realist media are claims about what really exists and possesses an immediate relevance. Dicent signs[22] are parts of a continuous chain of inferences. The realist argument, that is, a sign from the point of view of correct or incorrect reasoning,[23] is the 'incomplete induction', the progressive testing of hypotheses as presented in Peirce's theory of inquiry. 'Late realism' regularly sways into *aporias*, the no-way-out situations (*Ausweglosigkeit*), however without breaking out into other modes of signification.

'The pragmatic narrative' and 'late realism'

A demonstration of Geppert's Peircean interpretation of realist novels lies beyond the scope of this article. The 'pragmatic narrative' ('pragmatisches Erzählen') touches upon all aspects of a realist work: Geppert even demonstrates regular semiotic movement in the titles of realist novels, for instance, the dynamic continuous movement of the meaning encoded in the ordered pair of the red and the black in the title of the Stendhal's

novel. Some sort of reverse perspective is to focus on 'late realism', which, for Geppert, is situated on the margins of realist discourse. It is possible to show that Dickens's novel *Hard Times* (1854) is an archive of voices (in the Bakhtinian sense) of characters and the different narrators (see Vaupotič). Geppert himself identifies a communicative discontinuity in the text/reader relation in Dickens's *Our Mutual Friend* (1864-65), where for almost one half of the novel the reader lacks the clues to understand the reality behind the characters' pretences (Geppert, *Der realistische Weg* 463). In this case, strangely, the reader, too, is separated from the voices in the novel. Each of the voices in a late realist narrative is autonomous, placed next to all others, equal in value, and irreducible to any unified system-based order, such as is attempted in the scheme of Zola's natural-ism. The novel becomes a space of dispersion that resists unification and movement itself.

This apparently counters Geppert's thesis that the spatial dispersion, which is a sign of crisis, regularly turns into a pragmaticist continuous progression, akin to scientific inquiry. The novel is a continuous path from one crisis to another, all born from a retro-semiotic constellation of dysfunctional codes. The meaning is produced through allegory, which Walter Benjamin once enigmatically explained as:

> Just as a mother is seen to begin to live in the fullness of her power only when the circle of her children, inspired by the feeling of her proximity, closes around her, so do ideas come to life only when extremes are assembled around them. Ideas – or, to use Goethe's term, ideals – are the Faustian 'Mothers' (Benjamin 35)

It appears that a late realist novel such as *Hard Times* is at the same time a spatialised archive and a linear narrative – linear progression is somehow forced upon the archive of voices, but is nevertheless brimming with dy-namic forces (denounced by Adorno as 'magic')[24] that demand concrete albeit pragmatic answers.

NOTES

[1] Rather than limiting cybertexts to computer-based manipulation of text, Aarseth in-cludes any mechanical textual apparatuses, even, say, Raymond Queneau's *Cent mille mil-liards de poèmes* (1961).

[2] The notion of arbitrariness should not be construed here in a strict Saussurean sense, since cybertext is not necessarily a social phenomenon.

[3] 'Obwohl der Computer alle möglichen Medientypen, also auch Schrift, darzustellen vermag, operiert er nicht auf der Ebene der repräsentierten Information, sondern auf der ihr vorgehenden von Sein und Nichts, der reinen und deshalb bedeutungslosen Differ-enz. […] Anstatt Mengen zu bestimmen, bezeichnen Zahlen in [Turing's] Konstruktion

Zustände und halten Gleiches künstlich auseinander. Null und Eins setzen sich in einer Identität von Identität und Differenz ebenso entgegen wie sie in eins fallen, im Gegensatz zur herkömmlichen Mathematik, in der Null von Eins geschieden werden muß. Wer die Maschine im numerischen Feld verortet, verfehlt eine Pointe der Turing'schen Erfindung.' (Link, 44, 45)

[4] Consider, say, the method of principal component analysis as used in biology (see Cavalli-Sforza, Menozzi and Piazza 39ff).

[5] The quantitative leap, the previously unimaginable speed of information processing by means of computation, is itself one of the 'faces' of the signal–semiotic duality. Humans are now able to see regularities that were previously out of reach and could not take part in the understanding of the world. From this point of view the quantitative gain tentatively turns into a qualitative one, as, say, the new 'techno-gaze' redefines the human (see Bovcon).

[6] An aspect of this ambiguity is the difference between the ontological and the epistemological emergentism, or the 'strong' and the 'weak' emergentism (O'Connor & Wong).

[7] On the problem of emergentism in semiotics, see also Brier (1916ff).

[8] The ecocritical approaches attempt to extend the field of consciousness to non-humans such as domestic animals, which, however, merely shifts the point of the split between the semiotic and the non-semiotic.

[9] 'A sign, or *representamen*, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the *interpretant* of the first sign. The sign stands for something, its *object*. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the *ground* of the representamen. "Idea" is here to be understood in a sort of Platonic sense, very familiar in everyday talk; I mean in that sense in which we say that one man catches another man's idea, in which we say that when a man recalls what he was thinking of at some previous time, he recalls the same idea, and in which when a man continues to think anything, say for a tenth of a second, in so far as the thought continues to agree with itself during that time, that is to have a *like* content, it is the same idea, and is not at each instant of the interval a new idea.' (*A Fragment*, CP 2.228, c. 1897, in *The Commens Dictionary*).

[10] Geppert's concept of literary realism excludes naturalism.

[11] The 'logic in possession' as opposed to *logica docens*, which is learned by study (see the term 'Logica utens' in *The Commens Dictionary*). The Peircean formulation is comparable to the Foucaludian discursive formation.

[12] This is a problematic concept, which has been in its strict 'infinite' version later removed from the centre of Peirce's system (see Atkin).

[13] 'Sofern jedes Interpretans auf "some other possible sign of experience" […] verweist, hat Peirce entscheidende Momente einer "dekonstruktiven" Überwindung des Strukturalismus vorweggenommen; […] Derridas Begriff der "difference" (sic!) kommt einer bestimmten Form der unendlicher Semiose in der Tat sehr nahe. Aber für Peirce wäre es ein sinnloser Gedanke, Wahrheit prinzipiell in die "absence" zu verweisen; auch wenn sie nie direkt "präsent" ist, schon gar nicht in irgendeinem System (eine weitere Gemeinsamkeit), kann sie doch nicht anders als sprachlich-zeichenhaft gefaßt werden.' (Geppert, *Der realistische Weg* 79)

[14] As called by the author of the word *pragmatism*, William James (see Hookway).

[15] According to Geppert, Roland Barthes's 'éffet du reel' reduces the whole of the realist discourse to a single constituent part. 'Dieser Effekt entsteht aber nur dann, wenn man eben einen einzigen singular denominativen […] Objektbezug der Erzählzeichen […] isoliert. Andere Funktionen, z.B die historischen Konkretisationen, aber auch Funktionen

der Reflexion, Kritik, Progression, das "Verbrauchen" der Codes usw. heben ihn auf.' (Geppert, *Der realistische Weg* 129)

[16] Geppert calls it the 'actual interpretant' in order to stress the distinction in relation to the dynamic object in the text.

[17] Here, the contrast between Peirce's and Foucault's positions comes to the fore: Foucauldian spatial dispersion of the archive becomes an unacceptable image of crisis in Peirce's view, which demands an active step on the chosen 'path'.

[18] The triad consists of qualesign, sinsign (token) an legisign (type). An explanation of all of the categories would exceed the scope of this article.

[19] An archive without the strictly systematic order is compatible with Foucault's conceptions of the archive in *L'Archéologie du savoir*.

[20] In his *Abschiedsvorlesung, "Prodigium" und Chaos der "Zeichen in der Welt". Wilhelm Raabe und die Postmoderne*, Geppert points to a possibility of postmodernist-like features of allegoric imagination (which he construes in the sense of early Benjamin) at the poetic level itself, particularly in Raabe's works.

[21] It is used as if it were the immediate interpretant, even though it is located in the distant future as a sort of a Hegelian *Aufhebung* of the totality of semiosis.

[22] The triad of the relations of the sign to the final interpretant consists of rhema, dicent and argument.

[23] Geppert considers the following triad of signs from the point of view of correct or incorrect reasoning: abduction, induction, deduction.

[24] '[T]he theological motif of calling things by their names tends to turn into wide-eyed presentation of mere facts. If one wished to put it very drastically, one could say that […] [Benjamin's] study is located at the crossroads of magic and positivism.' (Adorno 129).

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