

Svetlana Pantelić

Udruženje banaka Srbije  
svetlana.pantelic@ubs-asb.com

*Oliver Hart*

*Nobelova nagrada za 2016.*



**DOPRINOS  
TEORIJI  
UGOVARANJA**

## Rezime

Oliver Hart i Bengt Holmstrom dele Nobelovu nagradu za ekonomiju koju im je dodelila Sveriges Riksbank za 2016. godinu. Nagrađeni su za rad na unapređenju sastavljanja ugovora, dogovora koji povezuje poslodavce sa radnicima ili kompanije sa klijentima, odnosno za svoj doprinos teoriji o ugovaranju tokom sedamdesetih i osamdesetih godina prošlog veka. Njihova analiza optimalnih ugovorenih aranžmana postavila je intelektualnu bazu za kreiranje poslovne politike i uspostavljanje institucija u mnogim oblastima, počev od zakona o bankrotstvu do političkih struktura. Hart je stručnjak za teoriju ugovaranja, teoriju o kompanijama, korporativnim finansijama, za oblast prava i ekonomije. Njegov doprinos teoriji ugovaranja tretira se kao izuzetan za sačinjavanje ugovora koji pokrivaju eventualnosti koje se ne mogu precizno predvideti.

**Ključne reči:** Oliver Hart, Bengt Holmstrom, Nobelova nagrada, ekonomija, Sveriges Riksbank, ugovor, klijent, teorija, bankrotstvo, političke strukture, kompanija, finansije, pravo

**JEL:** G30, K12

UDC 06.068NOBEL::331"2016"  
331.1Oliver Hart*scientific review article*

doi: 10.5937/bankarstvo1604168P

Svetlana Pantelić

Association of Serbian Banks  
svetlana.pantelic@ubs-asb.com

Oliver Hart

*Nobel Prize for 2016*

# CONTRIBUTION TO CONTRACT THEORY

## Summary

Oliver Hart and Bengt Holmstrom share the Nobel Prize in Economic Sciences for 2016, awarded to them by Sveriges Riksbank. They have been rewarded for their work in enhancing the design of contracts, i.e. arrangements connecting employers with employees or companies with clients, in other words, for their contribution to contract theory in the 1970s and 1980s. Their analysis of optimal contractual arrangements lays an intellectual foundation for designing policies and institutions in many areas, from bankruptcy legislation to political constitutions. Hart is an expert in contract theory, theory of the firm, corporate finance, and law and economics. His contribution to contract theory is exquisite when it comes to designing contracts which cover eventualities that cannot be precisely specified in advance.

**Keywords:** Oliver Hart, Bengt Holmstrom, Nobel Prize, economics, Sveriges Riksbank, contract, client, theory, bankruptcy, political structures, company, finance, law

JEL: G30, K12

U savremenoj ekonomiji ugovori imaju važnu ulogu u poslovanju. Oni određuju kome je i šta dozvoljeno da radi sa onim što se poseduje, kakav će biti odnos prema ljudima koji su zaposleni i mnogo drugih međusobnih prava i obaveza. Ugovori su u osnovi celokupnog bankarskog i sektora osiguranja. Ljudi često rade zajedno i moraju da nađu načine da usklade svoje interese ili



da smanje sukobe interesa. Nesavršenosti u mnogim ključnim oblastima ugovora bile su motiv rada na teoriji ugovora Olivera Harta i Bengta Holmstroma koji dele Nobelovu nagradu za ekonomiju od 925 hiljada dolara koju im je dodelila Sveriges Riksbank za 2016. godinu. Nagrađeni su za rad na unapređenju sastavljanja ugovora, dogovora koji povezuje poslodavce sa radnicima ili kompanije sa klijentima, odnosno za svoj doprinos teoriji o ugovaranju tokom sedamdesetih i osamdesetih godina prošlog veka. Obrazlažući izbor ova dva naučnika Švedska akademija je istakla: "Njihova analiza optimalnih ugovorenih aranžmana postavila je intelektualnu bazu za kreiranje poslovne politike i uspostavljanje institucija u mnogim oblastima, počev od zakona o bankrotstvu do političkih struktura".

Dva akademika,

Britanac i Finac, razvili su moderne načine razmišljanja o sačinjavanju ugovora u raznim oblastima, kao što su ugovori o osiguranju automobila, za bonuse koji se dodeljuju glavnim rukovodiocima, za obavljanje javnog servisa itd. Njihov rad ne utvrđuje šta je dobar ugovor, jer to zavisi od okolnosti, već pomaže ugovornim stranama da jasno sagledaju važna pitanja koja se odnose na sačinjavanje ugovora.

Mnogi elementi dizajniranja ugovora već su bili široko rasprostranjeni pre nego što su formalno uneti u teoriju ugovaranja. Neke je ugovore jednostavno sačiniti ali ima i onih gde je teško pratiti stavove ugovornih strana ili kada je teško definisati sve buduće ishode. Teorija daje praktičan savet kako da se postigne najbolji rezultat za obe strane i kako da se izbegnu uobičajne zamke koje se javljaju prilikom sačinjavanja ugovora.

Uloga moći u planiranju zajedničkih poslovnih firmi važna je tema u radu Harta i Holmstroma. Ekonomsku moć imaju pojedinci ili firme koji su u mogućnosti da stopiraju aranžmane povlačenjem svojih usluga ili korišćenjem resursa koje poseduju. Ova moć im dozvoljava da prisvoje veći deo vrednosti koja je ostvarena zajedničkim trudom a i da u potpunosti zatvore firmu, čak iako bi odnosna firma mogla da ostvari veliku dobit za sve učesnike i za društvo kao celinu.

Hart je stručnjak za teoriju ugovaranja, teoriju o kompanijama, korporativnim finansijama, za oblast prava i ekonomije. Njegovo istraživanje

je fokusirano na uloge koje vlasnička struktura i ugovorni aranžmani imaju na upravljanje i na ograničenja korporacija. Svoje angažovanje na definisanju teorije o ugovaranju započeo je primedbom da su ugovori nepotpuni priručnici sa





Contracts play a critical role in the operation of the modern economy. They set out who is allowed to do what with the land they own; they define the relationship between employers and employees and many other mutual rights and obligations. They underpin nearly all of the banking and insurance sectors. People often work together and must, therefore, find the ways to harmonize their interests or mitigate their conflicts of interest. The imperfections in many crucial areas related to contracts were the motivation for Oliver Hart and Bengt Holmstrom to work on contract theory. These two economists now share the 2016 Nobel Prize in Economics, in the amount of 925 thousand dollars, awarded to them by Sveriges Riksbank. They have been rewarded for their work in enhancing the design of contracts, i.e. arrangements connecting employers with employees or companies with clients, in other words, for their contribution to contract theory in the 1970s and 1980s. Elaborating on the selection of these two scientists, the Swedish Academy highlighted: "Their analysis of optimal contractual arrangements lays an intellectual foundation for designing policies and institutions in many areas, from bankruptcy legislation to political constitutions."

The two scholars, one British and the other one Finnish, developed the modern ways of thinking about contracts in various fields, such as contracts on car insurance, contracts on bonuses awarded to top managers, contracts on performing public services, etc. Their work does not prescribe what a good contract is, since that depends on the circumstances, but instead helps the parties think clearly about the important design issues.

Many contract design elements were already widespread before being formalized in contract theory. Some contracts are straightforward to write, whereas others contain articles difficult to follow, or refer to the future

eventualities impossible to specify. Thus, the contract theory provides practical advice on how to achieve the best outcome for both sides and how to avoid the common pitfalls occurring in contract design.

The role of power in planning a joint business firm is a significant topic in the work of Hart and Holmstrom. The economic power is in the hands of individuals or firms able to stop the arrangements by withdrawing their services or using the resources of their own. This power enables them to acquire the bigger part of the value achieved through joint effort or to completely close down a firm, even if the concerned firm could yield major profit for all participants and the society overall.

Hart is an expert in contract theory, theory of the firm, corporate finance, and law and economics. His research centers on the roles that ownership structure and contractual arrangements play in the governance and boundaries of corporations. His engagement on defining the contract theory began from an observation that contracts are incomplete instruction manuals. They cannot define what needs to be done in every single case. Instead, contracts must stipulate who is in charge of making decisions. "His research provides us with new theoretical tools for studying questions such as which kinds of companies should merge, the proper mix of debt and equity financing, and when institutions such as schools or prisons ought to be privately or publicly owned", says the brief summary by the Swedish Academy about Oliver Hart's work. Hart's contribution to contract theory in the mid-1980s is exquisite when it comes to



Oliver Hart prima nagradu od kralja Gustava XVI u Stokholmskoj koncertnoj dvorani 10. decembra 2016. godine  
Oliver Hart receiving his Prize from H.M. King Carl XVI Gustaf of Sweden at the Stockholm Concert Hall, 10 December 2016



uputstvima. Oni ne mogu da definišu šta treba da se uradi u svakom konkretnom slučaju. Umesto toga, ugovorima treba utvrditi ko donosi odluke. "Njegov rad nam daje teoretske alatke za proučavanje pitanja kao što su koje vrste kompanija treba da se spajaju, pravi odnosi duga i kapitala, koje institucije, kao što su škole ili zatvori treba da budu u privatnom ili javnom vlasništvu" kratak je rezime Švedske akademije o radu Olivera Harta. Doprinos Olivera Harta teoriji ugovaranja od sredine osamdesetih godina tretira se kao izuzetan za sačinjavanje ugovora koji pokrivaju eventualnosti koje se ne mogu precizno predvideti. Njegov stav je bio da kada je uzaludno pokušavati da se utvrdi šta će se desiti potrebno je navesti ko ima pravo odlučivanja kada se obe strane ne mogu dogovoriti.

Prava odlučivanja su često vezana za prava vlasništva. Hart ukazuje na činjenicu da je vlasnik značajan, ne samo u odlučivanju šta će se događati u različitim neočekivanim situacijama, već je značajan i za stvaranje svakodnevnih podsticaja. Tako na primer, naučnik koji radi u sektoru za istraživanje i razvoj provešće svoj radni dan na drugačiji način ukoliko ima obećanje da će dobiti vlasnički udeo u pogledu vrednosti svog intelektualnog vlasništva, nego ukoliko odnosna firma ima potpuno pravo vlasništva nad inovacijama.

Za razumevanje svog istraživanja u oblasti ograničenja ugovornih odnosa Hart je dao i više konkretnih primera. Jedan od njih je slučaj

## Ugovori su moćan način razmišljanja

"Ugovor je neverovatno moćan način razmišljanja kada se radi o oblastima ekonomije. Bilo koja da je u pitanju transakcija u ekonomiji, između kupca i prodavca, između poslodavca i zaposlenog, ili poverioca i dužnika, od suštinskog značaja je način na koji je ugovor strukturiran. Treba razmišljati o tome kako da se ugovor sačini da bi se povećala efikasnost, i da obe strane budu podstaknute da ostvare transakciju na najbolji mogući način, kako bi ona ostvarila najveću vrednost. Čak i kada se radi o jednostavnim stvarima, kao što ljudi misle da jedna strana diktira uslove drugo, čak i tada strana koja diktira uslove treba da odabere one koji su prihvatljiviji za drugu stranu kako bi se ostvarila najveća moguća vrednost, zato što kada imate dovoljno novca možete da sačinite bolji ugovor, tako da je to na jedan način veoma dobra strana ekonomske transakcije, a to vidite po tekstu samog ugovora." (Oliver Hart u Intervjuu novinaru Adamu Smitu, Nobelprize.org)

## Pradedovski geni

Pradeda Olivera Harta bio je Semjuel Montagu (21.12.1832 - 12.01.1911) obrazovani britanski bankar, političar, filantrop i pobožni ortodoksn Jevrejin koji se u većem delu svojih brojnih aktivnosti i angažovanja borio za bolji socijalni status Jevreja i njihovih institucija. Osnivač je banke *Samuel Montagu and Co* i član Parlamenta kao predstavnik liberalne stranke od 1885. do 1900. godine. Bio je i član Zlatne i Srebrne komisije od 1887. do 1900. godine, a 1907. godine postao je prvi Baron od Svejtinga.

## Contracts Are a Powerful Way of Thinking

“Contracts are just an incredibly powerful way of thinking about parts of economics. I mean they’re just fundamental, the whole idea that trade is a quid pro quo, there are two sides to a transaction and that any transaction that you have in economics, whether it’s between a buyer and a seller or an employer and an employee or a creditor and a debtor, that the way the thing is structured, you know, is very useful to think of as being done to increase efficiency so both sides have an incentive to construct the transaction in the most, so that it generates the greatest value. You know, even a simple thing like people often think that one side dictates the terms to the other side. It may look like that but actually even then the side dictating the terms wants to choose terms which are acceptable to the other side and generate the most value because if there’s money left on the table then you can write a better contract, so in a way it’s a very good side to economic transactions, and you see it through the design of the contract.” (Oliver Hart in an Interview to Adam Smith, Nobelprize.org)

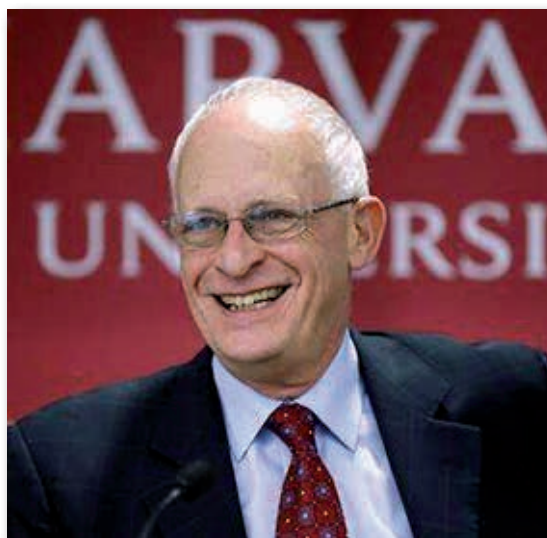
## Grand-Grandfather’s Genes

Oliver Hart’s grand-grandfather was Samuel Montagu (21.12.1832 - 12.01.1911), a well-educated British banker, politician, philanthropist, and a pious Orthodox Jew, the majority of whose numerous activities and engagements were aimed to advance the social status of Jews and their institutions. He founded the bank of Samuel Montagu and Co, and sat in the House of Commons representing the liberal party from 1885 to 1900. He was a member of the Gold and Silver Commission from 1887 to 1900; and in 1907 became the 1<sup>st</sup> Baron Swaythling.

designing contracts which cover eventualities that cannot be precisely specified in advance. His insight was that where it was futile to try to specify what could happen, it was important to write down who had the right to decide when both parties to a contract could not agree.

Decision-making rights are frequently tied to ownership rights. Hart highlighted the fact that who owns what is important to define, not only for the purpose of deciding what would happen in various unexpected scenarios, but also for the purpose of shaping day-to-day incentives. Thus, for instance, a scientist working in an R&D department will spend his/her time in different ways if promised an ownership share in whatever valuable intellectual property he/she generates than if his/her firm has full ownership rights to the innovations.

In order for his research of limiting contractual relations to be better understood, Hart illustrated it with several concrete examples. Consider the case of an electric company that needs to rewrite its contract with a coal mine because its needs have changed. Under some circumstances, Hart has shown, the utility would have been better off owning the mine from the beginning, to successfully control the business relationship. In other cases, contracts make more sense than ownership. The federal government turned to Hart in a pair of recent tax cases. Two companies — Black & Decker and Wells Fargo — claimed tax benefits related to spinning off some lines of business. The government leaned on Hart’s theory, arguing that companies retained control of decision-making, and therefore they could not





elektro kompanije koja treba da redefiniše svoj ugovor sa rudnikom uglja pošto su joj se potrebe promenile. Hart je pokazao da bi u određenim okolnostima za preduzeće bilo bolje da je od početka bilo vlasnik rudnika kako bi sa uspehom kontrolisalo poslovni odnos. U drugim slučajevima ugovori su bolje rešenje nego vlasništvo. Savezna vlada SAD obratila se Hartu u nekoliko slučajeva vezanih za sporove oko poreza. Dve kompanije, *Black and Decker* i *Wells Fargo*, zahtevale su poreske olakšice zbog neočekivanog preokreta u nekim poslovima. Primenivši Hartovu teoriju, Vlada je tvrdila da su kompanije zadržale kontrolu odlučivanja i zato ne mogu da podnose zahtev za uštedu troškova.

Oliver Sajmon D'Arshi Hart je rođen u Velikoj Britaniji 1948. godine. Potiče iz poznate jevrejske porodice, od oca Filipa, istraživača iz oblasti medicinskih nauka i majke Rut Majer, ginekologa. Hartov pradeda Semjuel Montagu bio je poznati britanski bankar, političar, filantrop i prvi Baron od Svejtlinga. Oliver je diplomirao matematiku na King's koledžu, Kembridž, 1969. godine a magistrirao ekonomiju na Vorvik univerzitetu 1972. godine. Doktorat iz ekonomije odbranio je na Prinston univerzitetu 1974. godine. Radio je na Čerčil koledžu, Kembridž a potom je bio profesor na *London School of Economics*. Odlazi ponovo u SAD da bi od 1984. godine predavao na Masačusets institutu za tehnologiju a od 1993. na Univerzitetu Harvard. Od 2000. do 2003. godine bio je predsednik Odseka za ekonomiju na Harvardu. Gostujući je profesor odseka za ekonomiju *London School of Economics*.



## Decentralizacija EU

Politika Plus/Hina u tekstu "Sad je malo kasno: Nobelovac Oliver Hart smatra da je euro bila pogreška" citira i parafrazira intervjuu koji je španskoj agenciji EFE, nakon dobijanja Nobelove nagrade, dao Oliver Hart. U intervjuu Hart iznosi svoje mišljenje o Evropskoj uniji. Smatra da je ključna reč u njenoj politici decentralizacija i da je Brisel otišao predaleko u svojoj centralizaciji vlasti. "Ukoliko EU odustane od tog trenda ima izgleda da opstane. Države članice nisu dovoljno homogene da bi se smatrale kao jedan entitet a koraci koji idu u tom smeru su pogrešni". Rešenje bi po njemu bilo u vraćanju prava odlučivanja državama članicama. EU je trebalo da zadrži kontrolu nad "nekim važnim područjima" kao što su slobodna trgovina i slobodno kretanje radnika.

Hart je ovom prilikom izneo i svoje uverenje da je evro bila pogreška i da je u to bio uveren od njegovog samog početka. Smatra da "uopšte ne bi bilo tužno da se Evropa u budućnosti odrekne jedinstvene valute" i da su Britanci bili "jako pametni" što je nisu uveli.

## Odabrani radovi

1. "O optimalnosti ekvilibrijuma u slučaju nepotpune tržišne structure", *Časopis za ekonomsku teoriju*, decembar 1975, 418-443.
2. "Troškovi i benefiti vlasništva: Teorija vertikalne i lateralne integracije" (sa Senfordom J. Grosmanom), *Časopis za političku ekonomiju*, avgust 1986, 691-719.
3. "Prava vlasništva i priroda preduzeća" (sa Džonom Hardmanom Murom), *Časopis za političku ekonomiju* 98(6), 1990.
4. *Preduzeća, ugovori i finansijska struktura*, Oxford University Press, 1995.
5. "Ugovori kao referentne tačke" (sa Džonom Hardmanom Murom), *Kvartalni časopis za ekonomiju*, februar 2008, 1-48.

## Decentralization of the EU

In an article titled "It's a Bit Too Late Now: Nobel Prize Winner Oliver Hart Believes the Euro Was a Mistake", Politika Plus/Hina cites and paraphrases the interview given to the Spanish agency EFE by Oliver Hart after he was awarded the Nobel Prize in Economics. In this interview Hart expressed his opinion about the European Union. He believes that the keyword in its policy should be decentralization and that Brussels has gone too far in its centralization of power. "If the EU abandons this trend, it could survive and flourish. The EU member states are not sufficiently homogeneous to be considered one single entity, and the steps taken in this direction are wrong." According to Hart, the solution would be to return the competencies to the member states, while the EU should retain control of "some important areas", like free trade and free movement of workers.

On this occasion, Hart argued that "the euro was a mistake" and said that it is an opinion that he has maintained ever since the monetary union was first introduced. The economist added that it "wouldn't be a sad thing at all" if in the future Europe abandoned the single currency and that the British were "very clever" to stay out of it.

## Selected Works

1. "On the Optimality of Equilibrium when the Market Structure is Incomplete", *Journal of Economic Theory*, December 1975, 418-443
2. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration" (with Sanford J. Grossman), *Journal of Political Economy*, August 1986, 691-719
3. "Property Rights and the Nature of the Firm" (with John Hardman Moore), *Journal of Political Economy* 98(6) (1990).
4. *Firms, Contracts, and Financial Structure*, Oxford University Press, 1995
5. "Contracts as Reference Points" (with John Hardman Moore), *Quarterly Journal of Economics*, February 2008, 1-48



simultaneously lay claim to the cost savings.

Oliver Simon D'Arcy Hart was born in Great Britain in 1948, and comes from a prominent Jewish family. His father Philip was a medical researcher, whereas his mother, Ruth Mayer, was a gynecologist. Hart's grand-grandfather, Samuel Montagu, was a reputable British banker, politician, philanthropist, and the 1<sup>st</sup> Baron Swaythling. Hart earned his BA in mathematics at King's College, Cambridge, in 1969, and his MA in economics at the University of Warwick in 1972. He gained his PhD in economics at Princeton University in 1974. He was a fellow at Churchill College, Cambridge, and then a professor at the London School of Economics. In 1984, he returned to the US, where he taught at the Massachusetts Institute of Technology and, since 1993, at Harvard University. He was Chairman of the Harvard economics department from 2000 to 2003. He is also a Visiting Professor in the Department of Economics at the London School of Economics.

Hart has earned several honorary academic titles: he is a fellow of the American Academy of Arts and Sciences, a corresponding fellow of the British Academy, and a member of the National Academy of Sciences. Moreover, he is a fellow of the Econometric Society, of the American Finance Association, and he has been President and Vice President of the American Law and Economics Association.

He received the news about the Nobel Prize on his very birthday. In the subsequent interview given to Adam Smith, Hart commented: "It's a



Hart ima nekoliko počasnih akademskih zvanja: član je Američke akademije nauka i umetnosti, dopisni je član Britanske akademije i član Nacionalne akademije nauka. Osim toga, član je Ekonometrijskog društva i Američke finansijske asocijacije a bio je i predsednik i potpredsednik Američke pravne i ekonomske asocijacije.

Vest da je dobio Nobelovu nagradu primio je na svoj rođendan. O tome je novinaru Adamu Smitu u intervjuu nakon objave imena dobitnika nagrade rekao: "To mi je bio predivan poklon. Prijatelji mi kažu da sam već nekoliko godina

imao velike šanse da dobijem ovu nagradu, a to je nekako uvek bilo oko moga rođendana, što je zapravo uticalo da je proslava proticala pomalo u iščekivanju nagrade. Ona je kao mogućnost uvek stajala negde u pozadini proslave rođendana, što se zapravo i obistinilo juče. Jedna od prednosti ove nagrade je i to da ću, ubuduće, moći da proslavljam svoj rođendan bez iščekivanja njenog dobijanja" (Nobelprize.org).

Iako rođen u Britaniji, Hart je državljanin SAD. Ima dva sina iz braka sa Ritom B. Goldberg, profesorom književnosti na Harvardu, autorom memoara *Domovina: Odrastanje sa holokaustom*.

## Literatura / References

1. Oliver Hart and Bengt Holmstrom Win Nobel in Economics for Work on Contracts, Binyamin Appelbaum, *The New York Times*, 10.10.2016
2. Oliver Hart and Bengt Holmstrom Win the Nobel Prize for Economic Sciences, *The Economist*, 10.10.2016
3. Oliver Hart and Bengt Holmstrom Win 2016 Nobel Economics Prize, Chris Giles, *Financial Times*, 10.10.2016
4. Oliver Hart - Interview, Adam Smith, [www.nobelprize.org](http://www.nobelprize.org), October 2016
5. Professor Oliver Hart Wins Economics Nobel Prize, University of Cambridge, [www.cam.ac.uk](http://www.cam.ac.uk)
6. "Oliver Hart - Facts". Nobelprize.org. Nobel Media AB 2014. Web. 11 Dec 2016. <[http://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/2016/hart-facts.html](http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2016/hart-facts.html)>



lovely present. Friends of mine said I have a decent shot at this for a few years and it's always around my birthday, which actually makes celebrating my birthday a little tricky. This is always in the background, and that was certainly true yesterday. So it's going to be, you know, one of the smaller benefits of winning the Prize, that in the future I will be able to celebrate my birthday without thinking about it" (Nobelprize.org).

Though born in Great Britain, Hart is a US citizen. He has two sons with Rita B. Goldberg, Professor of Literature at Harvard, and author of the memoir *Motherland: Growing Up With the Holocaust*.