

Contract Enforcement, Institutions and Social Capital:
the Maghribi Traders Reappraised

Jeremy Edwards and Sheilagh Ogilvie

June 2009

CWPE 0928

**Contract Enforcement, Institutions and Social Capital:
the Maghribi Traders Reappraised ***

Jeremy Edwards
University of Cambridge

Sheilagh Ogilvie
University of Cambridge

June 2009

Addresses of authors

Jeremy Edwards
Faculty of Economics
University of Cambridge
Sidgwick Avenue
Cambridge
CB3 9DD
United Kingdom

Sheilagh Ogilvie
Faculty of Economics
University of Cambridge
Sidgwick Avenue
Cambridge
CB3 9DD
United Kingdom

je12@cam.ac.uk

sco2@econ.cam.ac.uk

* We are extremely grateful to Hilla Zmora for his generous and invaluable translation of a number of Geniza letters from Hebrew to English, and to Moshe Gil for his kindness in reading a draft of this paper and advising on translation and interpretation of the Geniza letters. We are also greatly indebted to Jessica Goldberg for directing our attention to additional Geniza literature and English translations. We would also like to thank Chris Briggs, André Carus, Greg Clark, Tracy Dennison, Steven Durlauf, Bob Evans, Marcel Fafchamps, Tim Guinnane, Frank Hahn, David Harbord, Neeraj Hatekar, Timur Kuran, Janet Landa, Abhay Pethe, Michael Toch, and seminar audiences at the Universities of Mumbai, Pennsylvania and Yale for their helpful comments on earlier versions of this paper.

Abstract

Economists draw important lessons for modern development from the medieval Maghribi traders who, it has been argued, enforced contracts collectively through a closed, private-order coalition. We show that this view is untenable. Not a single empirical example adduced as evidence of the putative coalition shows that any coalition actually existed. Furthermore, the Maghribis entered business associations with non-Maghribis and used formal enforcement mechanisms. The Maghribi traders cannot be used to argue that the social capital of exclusive, private-order networks will facilitate exchange in developing economies. Nor do they provide any support for the cultural theories of economic development and institutional change for which they have been mobilised.

JEL Code: O17.

1. Introduction

Economists frequently refer to historical institutions when discussing social capital and the institutional determinants of economic development. They draw far-reaching lessons in particular from Greif's portrayal of the eleventh-century Maghribi traders (1989b, 1993, 2006). Greif claims that the Maghribis lacked effective legal contract enforcement, and instead developed an informal enforcement mechanism based on collective relationships within a closely-knit and exclusive group. Greif also claims that the Maghribis held 'collectivist' Judaeo-Muslim beliefs and norms which led them to develop different institutions from their 'individualistic' Christian counterparts. In Greif's account, and that of some other economists, these claims exemplify the feasibility of private alternatives to the public legal system as a basis for economic transactions, the key role of social capital and informal institutions in developing economies, and the centrality of cultural differences to institutional and economic development. But is Greif's portrayal of the Maghribi traders accurate?

According to Greif, the Maghribis were a distinct group of Jewish traders from the 'Muslim West' – centred in Tunisia – who by the eleventh century were trading throughout the Muslim Mediterranean, from Spain to Syria and Palestine.¹ A Maghribi trader in one location, say Fustat (Old Cairo) in Egypt, could greatly reduce his costs by arranging for a Maghribi trader in another location, say Palermo in Sicily, to act as his agent in selling his goods in Palermo. But distance and delays in communication meant that any agent had scope for opportunistic behaviour: the Palermo agent, for example, might tell the Fustat principal that his goods had sold at a lower price than the agent actually received, and pocket the difference. For such

¹ Greif (1989b), 861-2. Goitein (1967), 43, describes 'al-Maghreb' ('the Muslim West') as including Morocco, Algeria, Tunisia, Libya, Sicily, and Spain.

business associations to be feasible, distant traders needed some way of preventing such behaviour.

The formal legal institutions available to the Maghribi merchants were inadequate for this purpose, according to Greif.² Instead, he claims, the Maghribi traders developed an informal enforcement mechanism based on repeated interactions and collective punishments. Greif calls this mechanism a coalition, which he defines as

a non-anonymous organizational framework through which agency relations are established only among agents and merchants with a specific identity ('coalition members'). Relations among the coalition members are governed by an implicit contract which states that each coalition merchant will employ only member agents ... Moreover, all coalition merchants agree never to employ an agent who cheated while operating for a coalition member.³

Greif contends that the Maghribi traders satisfied the conditions of a well-defined group with good information flows that would be necessary for such an informal enforcement mechanism to be effective:

The common religious-ethnic origin of the traders provided the natural boundaries for the coalition and served as a signal where information regarding past conduct could be obtained, while the commercial and social ties within the coalition served as a network for the transmission of information.⁴

Greif's portrayal of Maghribi contract enforcement is routinely cited in the economics literature as showing that, when monitoring is imperfect and formal enforcement limited, economic transactions can be sustained by long-term personal relationships within a well-defined group.⁵ It is also frequently used to argue that complex economic transactions do not require public legal mechanisms: the

² Greif (1989b), 857, 865-6.

³ Greif (1989b), 867-8.

⁴ Greif (1989b), 882.

⁵ Costa and Kahn (2007), 1470; Helpman (2004), 117-8; Kranton and Minehart (2001), 500; La Ferrara (2003), 1731; MacLeod (2007), 614; Sobel (2006), 273.

Maghribis are portrayed as an exemplar of a private-order enforcement method that can substitute for the legal system.⁶

Greif's view of the Maghribis has also strongly influenced the literature on the role of social capital in economic development. In the absence of formal institutions to support market-based exchange, it is claimed, closely-knit and multi-stranded social networks generate a social capital of norms, information and sanctions that provide an alternative framework within which exchange can develop. The Maghribi traders' coalition is viewed as a prime example of social capital actually working in this way. Thus, for instance, the World Bank begins the 2002 World Development Report, entitled *Building Institutions for Markets*, with Greif's description of the Maghribi traders' coalition, which is claimed to hold important lessons for modern developing countries.⁷ In their chapter on social capital for the *Handbook of Economic Growth*, Durlauf and Fafchamps refer to the Maghribis as an example of 'the role of social networks in circulating information about breach of contract, thereby enabling business groups to penalize and exclude cheaters'.⁸ In discussing social capital and industrialization, Miguel et al. adduce the Maghribi traders as an example of how 'social networks can also provide access to distant markets and permit transactions that are separated in time and space'.⁹

The Maghribi traders also provide the central prop for a particular theory of how culture determines economic development. Greif hypothesizes that the Maghribis held collectivist cultural beliefs which led them to develop contract-enforcement mechanisms based on collective sanctions, while the merchants of medieval Italian cities such as Genoa held individualistic cultural beliefs which led them instead to

⁶ Clay (1997), 203, 207-08, 214 226; Faille (2007); Greif (1989b), 866; Greif (2006), 58-90; McMillan and Woodruff (2000), 2626, 2433-5; O'Driscoll and Hoskins (2006), 476.

⁷ World Bank (2002), 'Overview', 1, 3, 5-6.

⁸ Durlauf and Fafchamps (2005), 1653.

⁹ Miguel et al. (2005), 757.

develop formal legal mechanisms.¹⁰ The Genoese use of formal legal enforcement is supposed to have generated further institutional innovations that promoted economic growth, while the Maghribis' reliance on trust within their closed social network stifled the institutional adaptations needed for long-term development. This hypothesised cultural contrast between Maghribi and Genoese merchants is now often adduced as evidence that beliefs and norms are the linchpin of institutional formation and economic development.¹¹ North, for instance, endorses the view that cultural beliefs determine institutions and growth, echoing Greif on how the Maghribis

developed in-group social communication networks to enforce collective action, which, while effective in relatively small homogeneous ethnic groups, do not lend themselves to the impersonal exchange that arises from the growing size of markets and diverse ethnic traders. In contrast the Genoese developed bilateral enforcement mechanisms which entailed the creation of formal legal and political organizations for monitoring and enforcing agreements – an institutional/organizational path that permitted and led to more complex trade and exchange.¹²

Aoki buttresses his general theory of institutions as self-sustaining systems of 'shared beliefs' by referring to Greif's account of how collectivist beliefs caused the Maghribis to choose institutions which ultimately circumscribed the capacity of their economy to develop.¹³

Greif's portrayal of the Maghribis is thus widely cited. Given its central role in theories of social capital, modern development, and institutional change, it is important to be sure it is accurate. Yet to the best of our knowledge there has been no systematic, critical assessment of the empirical basis for it.¹⁴ This paper provides such an assessment.

¹⁰ Greif (1994); Greif (2006), 269-304.

¹¹ As argued by Greif (2006), 15-23, 39, 45.

¹² North (2005), 136.

¹³ Aoki (2001), e.g. 10, 73.

¹⁴ However, criticisms of a number of individual aspects of Greif's claims have been advanced in Ackerman-Lieberman (2007), 2-3, 104, 122-3, 125, 133, 136, 195-7; Goldberg (2005), 31, 37, 131,

2. Is There Direct Evidence of a Coalition?

In evaluating the direct evidence adduced by Greif to demonstrate the existence of a Maghribi traders' coalition, it is important to recognise two things in advance. First, no evidence exists for the claim that there was a distinct subgroup of Maghribi merchants who 'rarely establish[ed] agency relations with non-Maghribi Jewish traders'.¹⁵ The merchants discussed by Greif were those whose papers were deposited in the Geniza (storeroom) of the synagogue in Old Cairo (Fustat). Some (but not all) of these merchants had migrated to Fustat from the Maghreb, or their ancestors had done so, and some (but not all) of their trading ties were with merchants in the Maghreb. But Geniza scholars have not identified a separate subset of merchants of Maghribi descent who avoided agency relations with non-Maghribis. Goldberg points out that Greif does not cite any instance in which a merchant requests a commercial task of a 'Maghribi', and notes that she finds no such instances, therefore preferring the term 'Geniza merchants' to 'Maghribi traders'.¹⁶ Toch also objects to the term 'Maghribi traders' on the grounds that 'it is clearly formulated with reference to [Greif's] model and also suggests that these people were settled in the Maghreb or even that they only traded there', neither of which was the case.¹⁷ Although for simplicity we will continue to use Greif's term 'Maghribi traders', analytically it is important to recognize that the Geniza merchants did not consist of a

152-8, 162-3, 177-80, 185, 223 with fn 34, 243-4, 305 with fn 141; Harbord (2006), 2-5, 28-9; Toch (2008), 1-6; and Trivellato (2006), 3-4.

¹⁵ As asserted by Greif (2008), 25, reiterating claims advanced in Greif (1989a), 104-05.

¹⁶ Goldberg (2005), 177-80; Goldberg (2008), 11, footnote 84.

¹⁷ Toch (2008), 2-3.

cohesive group of Maghribis who avoided agency ties with non-Maghribi Jews (or even, as we shall see, with non-Jews).¹⁸

The second thing to recognize in advance is that evidence of the importance of *reputational* considerations does not, on its own, constitute evidence that the Maghribi traders operated a *coalition*. The importance of reputation in business relationships can arise from several types of repeated interaction between parties. It does not occur solely when there are repeated interactions between different members of a well-defined group which imposes collective punishments on opportunists. Evidence that reputation was important to the Maghribis is not, therefore, evidence that there was a Maghribi traders' coalition.

A number of the cases cited by Greif as providing evidence of the existence of a *coalition* in fact simply show the importance of *reputation*. For example, Greif supports his claim that there was a coalition by quoting the statement made by Yūsuf b. 'Awkal in Fustat (Egypt) to Samḥūn b. Da'ūd in Qayrawān (Tunisia), saying that 'if your handling of my business is correct, then I shall send you goods',¹⁹ and by describing how buyers in Sfax (Tunisia) eventually agreed to pay the originally-agreed higher price for flax because of concern about their 'honour'.²⁰ But these quotations merely show that reputational considerations were important in relationships between Maghribi traders and do not show anything about the possible existence of a coalition.

There are exactly five cases adduced by Greif which hold the possibility of furnishing direct evidence of something resembling the hypothesised coalition as

¹⁸ Gil (2004b), 151, to whom Greif refers for support in this context, merely states that 'the merchants who wrote the letters we have before us were a separate and well-defined group among the Jewish population'. Gil does not say that this group of merchants consisted solely of Maghribis, and neither he nor any other Geniza scholar finds evidence that merchants of Maghribi descent refrained from forming long-distance trading associations with other Jewish merchants.

¹⁹ Greif (1989b), 869.

²⁰ Greif (1989b), 870.

distinct from merely demonstrating the existence of repeated interactions between particular parties.²¹ Since these are the only such examples provided by Greif, we consider each of them in some detail.

The first case is that of Abūn b. Ṣadaqa. According to Greif, a letter written in 1055 by Abūn, who lived in Jerusalem, shows that he ‘was accused (although not charged in court) of embezzling the money of a Maghribi trader. When word of this accusation reached other Maghribi traders, merchants as far away as Sicily cancelled their agency relations with him.’²² Greif claims that this collective punishment was effective: ‘only after a compromise was achieved and he [Abūn] had compensated the offended merchant were commercial relations with him resumed.’²³

However, Greif’s interpretation of this case is questionable. The letter, written by Abūn b. Ṣadaqa in Jerusalem to Ḥayyim b. ‘Ammār al-Madīnī in Alexandria, reads as follows:²⁴

I am writing you my master, mentor and excellency, may the Lord grant you a long life and perpetuate your well-being and happiness, from my home in Jerusalem, may she be rebuilt, in the middle of Adar One, simultaneously with the arrival, by the life of Jerusalem, of your esteemed letter. I am amazed that it took one and a half months to get here. I learned from it something that shook and grieved me, i.e., the death of your son, may God in His mercy glorify his spirit and bless you with the survivors. May He prevent you suffering another loss and remember your grief. Bless Him. One cannot evade God’s decree, no one can by any means redeem his brother, nor give to God a ransom for him. In the end, he who dies these days fares better than the living, in view of (prevailing) troubles and hardships. Only the virtuous have merit in the Lord’s eyes, and he is the one and only God.

I have read your esteemed letter from beginning to end. As to your affirmation that you were ashamed of my letters, which are undoubtedly in my handwriting, and which you had your friends and mine read, may God preserve them: He who knows all secrets, the king of kings, to whom we present our complaints and whom we ask for help, He who is able to come to

²¹ These are discussed in Greif (1989b), 868-71. They are referred to again in Greif (1993), 530-1; and in Greif (2006), 66-71.

²² Greif (1989b), 868-9.

²³ Greif (1993), 530.

²⁴ Letter dated 17 March 1055. The original document is in the Taylor-Schechter Collection, Cambridge University, with shelfmark TS 13J 25.12. English translation, from the Hebrew version in Gil (1983b), published in Simonsohn (1997), No. 105, 209-12.

the rescue and reveal the truth, and to hide to evildoers that which has been hidden in the past. No one has been as repudiated as much as I have been, and has been put in jeopardy as much as I have.²⁵ It came to pass that if someone had said [*missing words*] five by five,²⁶ he would have been told: Abūn consumed the money of the North African.²⁷ And if I had greeted somebody, he would have replied: you owe money to the authorities. Everyone would say it in his fashion. One would say: a hundred, and the other: five hundred. These days, since the death of our head (The *Gaon*, R. Joseph b. Solomon Hacoheh)²⁸ it became a thousand. Everyone says in Hebrew: a thousand gold coins. Praised be He who deliverest the poor from him that is too strong for him. Things came to such a pass that if they had appointed an administrator of estates he would have been applied to over this every week.²⁹ This is notorious and incontrovertible evidence, may the Lord preserve you, even more than the letters undoubtedly in my handwriting. After all, a thousand gold coins are more than 15 or 16 dinars. He who contrived this may God show me his leprosy and poisoning and keep me alive until they are visited upon him. I believe that this will come to pass, God willing. Because our sages said: He who suspects the innocent suffers bodily punishment. R. Josi said: I had rather be one of those suspected without reason. Woe and sorrow unto the wicked.³⁰ I was amazed at R. Nahray, may the Lord protect him, whom I have written and people tell me that he received my letters, for not answering me. One may excuse him (on the grounds) that he does not want to risk the condemnation of an answer. All I want is that he receives my letters and reads them, even if he does not want to take the risk of answering them. I was even more amazed at your letter, because of the falsehood that you treat me to. You portray me as your enemy and bring up my handwriting against me, and again you present me as if I were a mediator. Woe and sorrow, time and again, who lives in an age which God corrupted completely, because there is no one left who will mediate a conflict, reform customs and put things in order. We exemplify (the biblical verse): None considering that the righteous is taken away from the evil to come. And I, may the Lord grant you a long life, the most insignificant of all, fulfil my duties like all Jews. As to your being ashamed of the writing which no one denies is my own, since it is known to all in Jerusalem, may God ban the person who wrote you solely on the strength of what he heard in the head's court, in the manner in which one reports news. I cannot now answer you in detail, because you have made me adversary with all your clever behaviour and conduct. The antagonist does not act as adviser, guardian or witness. All he need do is defend himself against accusations. Therefore, may the Lord refuse to forgive one who does not make this his chief purpose.

²⁵ Goitein (1988), 303, has: 'No one has ever trod on another man's blood as that one who caused all this did on mine'.

²⁶ That is, 'if someone was discussing something that had nothing to do with this matter'.

²⁷ That is, 'Maghribi elder' or 'Maghribi gentleman' ('al-sheikh al-maghribi').

²⁸ The *Gaon* was the highest authority on Jewish law in a particular area.

²⁹ Goitein (1988), 303, has: 'What would have happened, if these rumours had reached the ears of the director of finances or the head of the department of estates?'

³⁰ For the previous four sentences, Goitein (1988), 303, has: 'May God let me see on his body leprosy and other plagues, may He not let him leave this world until he will see himself as a leper. I am confident that this will happen, if God wills, for our sages, Peace upon them, have said: He who casts suspicions on rightful men will be afflicted on his body. R. Yose, Peace upon him, had said; "May I be of those who are suspected of something they have not done". Woe to the wicked forever.'

Perhaps I shall find rest for my soul and the Lord will punish the wicked on land and sea. I believe that I shall be shot at with arrows, into the eyes (?).

I pray that the Lord may preserve you, maintain your well-being, lead you and us to a happy end, separate me and you from the wicked, and guard you and our souls from everything illicit. Accept, sir, my best wishes and to those in your care my best regards, and to all our Maghrebine men, each on his way, kindest regards; and to my master Abū Sa‘īd Khalaf b. Salāma the most excellent and complete regards. I have written him, but I do not know whether he has had the letters. My brother-in-law, master and mentor (Joseph b. Da‘ūd b. Shaya) Abū‘l A‘lā, may God preserve him, is a friend of his and broadcasts his grace. He sends him his greetings and complains that he stopped writing to him. I, God willing, will write him later. Because I, by God, wrote the present letter in a bitter mood; may God refuse to forgive the wicked. As to me, I cite: Let us fall now into the hands of the Lord, for his mercies are great, and let me not fall into the hands of men. Praise to Him who performs to me His miracles and wonders in His mercy, truly. Indeed, far less is needed to bring one to perdition. This is what they meant to do to me. Therefore, woe and sorrow to those who do not believe in Him and who do not purify their hearts and thoughts and worship Him. It was your duty – because you know me and in view of the friendship and the partnership that used to exist between us, thanks to God – to believe in my innocence and not to spread the current slanders, which have never been proven. God willing, next week I shall force myself to write a long and detailed letter to my master and mentor Abū Sa‘īd Khalaf b. Salāma. First and foremost I shall complain to him about your behaviour and your lack of consideration for a man like me, who was prepared to sacrifice himself for you, as you know, may God preserve you. All told, at the behest of some person, and because of wickedness and an evil heart, while these deplorable times destroy good qualities, the more so [*missing words*] you began to think. God will comfort His people, and farewell.

This letter is quoted in full to demonstrate precisely what evidence it contains.

Counter to Greif’s claim, it does not show that Abūn was accused of embezzling the money of a Maghribi trader. Rather, Abūn was accused of consuming the money of an unidentified Maghribi individual, of owing money to the authorities, and of being importuned by administrators of estates. Owing money to the authorities was clearly not commercial embezzlement.³¹ Consuming the money of a Maghribi does not

³¹ In an effort to rehabilitate his original assertion that this conflict involved embezzlement among merchants, Greif (2008), 19, advances the claim that the phrase ‘the authorities’ or ‘the authority’ in the statement ‘you owe money to the authorities’ is to be understood as referring to God, and asserts that ‘the statement should not be taken literally but as a metaphor’. This is apparently based upon a speculative interpretation in a footnote by Gil (1983b), vol. 3, p. 220, n. 14. It differs fundamentally not only from the translation ‘the authorities’ by Simonsohn (1997), 210, but also from the interpretation of this part of the letter by Goitein (1988), 303, who regards it as indicating that rumours had spread that

indicate that this is necessarily a case of *commercial* embezzlement, let alone a relationship between long-distance merchants; it could as easily refer to non-mercantile conflict over personal debts or inheritance. The latter interpretation may be supported by Abūn's reference to being approached by administrators of estates (i.e. of inheritances). Goitein's interpretation is that Abūn had concealed a small sum of money left by a countryman to save it for the heirs, because the government confiscated the property of foreigners when no heirs were present in the town. Rumours then spread that Abūn had robbed the government (not the heirs) of a large sum. These rumours reached Ḥayyim, who was puzzled by them, and thus caused the 'excitable' Abūn to become furious.³² But the key point is that this letter contains no details of the accusations against Abūn, apart from that they involve money, the authorities, an unidentified Maghribi, and inheritances. It does not show that Abūn was accused of embezzling the money of a fellow Maghribi trader.

This letter does not show that Abūn was accused informally, without being charged in court. Quite the contrary. While it is clear that Abūn was the subject of informal rumours, it is equally clear that the worst aspects of the accusations against him were actually stated in a court of law, since he exclaims, 'may God ban the person who wrote you solely on the strength of what he heard in the head's court'. Gil interprets this text as showing Abūn complaining that 'his opponents pour abuse on him in the Muslim legal institutions'.³³ Even if the accusation against Abūn had related to commercial contract enforcement, therefore, it was being made not just

Abun had 'robbed the government'. The phrase used means, 'you have what belongs to the 'sultān'; in Geniza documents, 'sultān' can refer specifically to the sultan or his representative, or more generically to the secular authorities. Greif does not make clear for what, precisely, he believes 'you owe money to God' might be a metaphor.

³² Goitein (1988), 303. In Greif (2008), 19, the sole justification for describing this unidentified Maghribi individual as a merchant is the use of the term 'alsheikh' ('gentleman'). This term is an honorific used to refer to any important man, not only to a merchant.

³³ Gil (1992), 168; see also the editorial commentary on this letter in Gil (1983b), 218-24.

through informal rumours but via official administrators of inheritances, and it was stated in a formal court of law on at least one occasion. Any informal enforcement via the rumours reported in this letter was a supplement to legal institutions, not a substitute for them.

This letter also does not show that rumours about Abūn were disseminated to Maghribi traders throughout the Mediterranean, as required for the hypothesised coalition. Rumours were circulating in Abūn's own town (Jerusalem) and in that of his correspondent Ḥayyim (Alexandria). Abūn evidently believed the rumours to have spread to another habitual correspondent, Nahray, in Fustat (Old Cairo). This would suggest that information was being conveyed to immediate associates of Abūn around the eastern end of the Mediterranean – a maximum distance of about 315 miles.³⁴

This letter does not support Greif's claim that Maghribi traders as far away as Sicily (1312 miles from Jerusalem) cancelled their agency relations with Abūn. The only person mentioned as having cut off contact with Abūn is Nahray b. Nissīm in Fustat (Old Cairo). There is no evidence that Ḥayyim himself cut off relations with Abūn, in any case, since he was still corresponding with him.³⁵ The only reference to Sicily is in the toponym (geographical nickname) of the addressee, whose full name is 'Ḥayyim b. 'Ammār al-Madīnī, named for madīnat Siqilliyya'; according to Gil,

³⁴ From Jerusalem to Alexandria is 315 miles; from Jerusalem to Cairo is 265 miles; from Alexandria to Cairo is 112 miles. See <http://www.convertunits.com/distance/>.

³⁵ The claim advanced in Greif (2008), 20-1, that Abū Sa'īd Khalaf b. Salāma (in Alexandria) had also cut off relations with Abūn, stretches the evidence. All Abūn says is that he and his brother-in-law have written to Khalaf but have not yet heard back from him. Such expressions of concern are a constant motif in Maghribi letters – not surprisingly, given the difficulty of the mails, discussed in Section 3 below – and cannot be regarded as evidence of ostracism. Greif also claims that Abūn's request that Ḥayyim to send his regards to 'all our friends, the Maghribi travelers, each one by name' was unusual, and hence constitutes evidence 'that Abun was subject to multilateral response'. This is not borne out by the documentary evidence. Thus, according to Goldberg (2008), 50 fn 84, although there is no evidence of a closed Maghribi traders' coalition, and no instance can be found in which a merchant requests a task specifically of a 'Maghribi', nonetheless 'merchants of Maghribi origin dwelling outside Ifriqiyya sometimes ask to be remembered to their Maghribi colleagues in their letters, request news of them, or report well-wishes'; for examples of such requests, see Goldberg (2005), 177 with fn 161-4.

‘madīnat Siqilliyya’ means ‘the city of Sicily, i.e., Palermo’.³⁶ Ḥayyim was the merchants’ representative in Sicily, but at the time this letter was written he was in Alexandria (Egypt), and there is no evidence that details of this dispute reached Sicily.³⁷ This letter thus provides no evidence of collective punishment and no mention of information reaching distant destinations such as Sicily.

Finally, the letter does not support the claim that collective punishment resulted in compromise and the payment of compensation. Greif supports this assertion by footnoting three of the seven surviving letters of Abūn reproduced by Gil.³⁸ One of these is Abūn’s 1055 letter, reproduced in full above, which does not accept that the accusations made against him were justified and makes no mention of compromise or compensation. The two other letters, dated 1059 and 1064, do not even mention this conflict, let alone any act of compromise or compensation. Four further surviving letters by Abūn, dated 1064-5, also make no mention of this conflict. This raises the question of the basis on which Greif makes his assertion that collective punishment by the Maghribi coalition led to compromise and compensation.

The case of Abūn b. Ṣadaqa thus provides no support for Greif’s hypothesised coalition. It does not show that Abūn had embezzled from another Maghribi trader – the only details of the conflict relate to the authorities and to inheritance. It does not show that Abūn was accused informally without the involvement of formal legal institutions – rumours were conveyed about Abun precisely because of what one informant had heard in the court of the Nagid. The case does not show that

³⁶ Gil (1992), 269, fn 43.

³⁷ The claim advanced in Greif (2008), 19-20, that Ḥayyim received this letter in Palermo, runs counter to the work of other scholars. Gil (1983b), 218-24, records this letter as being sent to Ḥayyim in Alexandria. Simonsohn (1997), 209-12, describes this letter as being sent to Ḥayyim, a ‘merchant in Palermo, temporarily in Alexandria’ (209). Goldberg (2005), 77-8, points out that Abūn asks Ḥayyim to convey his greetings to various ‘connections in the merchant community in Alexandria, where his letter was directed’; on 223 she mentions it again as being sent to Ḥayyim in Alexandria on one of his several trips to Egypt, and being discarded in the Geniza before Ḥayyim travelled back to Palermo.

³⁸ See Greif (1993), 530, referring to Gil (1983b), vol. 3, 218-33.

accusations were disseminated to Maghribi merchants as far away as Sicily – the rumours were known in three locations within a 315-mile radius, there is no evidence the news reached Sicily, and only one merchant temporarily cut ties with Abūn. It does not show that coalition pressure forced Abūn to compromise or pay compensation – neither is ever mentioned and the conflict (along with any ostracism) had disappeared within four years.

The second case cited by Greif also fails to substantiate the existence of his hypothesised coalition. This is the complaint by Samḥūn b. Da'ūd in Qayrawān (Tunisia) that Yūsuf b. 'Awkal in Fustat (Egypt) had failed to comply with his request to pay two of Samḥūn's creditors in Fustat, or even to inform them of his request to pay them.³⁹ Yūsuf apparently failed to pay the creditors because he believed Samḥūn had personally profited from sending Yūsuf's goods to Spain, thus justifying his withholding sums owed to Samḥūn. Samḥūn says that his creditors' 'letters vituperating me have now come here to everyone and my honor has been disgraced'.⁴⁰ This case shows that a bilateral punishment mechanism operated – Yūsuf imposed sanctions on Samḥūn – supplemented by Samḥūn's concern about harm to his reputation in the eyes of his creditors in Fustat and his fellow traders in Qayrawān. However, it does not demonstrate the existence of a coalition as proposed by Greif. The coalition hypothesis requires information to be conveyed to, and collective sanctions imposed by, all members of the group. This case does not show that Samḥūn's failure to pay was known to Maghribi traders in any other Mediterranean trading centres: rather, information was disseminated only to individuals in the locations of the conflicting parties and sanctions were limited to unpleasant gossip in the immediate social circles of the two parties. As we discuss more fully in Section 5,

³⁹ Greif (1989b), 869.

⁴⁰ The original document is in the David Kauffman Collection, Budapest, shelfmark DK 327 a-d. The translation is from Goitein (1973), 31

behaviour of this type is extremely widespread in historical and modern economies, and is not special to the Maghribis. For example, Macaulay notes for twentieth-century American businessmen that ‘social networks serve as communication systems. People gossip, and this creates reputational sanctions.’⁴¹ Informal sanctions of this form do not provide evidence that the Maghribi traders operated a coalition.

It might be argued that it is too demanding to require evidence to support a pure form of the coalition hypothesis. But what is the alternative? To regard the coalition hypothesis as corroborated by *any* evidence of reputation-based contract enforcement using stronger sanctions than those based solely on purely bilateral relationships is surely not demanding enough. Viewed soberly, all that this case suggests is that the Maghribi traders were, in certain circumstances, able to use reputation-based contract-enforcement mechanisms that, by employing some sanctions based on a social network, fell somewhere between the two extremes of pure bilateral enforcement and collective enforcement. But merchants in most economies do precisely this – they mobilize gossip and reputation to put pressure on business associates.⁴² This practice cannot be portrayed as a distinctive institutional mechanism used solely by the eleventh-century Maghribis to take the place of formal contract enforcement.

The third case cited by Greif also fails to provide any evidence of a coalition. Greif treats a letter from Maymūn b. Khalfa in Palermo (Sicily) to Nahray b. Nissīm in Fustat (Egypt) as showing that Maghribi traders would participate in collective punishment even when they believed that the trader being punished was honest. In this letter, Maymūn made clear his belief that a certain trader in dispute with Nahray had in fact behaved correctly, and pointed out to Nahray that ‘as you know, he is our

⁴¹ Macaulay (1985), 468.

⁴² For examples from other medieval and early modern commercial economies, see Section 5 below.

representative and (this matter) worries all of us'.⁴³ Greif argues that this statement shows that Maymūn feared that an explicit accusation against the trader would harm his relations with that trader because he would then have to participate in a collective punishment imposed by all Maghribis.⁴⁴ But there is no evidence in Maymūn's letter to support this interpretation.

A more plausible reason for Maymūn's statement that the conflict was a matter of concern to 'all of us' derives from the role of the merchants' 'representative'. The 'representative' (*wakīl*) of a group of merchants in a particular location performed a number of useful functions for traders who could not attend to their business in person.⁴⁵ These included solving warehousing and payment transfer problems and selling other merchants' goods on a commission basis if no other agent was available.⁴⁶ A false accusation that the Maghribi traders' representative in Palermo had cheated Nahray would obviously be of concern to all Maghribi traders, including Maymūn, because it would raise unfounded questions about the probity of someone who performed a number of important economic services for them. The statement that an accusation against him 'worries all of us' does not provide evidence that an accusation against *any* Maghribi trader would result in all Maghribi traders punishing him even when they believed him to be honest.

The fourth case cited by Greif is a letter from Khallūf b. Mūsā in Palermo (Sicily) to Yeshū'ā b. Isma'īl in Alexandria (Egypt).⁴⁷ Khallūf's letter explained that he had sold Yeshū'ā's pepper at a lower price than his own pepper, 'but, brother, I would not like to take the profit for myself. Therefore I transferred the entire sale to

⁴³ The original document is in the David Kauffman Collection, Budapest, shelfmark DK 230 d+a. The translation is from Gil (1983a), 106. There is a full translation in Simonsohn (1997), Letter 109.

⁴⁴ Greif (1993), 532, Greif (2006), 72.

⁴⁵ Goitein (1967), 191-2.

⁴⁶ Gil (2003), 318, Goldberg (2008), 20.

⁴⁷ Greif (1989b), 871. The original document is in the Bodleian Library, Oxford University, shelfmark Bodl MS Heb a 3.13. The full letter is translated in Goitein (1973), Letter 23, 120-5.

our partnership.’⁴⁸ Khallūf’s letter finished by asking Yeshū‘ā to settle accounts so that their partnership could be ended. Greif argues that Khallūf’s reason for sharing the profit cannot have been the maintenance of his reputation with Yeshū‘ā, since Khallūf wished to end the partnership, and hence his motive must have been to maintain his reputation with other coalition members. But this is pure speculation: the letter contains no evidence that this is the reason for Khallūf’s decision. Quite the contrary. Immediately after writing that he has transferred the sale of pepper to the partnership, Khallūf writes, ‘may God reward me for what I do for other people. I do not expect gratitude from men.’⁴⁹ This statement suggests that Khallūf did *not* transfer the sale to the partnership in the expectation of receiving the benefit of maintaining his reputation with other Maghribi traders.

Khallūf’s decision to share the profit should be interpreted, rather, in the light of the rest of the letter, in which he levels numerous complaints against Yeshū‘ā. Khallūf evidently wished to end his business relationship with an unsatisfactory and difficult partner, but expected that doing so would not be straightforward. As Goitein points out, the termination of a Maghribi partnership was generally a long and complex matter, sometimes lasting years, imposing complicated conditions, and involving many legal steps in front of the Muslim authorities followed by a formal statement before a Jewish court that the parties no longer had any claim against one another.⁵⁰ A more plausible reading of Khallūf’s decision to share the profit is that he wanted to minimise the complications involved in ending the partnership. He may also have expected that Yeshū‘ā would not make the ending of the partnership simple, because Yeshū‘ā was known to be a difficult character⁵¹ – hence Khallūf’s remark

⁴⁸ Goitein (1973), 123.

⁴⁹ Goitein (1973), 123. See also the discussion in Goldberg (2005), 234.

⁵⁰ Goitein (1967), 179.

⁵¹ Goldberg (2008), 28

that he did not expect gratitude from men. This interpretation is supported not only by the evidence in the rest of the letter, but also by the fact that the partnership did *not* end after Khallūf wrote this letter requesting that it be wound up. Instead, it continued for several years, and was terminated only when Khallūf sued Yeshū‘ā in a court of law. Khallūf was right to expect that ending his business relationship with Yeshū‘ā would not be a simple matter.⁵² This case cannot, therefore, be regarded as substantiating the view that reputation with all members of the putative coalition was important for individual Maghribi traders.

The fifth example cited by Greif in support of his hypothesised coalition is that of Yahyā b. Mūsā al-Majjānī of al-Mahdiyya (in Tunisia). According to Greif, in 1041-2 ‘a trader from Fustat accused his Tunisian agent [Yahyā] of having failed to remit the revenues from a certain sale. As a result of the accusation, so the agent complained, “the people became agitated and hostile to [me] and whoever owed [me money] conspired to keep it from [me]”.’ Greif claims that this case corroborates his coalition hypothesis because it shows ‘the economic nature of the punishment imposed upon a cheater by the members of the coalition and reveals why coalition members participated in punishing a cheater’.⁵³

But this interpretation does not hold up to closer examination of the document to which Greif refers.⁵⁴ This is a letter written in 1040 by Yahyā (based in the

⁵² Goitein (1973), 120.

⁵³ Greif (1989b), 870.

⁵⁴ Greif’s account inaccurately conflates two Geniza documents, one dated 1040 containing the quoted passage and the other dated 1041-2 containing the accusation. The accusation thus did not evoke the quoted passage. The document Greif quotes and footnotes (p. 870 fn 56), has the archival reference Bodleian Library, Oxford University, shelfmark Bodl MS Heb a 2 f. 17, glossed and translated in Goitein (1973), Letter 18, 101-07, but is actually dated 1040 by Goitein (not 1041-2, as Greif has it). It is a letter from Yahyā to a former apprentice and current business associate in Fustat, Abu ‘l-Khayr, with whom he is not in conflict, describing various complaints from creditors arising mainly from dissolving his father’s estate but also from his own business difficulties; it is this letter that contains the quoted passage. The accusation that Yahyā had ‘failed to remit the revenues from a certain sale’ is actually contained in a different document, with the archival reference Bodleian Library, Oxford University, shelfmark Bodl MS Heb a 3 f. 26, glossed and translated in Goitein (1973), Letter 17, 95-

Tunisian trading centres of al-Mahdiyya and Qayrawān) to his former apprentice and current business associate Abu ‘l-Khayr (based in Fustat, Egypt).⁵⁵ Yaḥyā relates how his father had recently died and people were demanding payment from him (Yaḥyā) for matters about which he had no knowledge and involvement. Yaḥyā had reported this to the Nagid (head of the Tunisian Jewish community) who knew the facts and reassured him of his protection. But then an Egyptian creditor called Abu ‘l- Ṭayyib sent a power of attorney to a man in Qayrawān to bring legal action against Yaḥyā. Unfortunately the recipient’s brother took delivery of the power of attorney and ‘showed it to everyone’.⁵⁶ It was this which gave rise to the frenzy of hostility to Yaḥyā, translated somewhat differently by Goitein than by Greif: ‘the people became agitated and hostile to me, and whoever owed the old man [Yaḥyā’s deceased father] anything conspired to keep it from me’.⁵⁷ However, the receiver of the power of attorney then submitted the legal document to the dayyān (Jewish judge), who validated it and ‘stopped the affair’.⁵⁸ Yaḥyā asks his correspondent in Fustat to keep an eye on what is going on with these matters there, to reassure people under oath on his behalf, and to be assured for his own part that he (Yaḥyā) is willing to honour the court judgment in any legal suit against him.⁵⁹ Goitein interprets a somewhat ambiguous passage in the letter as constituting a statement by Yaḥyā that he hopes he will not be forced ‘to apply to a Muslim court or another Muslim authority’.⁶⁰

101. This document consists of a draft appeal to the rabbinical court of Fustat by a Fustat trader, Ya‘qūb b. Ibrahīm b. ‘Allān, complaining about non-payment of revenues from joint business ventures with Yaḥyā’s recently deceased father, which Yaḥyā had continued after his father’s death. This document is indeed dated 1041-2, and contains the accusation, but does not contain the quoted passage.

⁵⁵ Translated and glossed as Goitein (1973), Letter 18, 101-07.

⁵⁶ Goitein (1973), 104.

⁵⁷ Note that the translation provided by Goitein (1973), 104, differs from that given by Greif (1989b), 870, in regarding the debts as being owed not to Yaḥyā himself but to his father.

⁵⁸ Goitein (1973), 104.

⁵⁹ Goitein (1973), 104-05.

⁶⁰ Goitein (1973), 105 fn 13.

This letter thus provides no evidence for the existence of a merchant coalition or for informal punishment of an agent who has cheated his principal. The brief frenzy of hostility and non-payment experienced by Yaḥyā did not arise out of an agency relationship at all, but rather out of a debt claim concerning which we know only that it emanated from the affairs of Yaḥyā's deceased father. The event that triggered the frenzy of hostility was not information transmission within an informal coalition of Maghribi merchants but rather the arrival of a formal legal instrument, a power of attorney, to bring legal action against Yaḥyā. The frenzy of hostility died down when the power of attorney was taken to a judge. The case continued not through any informal coalition but by formal legal action in Jewish courts, with application to a Muslim law-court mentioned as a possibility. Yaḥyā's Egyptian creditor had elected to undertake formal legal action, as shown by his sending a power of attorney, and Yaḥyā himself explicitly expresses his willingness to submit to legal action, writing that 'if they want to sue me, I shall honor the decision of the court and do what is imposed upon me, for my only wish is to be cleared'.⁶¹

The agency conflict referred to by Greif did exist, although it did not give rise to the passage he quotes. Yaḥyā's deceased father had conducted a number of business ventures with a Fustat merchant called Ya'qūb b. Ibrahīm b. 'Allān, and Yaḥyā inherited responsibility for these ventures when his father died. We know about this from a document of 1041-2 (not footnoted by Greif), a draft speech by Ibn 'Allān for a legal appeal against Yaḥyā in 'the permanent court of Fustat'.⁶² In this draft speech, Ibn 'Allān provided a detailed description of various joint ventures with Yaḥyā's father four years earlier, described how they were continued by Yaḥyā after

⁶¹ Goitein (1973), 105.

⁶² This draft speech for a legal appeal, in which this agency conflict is described, has the shelfmark Bodleian Library, Oxford University, shelfmark Bodl MS Heb a 3 f. 26; it is glossed and translated by Goitein (1973), Letter 17, 95-101, who dates it to 1041-2. It does not contain the passage quoted by Greif (1989b), 870.

his father's death, and claimed that Yaḥyā had rendered inaccurate accounts and failed to pay what was owed. Ibn 'Allān also described in detail the legal procedures which he had been undertaking against Yaḥyā – how he had appealed to the permanent court of Fustat on previous occasions against Yaḥyā, how he had proved the injury Yaḥyā had done to him 'with well-confirmed documents and honest witnesses', how he had asked the Fustat court to 'forward your findings to Qayrawān for the information of the court of Hananel [the chief Jewish judge there]', and how the Fustat court had provided a written record of its findings for him to show in the court in Qayrawān.⁶³ He stated explicitly that he decided to use Jewish and gentile (i.e. Muslim) legal mechanisms because of the failure to reach an out-of-court settlement:

I had also thought that this [Yaḥyā] would reconsider the affair and return to the right way ... so that I would not be forced to make known his doings to the communities of Israel in east and west, and in particular to the community of Jerusalem and the head of the high council there. I had hoped that he would spare me from disclosing my situation in the meetings of the gentiles and to their judges.⁶⁴

Thus Ibn 'Allān was pursuing this agency conflict against Yaḥyā in 1041-2 just as Abu 'l- Ṭayyib had pursued his debt case against Yaḥyā in 1040 – through formal legal procedures. To the extent that informal rumours or sanctions made an appearance at all in these two conflicts, they were in the context of the use of legal mechanisms by Maghribis. In the 1040 conflict with Abu 'l- Ṭayyib, general hostility and unwillingness to make payments to Yaḥyā were evoked by the appearance of the formal legal instrument of the power of attorney, through which Yaḥyā was to be sued in court. In the 1041-2 conflict with Ibn 'Allān, the possibility of spreading rumours about Yaḥyā in the wider community was mentioned side-by-side with reporting him to the head of the high council of Jews in Jerusalem and to the Muslim authorities and

⁶³ Goitein (1973), 96-8.

⁶⁴ Goitein (1973), 97.

judges. Neither of the disputes in which Yahyā was involved provides any evidence of agency conflicts being solved through an informal Maghribi traders' coalition.

Instead, both conflicts show Maghribi traders relying primarily on legal contract enforcement. Rather than accusations being levelled and punishments being imposed informally by a coalition of Maghribis, all Jews, as well as gentiles (and their courts) were involved. Moreover, these cases clearly demonstrate that the legal system was regarded as capable of enforcing debt claims and agency conflicts among merchants not just within the same local area but across the long distances involved in the Maghribis' international trading activities, since Qayrawān and Fustat were some 1300 miles apart.

These five cases contain no evidence of collective sanctions being imposed on any opportunist by the entire group of Maghribi traders. A form of punishment based on the existence of a social network, no different from that practised in many other commercial economies, historical and modern, does appear to have been used in some of the cases, but it involved the limited transmission of information to a narrow range of locations and social groups, primarily those directly associated with the conflicting parties. The claim that the Maghribis used the institution of the coalition to enable long-distance trade cannot, therefore, be sustained on the basis of these five cases. Some of the cases do, however, provide clear evidence that the legal system played a significant role in contract enforcement among the Maghribi traders, in sharp contrast to Greif's claim that the inadequacies of this system as a contract enforcement mechanism required the use of the hypothesised coalition.

Are there other ways of arguing that the Maghribis used a coalition to enforce contracts in long-distance trade, despite the absence of any direct evidence that they did so? We consider this question in the next section.

3. Further Aspects Of The Coalition Hypothesis

To assess the plausibility of the claim that the Maghribi traders enforced contracts by means of a coalition, it is useful to consider what economic theory suggests is necessary for such a mechanism to operate. When repeated interactions between the same two parties are rare, but members of a well-defined group interact repeatedly with other group members, although not with the same specific individuals, it is theoretically possible for contracts to be enforced informally within the group if all members have an incentive to punish any member who misbehaves. Greif uses an efficiency wage model with complete information to explain why all Maghribi coalition members might have had incentives to boycott a member who misbehaved.⁶⁵ In this model, merchants hire agents to provide trade-related services, and agents can behave opportunistically. Given that all hiring decisions are made in the framework of the coalition, the uncoordinated actions of member merchants can result in an equilibrium in which it is cheaper to hire an agent who has *not* behaved opportunistically than one who has. Hence all members strictly prefer to hire agents who have not misbehaved, i.e., each coalition merchant has an incentive to impose the collective punishment required by the coalition mechanism.⁶⁶ An opportunistic agent will be punished by never being hired again by any Maghribi.

Greif's theoretical model has some limitations as a basis for analyzing Maghribi contract enforcement. One is that business associations between Maghribi traders almost never involved one party paying a wage to another, and thus the

⁶⁵ Greif (1993), 532.

⁶⁶ Greif (1993), 534-5.

empirical basis of the model is doubtful.⁶⁷ Instead, Maghribi business associations typically involved traders reciprocally performing trade-related services for each other. But this means that opportunism on both sides was possible. Harbord (2006) has extended Greif's model to allow for opportunism on both sides, showing that, depending on parameter values, collective punishment can still be an equilibrium without requiring a positive wage, because both parties can act opportunistically towards their current trading partner. However, the conclusion that no wages are paid is not a general one but depends on suitable parameter values holding.

Another limitation of Greif's model, as Harbord points out, is that collective punishment can only be an equilibrium if one assumes either that all merchants can observe opportunism by any agent or that merchants can change agents costlessly. Neither assumption is compelling. Harbord shows that if Greif's model is extended to allow opportunistic agents to be punished by having to pay compensation rather than being permanently ostracized, then collective punishment can be an equilibrium without either of these unpersuasive assumptions. Allowing for compensation also permits the model to accommodate a small amount of uncertainty as to whether the agent has actually acted opportunistically or has alternatively been subject to exogenous risks such as shipwrecks. Unfortunately, however, there is little historical evidence to justify extending Greif's coalition hypothesis by allowing the informal contract enforcement mechanism to include the payment of compensation.⁶⁸

⁶⁷ According to Goitein (1967), 161-4, employment of one merchant by another was infrequent, while Goldberg (2005), 152-3, argues that it did not happen at all. See also Stillman (1970), 76; Harbord (2006), 4.

⁶⁸ Harbord (2006), 12, 19, refers to four cases as involving compensation. Two of them are derived from Greif (1993), 351-2: the case of Abūn b. Ṣadaqa in TS 13J 25.12, translated in Simonsohn (1997), Letter 105; and the case of Khallūf b. Mūsā in Bodl MS Heb a 3.13, translated in Goitein (1973), Letter 23. We discussed these cases in Section 2 and neither involves payment of compensation. The third reference is to Bodl. MS Heb. a 2.17, translated in Goitein (1973), Letter 18, which does not refer to payment of compensation but rather more generally to redressing the writer's grievances, and occurs in the context not of an informal coalition but rather of a formal legal conflict. The fourth reference is to TS 10 J 13.4, translated in Goitein (1973), Letter 51, which does not refer to payment of compensation

Kandori (1992) offers a more general theoretical model of collective punishment as a method of enforcing contracts when there are repeated interactions between members of a well-defined group. He considers a repeated Prisoners' Dilemma game played by different pairs of players drawn from the group. In each individual play of the game, there is an incentive for both players to act opportunistically, in which case the outcome is mutually harmful. Kandori shows that, even though a given pair of players is highly unlikely to interact more than once and there are incentives for opportunism on both sides, collective sanctions can sustain mutually beneficial outcomes under weak conditions, provided only that a costless mechanism accurately processes and transmits some information about group members. When interacting with another group member, an individual does not need full information about the entire group, but just an accurate summary statistic of the other's past actions (i.e. his 'reputation'). Thus the key informational requirement for a coalition-style contract enforcement mechanism is that accurate information about each member's reputation be costlessly transmitted to all group members.

The letters Maghribis wrote to each other did contain a lot of information about trade in different locations. But it is difficult to believe that they communicated information to all Maghribi traders quickly and accurately enough to meet the requirements for effective imposition of collective sanctions. Communications in the eleventh century were slow. Since the Maghribi traders' operations covered the whole of the Muslim Mediterranean, from Spain to Syria and Palestine, it would take many months for information about the opportunistic behaviour of a trader to be

but rather to an out-of-court settlement of a debt, and contains no evidence that this debt arises from an agency relationship between business associates.

communicated to all members of the group.⁶⁹ Goitein portrays contacts between Maghribis at the western and eastern ends of the Mediterranean as distant.⁷⁰ The difficulty of communications is illustrated by the case of one young merchant active in Jerusalem who, despite being an ‘eager letter writer’, was unsure whether his brother and father back in southern Spain believed ‘that I am still alive’.⁷¹ In another example, two brothers in Algeria wrote a letter to a third brother in Jerusalem a full year after he had died.⁷²

Even over shorter distances, the postal infrastructure extended westward only as far as the central Mediterranean (Tunisia and Sicily) and in the Levant only from Egypt to Aleppo. There was no regular way of getting letters from Egypt to Spain in the eleventh century; any news had to be carried by individual travellers. Thus only limited parts of the Maghribi trading area were covered by couriers and the commercial mail service. Within these parts, most letters arrived on a predictable schedule, but even then delays could last for months. Merchants sent multiple copies of letters to insure against loss and nonetheless often lamented long gaps in news from regular trading destinations.⁷³ Even between the major nodes of Fustat (Egypt) and Qayrawān (Tunisia), important information about major merchants was not always communicated swiftly or universally, as shown by a serious conflict between the merchant houses of Tahīrtī and ‘Awkal, in which the Jewish elders of Qayrawān questioned one of the Tahīrtī brothers about why his brother in Egypt was withholding money from the powerful Fustat merchant Yūsuf b. ‘Awkal, clearly ignorant of the

⁶⁹ On the slowness, difficulty, and high costs and risks of communication in the eleventh-century Mediterranean regions inhabited by the Maghribi traders, see Goitein (1967), 67, 69, 155, 273, 278-9, 284-5, 289-91, 297-300, 304, 314, 316-26, 339-46, 351; Udovitch (1975), 20-1.

⁷⁰ Goitein (1967), 69.

⁷¹ Cited in Goitein (1967), 69; and Goldberg (2005), 284-5.

⁷² Goitein (1967), 279; see also *ibid.*, 274 for additional examples of Maghribi merchants who lost touch with parents, offspring, or siblings.

⁷³ Goitein (1967), 281-95; Goldberg (2005), 213-6.

fact that the Tahīrtī brothers had been complaining about Ibn ‘Awkal’s negligence in transferring communal moneys and correspondence for some considerable time.⁷⁴

Were the information requirements of the coalition mechanism really satisfied in a context in which communications, even on important issues, were so slow and incomplete? Greif’s recent claim that the fast communications of the Maghribi merchants are demonstrated by the fact that ‘the Maghribis quickly coordinated a successful embargo on Sicily’⁷⁵ does not hold water. No evidence exists that such an embargo was organized, whether quickly or otherwise.⁷⁶

It might be argued that it does not matter if information travels slowly, as long as the eventual collective sanctions are sufficiently severe. This would be a reasonable argument if there were evidence of eventual collective sanctions. But, as we have shown in Section 2, there is no such evidence.

Information transmission must also be accurate, for a coalition-style contract enforcement mechanism to work. Bernstein shows that the informal collective sanctions used in the modern diamond and cotton industries rely on mechanisms (arbitration boards and tribunals) that evaluate competing claims about opportunism before demanding sanctions from industry members not directly involved in a dispute.⁷⁷ But Greif’s description of the putative Maghribi coalition does not include any neutral mechanism for assessing claims about opportunism, and there is no evidence that the Maghribi traders had an informal mechanism for this purpose.

⁷⁴ Stillman (1970), 65-7, 81-2, 195-212, 249, 252. This conflict resulted in a complete break between Ibn ‘Awkal and the Tahīrtīs, in which informal efforts at reconciliation failed and formal intervention by the Nagid (head of the local Jewish community) became necessary.

⁷⁵ Greif (2008), 15, referring to Greif (1994), 938.

⁷⁶ See Goldberg (2005), 305 with fn 141: although one merchant suggested that his fellows not send goods to Sicily in response to the imposition of a new tax, there is no evidence that merchants staged an embargo.

⁷⁷ Bernstein (1992, 2001).

On the contrary, there is plentiful evidence that the information conveyed among Maghribi merchants was not universally believed to be true. Whether because of communication delays, varying trading contexts, or false accusations, Maghribi traders' letters confirm the truism that there were two sides to any dispute between business associates. In one letter, competitors accuse a merchant in Fez of interfering with the trade of his business associate in Fustat, which the Fez merchant exposes as a deliberate plot to disrupt their business relationship.⁷⁸ In another, the Maghribi merchant Zakariyyā b. Ya'qūb al-Shāma writes that people in Tripoli have been saying 'things which caused me anguish, and things which a person like him [we do not know which person] should never have said . . . [May God] humiliate the liars and mend their ways'.⁷⁹ Abū Zikrī b. Qayūma from al-Mahdiyya found himself accused of trespassing on the trade of other merchants, and denied the allegation emphatically, 'claiming that these are baseless rumors, intended to motivate him to leave the city'.⁸⁰ Perhaps the most striking example is provided by a letter dating from the 1020s or 1030s written by the agent Mūsā b. Ishāq b. Ḥisda to his principal Yūsuf b. 'Awkal, in which the agent declares in emotional terms:

I am writing in a state of good health, but with a heart laden with anxiety which descended upon me when I read your letter. I would have thought that I was held in higher esteem by you than to have you address me so. That you should listen to such unjust words from a man like Yūsuf and others from whom come base things, and that you should become upset by it! I would not have thought that you would accept the words of others against me when you know the kind of person I have been and still am. Furthermore, you know my lineage. I am not such a one from whom would come such things as to warrant your letter.⁸¹

Such examples make clear that information about possible opportunism conveyed informally among Maghribi traders was far from unambiguous. How could such

⁷⁸ Gil (2003), 306.

⁷⁹ Gil (2003), 312.

⁸⁰ Gil (2003), 313.

⁸¹ Stillman (1974), 201.

questionable information, even if it was communicated swiftly, be used to trigger collective punishment? Or, if it was so used, how could such collective punishment be beneficial for contract enforcement, considering the disputed nature of the information on which it was based?

Given these doubts about the speed and accuracy of the information transmitted among the Maghribi traders, it is not surprising that Khallūf b. Mūsā in Palermo, writing to his business associate Yeshū‘ā b. Isma‘īl in Alexandria, said that ‘had I listened to what people say, I never would have entered into a partnership with you’.⁸² Khallūf had clearly *not* regarded the unfavourable information circulating about Yeshū‘ā as being solid enough to prevent the formation of their partnership. Greif notes that Khallūf’s remark suggests that he regretted ignoring the accusations of other Maghribi traders about Yeshū‘ā, but does not consider the broader implication of this remark, which casts doubt on the very existence of collective punishment by the putative coalition, since Khallūf had not participated in such ostracism (if any were imposed).⁸³ Geniza scholars document additional examples of relationships between Maghribi merchants in which accusations of unambiguous malfeasance failed to result in ostracism.⁸⁴

It might be argued that bilateral sanctions and formal legal contract enforcement *also* require information transmission.⁸⁵ This is undoubtedly true. But the information requirements for these enforcement methods are less stringent, and

⁸² Goitein (1973), 121-2.

⁸³ Greif (2006), 82. Greif (2008), 16, tries to claim that this was ‘most likely’ a conflict about ‘performance’ rather than ‘conduct’, but provides no evidence. In any case it is not obvious that there is a clear distinction between performance and conduct as it applies to agency relations.

⁸⁴ Stillman (1970), 81-2, 280-3, discusses a letter in which Mūsā b. Ishāq b. Ḥisda in Tunisia writes to his principal Yūsuf b. ‘Awkal in Fustat to tell him that the Tahīrtī brothers had disobeyed his request to repack some silver and ‘send it on with trustworthy merchants’ and had instead melted it down and sold it. No-one ostracized the Tahīrtīs for this unethical action, and even Ibn ‘Awkal went on doing business with them for another four years before breaking off relations over a different conflict relating to communal affairs (see *ibid.*, 65-7, 101, 111).

⁸⁵ This is the argument of Greif (2008), 17.

individual incentives stronger, than for a coalition. Bilateral sanctions or legal enforcement require information to travel between two or at most three parties (accuser, accused, and – for legal enforcement – the court or judge), not to all Maghribi traders throughout the Mediterranean. Moreover, all parties to bilateral relationships or court cases have strong incentives deliberately to incur the costs of transmitting information, since it affects them directly. This contrasts with the hypothesised coalition, where the benefits of transmitting information swiftly and accurately are widely diffused, and hence low for any uninvolved individual.

The evidence suggests that the main requirement for the putative coalition to operate effectively as an informal contract enforcement mechanism – accurate transmission of information about each Maghribi trader’s reputation to all members of the group – was unlikely to have been satisfied. This is consistent with the conclusion that emerged from our discussion of the direct evidence for the existence of the coalition: there is no evidence of collective sanctions being imposed on opportunists.

However, Greif claims that the lack of documentary evidence of any collective punishment actually operating among the Maghribi traders does not invalidate his hypothesis, because ‘punishment is off-the-equilibrium path and rare events are not likely to appear in the historical documents’.⁸⁶ There are theoretical and epistemological problems with this assertion. Greif’s collective punishment is based on the theory of repeated games. Punishment is indeed off the equilibrium path in repeated games, provided that all players can perfectly observe the past actions of all other players. However, as we have argued above, the Maghribi traders were almost certainly unable to observe perfectly the actions of all other members of the putative coalition. In such circumstances, Greif’s claim is incorrect: punishments do occur on

⁸⁶ Greif (2008), 22, reiterating arguments advanced earlier, e.g. in Greif (1989), 868.

the equilibrium path of play.⁸⁷ The theoretical basis for the claim that collective punishment should not be observed because it is off-equilibrium is thus very weak.

Greif's claim also has an epistemological problem. If accepted, it would imply that one could argue that *any* institution exists (even if there is no evidence for it) by claiming that it is an institution which creates beliefs that obviate the need for the institution actually to operate. The lack of evidence for the institution's existence can then always be discounted as demonstrating that the institution is perfectly successful. Such an argument undermines the entire basis of empirical social science. Threats of what might happen if some behaviour were to take place may indeed sometimes prevent that behaviour from occurring. But a convincing claim that the threats are actually important in deterring the behaviour requires better evidence than merely the absence of the behaviour.⁸⁸

A central component of Greif's hypothesised coalition is the claim that Maghribis formed business associations for long-distance trade only with other Maghribis.⁸⁹ But the evidence shows clearly that this was not the case: Maghribis formed long-distance trading associations outside their own group.

Greif acknowledges that evidence of business association between Maghribi and non-Maghribi traders exists, but claims that it is rare.⁹⁰ The basis for his claim appears to be the fact that only two of the 97 traders mentioned in the letters of Nahray b. Nissīm (the most important Maghribi trader in Fustat in the middle of the

⁸⁷ Mailath and Samuelson (2006), chs. 7, 12.

⁸⁸ The claim in Greif (2008), 22, fn 33, that regarding the lack of direct evidence that the Maghribis operated a coalition as invalidating the multilateral reputation view 'is equivalent to arguing ... that because there was no nuclear confrontation during the Cold War, the threat of nuclear response could not have contributed to preventing a conventional war' is incorrect. There is plenty of evidence (other than the absence of a nuclear war) both that there existed a threat of nuclear response during the Cold War period, and that awareness of it played a role in political decision-making during that period, thus contributing to the prevention of conventional war. In contrast, there is absolutely no evidence that the Maghribis operated a coalition.

⁸⁹ Greif (1989a), 104-05; Greif (2008), 25.

⁹⁰ Greif (1989b), 877, Greif (1993), 536.

eleventh century) were Muslims. It is true that there is only limited evidence of Maghribis conducting long-distance trade with non-Maghribis, but this is partly a reflection of sample selection bias. As Goitein points out, the archive that provides virtually all our information about the Maghribi traders is a Geniza, a synagogue storeroom in which all writings which might bear the name of God were supposed to be deposited, so 'it is natural that it should deal mainly with the commercial activities of Jews and between Jews'. Despite this sample selection problem, and all the practical reasons for coreligionists to travel, work, trade and litigate within their own denomination, Goitein concludes that

the same Geniza letters reveal an astonishing degree of inter-denominational cooperation ... Partnerships and other close business relationships between Jews and Muslims, or Hindus, or Christians were commonplace.⁹¹

This conclusion is borne out by Stillman's study of the letters of the Maghribi merchant Yūsuf b. 'Awkal. So accustomed was Ibn 'Awkal to doing business with Muslim agents that he corresponded with them in Arabic script (the Maghribis typically wrote to each other in Hebrew script).⁹² It is likely that some of Ibn 'Awkal's Muslim agents were doing relatively straightforward tasks such as purchasing and packing flax on his behalf.⁹³ However, Stillman states that

most of Ibn 'Awkal's agents were not employees, but rather smaller, and not so small, merchants who provided services to the House of Ibn 'Awkal not for any commission, but in order to request similar, reciprocal services from such an influential and well-connected business house.⁹⁴

This strongly suggests that some of Ibn 'Awkal's Muslim agents were engaged in long-distance trade relationships with him, a conclusion that is supported by the fact

⁹¹ Goitein (1966), 350.

⁹² Stillman (1973), 23 with fn 3, referring to TS 12.227 (No. 13): 'The account statement will reach you – God willing – either in Hebrew letters in my own hand-writing or in Arabic script in the hand-writing of I[bn all-...]' . Full translation in Stillman (1970), 365-70.

⁹³ Stillman (1973), 20.

⁹⁴ Stillman (1973), 23.

that Ibn ‘Awkal’s goods in Alexandria were handled by at least two different Muslim agents on different occasions.⁹⁵

Gil also documents a variety of business associations between Maghribi and non-Maghribi traders. Yūsuf b. ‘Awkal, Gil points out, was also engaged in business dealings with Christian merchants in Alexandria.⁹⁶ Another Maghribi trader, writing from Mazara in Sicily, refers to the trading of oil by a partnership of Jews and Muslims, and states that he himself has ‘no individual share in this oil; all of it is in partnership between me and some Muslims and Jews, people of Sicily’.⁹⁷ Still another partnership between a Maghribi merchant and a Muslim gave rise to a dispute which was resolved co-operatively between the Muslim and Jewish law-courts when the *qāḍī* (Muslim judge) explicitly requested the involvement of the *dayyān* (Jewish judge).⁹⁸ Gil also refers to a Muslim who was involved in long-distance trade with several different Maghribi merchants.⁹⁹ According to Goldberg, this same Muslim had a trading relationship with yet another Maghribi.¹⁰⁰

The clear evidence that Maghribi traders formed long-distance trade associations with non-Maghribis provides another reason to reject the coalition hypothesis. This is not to claim that Maghribi trade in the eleventh-century Mediterranean was primarily based on associations with non-Maghribis, but simply to note that such associations, which are inconsistent with the coalition hypothesis, did exist. The existence of these associations, combined with the absence of any evidence that a coalition existed, suggests that long-distance trade in the eleventh-century Mediterranean was not based on collective punishments generated by multi-stranded

⁹⁵ Stillman (1970), 314 (agent named Ibn Rustam); 350-2 (agent named Muhammad).

⁹⁶ Gil (2004a), 687.

⁹⁷ Gil (1983a), 122.

⁹⁸ Gil (2003), 281.

⁹⁹ Gil (2003), 281-2.

¹⁰⁰ Goldberg (2005), 90-1.

interactions within the closed network of the Maghribi traders, but rather sustained by other contract enforcement methods. We discuss these in the next section.

4. How Did the Maghribi Traders Sustain Long-Distance Trade?

As we have seen, there is no evidence that the Maghribi traders used a coalition as an informal contract enforcement mechanism. They did, however, trade throughout the Mediterranean during the entire eleventh century, with non-Maghribis as well as Maghribis. Evidently they had mechanisms that enabled the contracts involved in long-distance trade to be enforced. What were these?

To answer this question, we begin by noting that the Maghribi traders made use of a legal system that was formal and public in the sense that it was not a private-order institution generated by Maghribi merchants themselves, but rather consisted of legal mechanisms that were accessible to the wider population. In the Muslim Mediterranean during this period, non-Muslims could bring their cases either to the courts of the religious community to which they belonged or to the Muslim legal system.¹⁰¹ Thus the Maghribi traders' first resort was to the Jewish legal system – a formal and public set of mechanisms open to all Jews, not just Maghribis or merchants, and used for resolving a wide array of issues, not just commercial conflicts. But the Maghribi traders also made use of the Muslim legal framework, as the Geniza documents reveal. Even in Jewish courts, the legal form of partnership that was used as the basis for business associations was typically the Muslim, not the

¹⁰¹ Goitein (1967), 66-8; Goldberg (2005), 200-01.

Jewish, one.¹⁰² Furthermore, although civil cases were largely brought before Jewish courts,

actions or deeds made before a *qādī* (Muslim judge) are often referred to. Frequently, and for reasons which still need clarification, the same transaction was made both before a Muslim and a Jewish court, or one part was brought before a public tribunal and a complementary action before a Jewish court.¹⁰³

Thus if a Maghribi trader failed to secure adequate legal remedy from the Jewish legal system, he could then appeal beyond it. Goitein describes how if a Jew failed to pay his debts, Jewish court officials would ‘bring him before the government’, going so far as ‘to reserve themselves the right to “extradite” him to the Muslim authorities’.¹⁰⁴ A debt dispute between Maghribi merchants could also be ‘brought before the sultan’, who evidently also provided formal, public contract enforcement to which Maghribi traders sometimes voluntarily resorted.¹⁰⁵

Both in principle and in practice, therefore, the Maghribi traders had formal legal mechanisms at their disposal. Did these mechanisms contribute to contract enforcement in long-distance trade?

Consider first the basis upon which Maghribi traders established business associations. They did so in two main ways. One involved mutual service agency between business friends. The specific term most commonly used by the merchants for this form of association was *ṣuḥba*, which Goitein translates as ‘companionship’ or ‘formal friendship’.¹⁰⁶ Such an association was not based on a written contract, and involved merchants performing services for each other without being remunerated, on

¹⁰² Goitein (1967), 72, Udovitch (1962), Udovitch (1970); Goldberg (2005), 208. See Ackerman-Lieberman (2007), esp. 75-7, 195-6, on distinctively Jewish legal norms used for trading partnerships in this period.

¹⁰³ Goitein (1955), 79.

¹⁰⁴ Goitein (1967), 259-60 with note 192 (quotation); Goldberg (2005), 201.

¹⁰⁵ Gil (2003), 299.

¹⁰⁶ Goitein (1967), 169; Goitein (1971), 486-8.

the understanding that an equal exchange of services was required.¹⁰⁷ The other main way in which business associations were conducted involved formal legal partnerships. Such business partnerships were a well-developed legal institution that set out formally the various aspects of an economic relationship between contracting parties, such as their investments, their shares in profits and losses, and the times at which accounts were to be rendered.¹⁰⁸

There is lively debate among Geniza scholars about the relative importance of the two types of business association, with some arguing that informal mutual service agency was all but universal, while others argue that the role of legal partnership has been under-emphasized. Thus Goitein writes that informal cooperation between business friends ‘was the main pattern of international trade’ and that such trade ‘was largely based, not upon cash benefits or legal guarantees, but on ... mutual trust and friendship’.¹⁰⁹ At the other end of the spectrum, Gil argues that his corpus of 818 Geniza merchants’ letters shows that all Maghribi business associations ‘were based on a deed formulated by the court, in which the parties of the partnership were specified, as were the other conditions’.¹¹⁰ Quantitative estimates also differ. Udovitch estimates that in terms of number of transactions, informal business cooperation is referred to 15-20 times more often than legal partnership.¹¹¹ Using a much larger sample of letters, Goldberg estimates that in terms of proportion of text, three quarters of discussion in merchant letters is devoted to mutual service agency and only one quarter to legal partnership, although she points out that this perceived difference may arise partly from the fact that the Geniza materials consist mainly of letters, a type of

¹⁰⁷ Goldberg (2008), 16.

¹⁰⁸ For a detailed discussion, see Goitein (1967), 169-79; Udovitch (1970); Ackerman-Lieberman (2007).

¹⁰⁹ Goitein (1967), 165, 169.

¹¹⁰ Gil (2003), 274-5 fn 2.

¹¹¹ Udovitch (1977), 73.

document in which informal cooperation is more likely to be mentioned: ‘If we only had contracts, as we do for the European side, patterns of labor service would look more similar.’¹¹² Ackerman-Lieberman, too, argues that scholars’ focus on private letters and their relative neglect of the legal material in the Geniza papers has contributed to an excessive emphasis on informal business associations and an unjustifiable dichotomy between informal and formal contract enforcement.¹¹³ Geniza scholars thus disagree about the ratio between mutual service agency and formal legal partnership in actual practice, but most acknowledge some non-trivial use of formal contracts.¹¹⁴

Even mutual service agency did not operate completely independently of the legal system. A *ṣuḥba* was undertaken between a specific pair of individuals and was not typically transferrable to third parties.¹¹⁵ It allowed one of the pair (the principal) to initiate a contract unilaterally by means of written instructions in a letter that made the other (the agent) responsible for specified tasks, such as selling some goods in a particular location and buying others with the proceeds. The agent was free to refuse particular tasks, but had a responsibility not to abandon the goods specified by the principal. The rights and responsibilities of agency – the legal control over goods that one does not own – were clearly defined in both Muslim and Jewish law.¹¹⁶

According to Goldberg, although a *ṣuḥba* was not based on a written contract, merchants understood it as a formal relationship, since actions under a *ṣuḥba* could involve a lawsuit. The principal had no legal redress if the agent did not follow the principal’s instructions, but he could sue the agent for either the goods or the proceeds

¹¹² Goldberg (2005), 84, 152 fn 74 (quotation), 153-4.

¹¹³ Ackerman-Lieberman (2007), 1-3, 158-62, 195-7.

¹¹⁴ On the use of formal partnerships, see Goitein (1967), 169-79; Goitein (1971), 486-8; Gil (2003), 274-5 fn 2; Udovitch (1977), 73; Goldberg (2005), 84, 152-4; Ackerman-Lieberman (2007), 2-3, 159-62, 195-7; Stillman (1970), e.g. 78-9.

¹¹⁵ Udovitch (1977), 74-5; Goldberg (2005), 154, 300-01, 398, 417.

¹¹⁶ Goldberg (2008), 14.

from their sale under the law of agency.¹¹⁷ Thus the absence of a legal document setting out the basis for mutual service agency did not mean that such business associations took place wholly independently of the legal system. Nevertheless, the role of the legal system in providing a basis for mutual service agency was clearly smaller than it was for legal partnerships. Hence *ṣuḥba* relationships took place among Jewish merchants who were regarded by the merchant community as trustworthy.¹¹⁸ This network of responsible individuals was referred to by the merchants in the Geniza materials as *aṣḥābunā*, ‘our associates’ or ‘our companions’.¹¹⁹

Formal partnerships, by contrast, were not only based on legal contracts but could also be formed with a wider group of individuals: ‘merchants entered into partnerships not only with members of the *aṣḥābunā* network, but with Muslim merchants and Jewish merchants outside the network’.¹²⁰ According to Goitein, ‘more often than not, informal cooperation was accompanied by one or more partnerships concluded between the correspondents, frequently with additional partners’,¹²¹ and ‘informal business cooperation could last for a lifetime, even for several generations. Formal partnerships were of short duration in principle and limited to specific undertakings ...’.¹²² Formal partnerships thus often appear to be used within the framework of an informal cooperation between two merchants, either to deal with a particular joint venture between the two parties, or to accommodate others in addition to the two parties in a venture.¹²³

¹¹⁷ Goldberg (2008), 17.

¹¹⁸ Goldberg (2008), 17.

¹¹⁹ Udovitch (1977), 78; Goldberg (2008), 11; Goldberg (2005), 177-80.

¹²⁰ Goldberg (2008), 19.

¹²¹ Goitein (1967), 167; the frequent co-existence of mutual service agency and legal partnership is confirmed by Goldberg (2005), 173.

¹²² Goitein (1967), 169-70.

¹²³ For an example, see Cohen (2008), where Judah b. Moses b. Sighmār entered in to a formal partnership for a specific venture in ambergris with his long-time business ‘friend’ Abraham ha-Kohen

The coexistence of such long-term mutual service agencies or ‘formal friendships’ with short-term legal partnerships for particular ventures suggests that *both* the legal system *and* an informal mechanism played some role in Maghribi contract enforcement.¹²⁴ But as described by Goitein this informal mechanism was based on repeated *bilateral* interactions between the same parties, in which any opportunism would have resulted in *bilateral* punishment. This is not the same as the coalition mechanism hypothesised by Greif, based on repeated interactions among members of a well-defined but much larger group, in which opportunism against one member would result in *collective* punishment by the entire group.

It was, of course, possible for a Maghribi trader to form business associations with many different individuals, so a question that has to be answered is how could bilateral punishments be effective in such circumstances? Opportunism by one party might end a particular bilateral relationship, but if information about this opportunism is not available to others with whom the opportunist can establish a new relationship, it is not clear that the ending of the bilateral relationship in question provides enough of a sanction to deter opportunistic behaviour. Ghosh and Ray (1996) address this question in a model where a form of Prisoners’ Dilemma game is played repeatedly between pairs drawn from a group containing two types of player. The first type is always opportunist, but the second comprises potential cooperators who may be able to achieve mutually beneficial outcomes despite the immediate incentive for opportunism. In this model, a player who encounters a new opponent does not know anything about this opponent’s previous behaviour: she only knows what actions she and her various opponents have taken in the past. Thus in the Ghosh-Ray model no

b. Faraj al-Rahbī; despite the fact that no legal contract is mentioned, Judah takes for granted that he can sue Abraham in Jewish or Muslim courts when the partnership goes bad.

¹²⁴ This is also the assessment of recent studies, based on additional corpuses of Geniza documents, such as Goldberg (2005), 84, 152-4; and Ackerman-Lieberman (2007), 2-3, 159-62, 195-7.

information is available about a new opponent's reputation, in contrast to the Kandori model discussed in the previous section. Players in the Ghosh-Ray model have the option of continuing to play old opponents in subsequent repetitions of the game. The cooperative equilibrium in this model, if it exists, is one in which pairs of potential cooperators form long-term relationships after having successfully revealed their types to each other through experimental initial cooperation. The relatively high level of cooperation between pairs of potential cooperators after the initial stage is sustained by the threat of breaking off the relationship in response to opportunism. This threat is credible because of the presence of opportunistic types: a potential cooperator who loses such a partner will not automatically find a new one of the same type. The presence of a sufficiently large proportion of opportunists is required for the cooperative equilibrium to exist: if this proportion is too small, opportunism by the potential cooperators will not be deterred. Thus bilateral sanctions could deter opportunism by a Maghribi trader who had the possibility of forming associations with many different individuals, provided that there were enough traders who would always act opportunistically.

The Maghribi traders' use of an informal enforcement mechanism based on repeated bilateral interactions was facilitated by other aspects of their trading arrangements. Transactions were carried out in public. Clerks recorded the details of sales and shipments that were opened. But members of the broader merchant community witnessed these acts as well.¹²⁵ These witnesses were often *aṣḥābunā*, and 'by conducting most actions in front of these witnesses, merchants gave themselves access to redress from the Jewish court in addition to that of Muslim courts'.¹²⁶

¹²⁵ Goldberg (2005), 1-2, 179; Goldberg (2008), 10.

¹²⁶ Goldberg (2008), 11 (quotation); Goldberg (2005), 205.

The *aṣḥābunā* network was clearly an important element in the array of contract enforcement mechanisms available to these merchants. But this network is very different from Greif's hypothesised Maghribi traders' coalition. There is no evidence that the *aṣḥābunā* network was closed: if a non-member of the network established enough individual ties with existing members, he would gradually become a member himself.¹²⁷ According to Udovitch, the *aṣḥābunā* network did not constitute a group that had any characteristics distinct from the individuals who comprised it:

Informal business cooperation was a constellation of individual relationships whose skeins could tie together a fairly large number of people; but these bonds were never expressed in terms of membership of a group abstractly defined; rather, groups, insofar as they were defined, were defined in terms of individuals.¹²⁸

Both Udovitch and Goldberg find that the Maghribi traders did not consist of a single, cohesive, and well-defined coalition, but rather formed multiple, overlapping networks; individual Maghribis also undertook business connections extending into different networks.¹²⁹

The *aṣḥābunā* network, like business networks in many later economies, undoubtedly provided some social sanctions that supplemented the bilateral enforcement mechanism based on repeated interactions between the same two parties. A network member who cheated an associate would be likely to suffer harmful effects which extended beyond the sanctions imposed by his victim. But the existence of such sanctions is not inconsistent with the legal system also playing a role in contract enforcement, especially since, as we have seen, business associations were not restricted to the *aṣḥābunā* network and a non-trivial share of them were based on formal partnerships.

¹²⁷ Goldberg (2005), 37; Goldberg (2008), 12.

¹²⁸ Udovitch (1977), 74-5.

¹²⁹ Goldberg (2005), 155-6, 180-1, 185, 192-6, 243-4, 282, 289-95, 302-03, 396-8, 405, 412-4; Udovitch (1977), 74-5.

There is direct evidence that the Maghribi traders made use of the formal legal system as well as informal contract enforcement mechanisms to sustain long-distance trade. Maghribi traders complained in Jewish courts against fellow merchants who had failed to repay loans, employed Jewish courts to appoint representatives to collect debts for them from distant business associates, and called in the Jewish authorities when cheques were not honoured. But they also used the broader legal system of non-Jewish courts, resolving disputes with Muslim trading partners in front of Muslim and Jewish judges, making use of Muslim courts to have deeds drawn up recording debts owed them by other Jewish traders, and bringing large debt cases involving both local and foreign merchants before the sultan.¹³⁰ Resort to the ‘gentile’ (i.e. Muslim) courts was openly envisaged by Maghribi traders suing business partners, as in 1085 when Judah b. Moses b. Sighmār issued a power of attorney to Eli b. Yahyā in litigation against his business partner Abraham ha-Kohen b. Faraj al-Rahbī, stating explicitly that he ‘appointed him [Eli] to make the claim in any court he wants, even with the assistance of gentiles’.¹³¹

The use of the legal system alongside other methods of contract enforcement is consequently taken for granted by Geniza scholars other than Greif. Goldberg finds that ‘merchants threatened action, sent and discussed powers of attorney, prepared testimony for hearings, and requested provision of documents [for] upcoming actions in just over 5 percent of their letters’.¹³² Greif has recently made much play with this figure, claiming that it supports his view that the legal system was unimportant in

¹³⁰ For a selection of examples of Geniza merchants resolving conflicts over business associations using legal mechanisms, see Goitein (1967), 68-9; Gil (2003), 298-9, 308, 314; Goldberg (2005), 200-08; Cohen (2008).

¹³¹ Archival reference Bodl. MS Heb. c 28.11, 2 March 1085, here lines 26-27; cited according to the translation in Cohen (2008).

¹³² Goldberg (2008), 24-5.

Maghribi contract enforcement.¹³³ But in the absence of comparative studies of merchant correspondence in other economies, it is impossible to assert that 5 percent of Geniza merchant letters mentioning legal proceedings is either very low or very high. Would legal action be mentioned in more or fewer than 5 percent of merchant letters in European economies such as Italy or Flanders, where merchants indubitably resorted to legal contract enforcement – in the 125,549 surviving letters of the Prato merchant Datini (1363-1410), for instance, or the 1150 surviving letters of the Antwerp merchant Van der Molen (1538-1544)? Without answers to such questions, the figure of 5 percent cannot be taken as evidence that the Maghribi traders were distinctive in avoiding formal legal contract enforcement.¹³⁴

We must also consider the problem of sample selection bias in the Cairo Geniza, our sole source of evidence on the activities of the Maghribi traders. Scholars other than Greif acknowledge the probability that the Geniza letters under-represent the use of formal legal mechanisms and interactions with non-Jewish individuals and institutions. As emphasised in separate contexts by Goitein, Stillman, and Goldberg, the Geniza archive is likely to under-represent any type of legal conflict recorded in Arabic script, which was how such a conflict would probably be described if it came before the Muslim courts.¹³⁵ Goldberg points out that the reliance on personal letters for the Maghribi traders but on legal contracts for medieval European merchants exaggerates the perceived difference between their patterns of business association, and that Maghribi merchant letters under-represented government institutions because ‘writers took these structures for granted and did not need to devote the same degree

¹³³ Greif (2008), 1, 3-5.

¹³⁴ Counter to the attempt by Greif (2008), 4-5, to assert such an argument. One could as well argue that the finding in Goldberg (2005), 162, that less than one percent of Geniza letters mention merchants’ reputation for rectitude (the type of reputation at centre-stage in Greif’s coalition) means that this type of reputation was unimportant to the Maghribi traders.

¹³⁵ Goitein (1966), 350; Stillman (1970), 58; Goldberg (2005), 142 fn 44.

of space in their letters to discussing their management as they did for structures they maintained themselves'.¹³⁶ Ackerman-Lieberman goes further, arguing that the almost exclusive reliance on letters, and the lack of analysis of legal materials from the Geniza, has resulted in an over-emphasis on informal enforcement.¹³⁷

In the present state of research, what Goldberg's quantitative findings – and the research of most other Geniza scholars – indicate is that the Maghribi traders took for granted the existence of a formal court system to which they could, if necessary, take conflicts with business associates that they failed to solve in any other way. This is precisely the conclusion Goldberg herself reaches:

The credibility of this threat [of legal action] is made clear by fragmentary records from a number of eleventh-century mercantile lawsuits. ... Perhaps most important in this regard is not the evidence of redress of failure, but how common the safeguard of witnessing was: discussion and securing of witnesses of course appears in nearly every potential lawsuit, and are taken for granted in market acts, but merchants requested or surrounded themselves with witnesses in many other situations where probity could be at stake, such as valuation of goods not sold, or opening of bales lodged in a merchant's warehouse to verify contents.¹³⁸

The advantages of a court judgment as a last resort if out-of-court negotiations failed were explicitly recognized by the Maghribi merchant Ibn Sighmar in issuing power of attorney to litigate against his defaulting business partner in 1085: 'If something can be agreed upon outside of court among you ... you should all do it. If not, a court judgment would be the most decisive thing.'¹³⁹

Geniza scholarship also does not support Greif's recent claim that Maghribi traders' use of the legal system was involuntary and limited to either inheritance conflicts where legal involvement was mandatory or trading relationships with non-

¹³⁶ Goldberg (2005), 152, 187.

¹³⁷ Ackerman-Lieberman (2007), 1-3.

¹³⁸ Goldberg (2008), 24-5.

¹³⁹ Archival reference Bodl. MS Heb. d 66.5, 2 March 1085, here lines 5-7; cited according to the translation in Cohen (2008).

Maghribis.¹⁴⁰ Some legal conflicts were certainly between Jewish and non-Jewish business associates, but this merely reinforces the fact that, counter to Greif's claim, Maghribi traders did not form a closed coalition, but rather engaged in long-distance trading relationships with outsiders, precisely because they could resort to legal contract enforcement if necessary.¹⁴¹ However, other legal conflicts over business associations were purely between Maghribi traders themselves, showing that the Maghribis also used formal contract enforcement within their own community where, if Greif's postulated coalition had existed, this should not have been necessary. These legal conflicts took place while the parties were still alive.¹⁴² The most detailed surviving case, involving 11 court sessions in the Rabbinical Court of Fustat in the 1090s, shows that Maghribi Jewish traders used legal proceedings to resolve conflicts not just over ownership and division of moneys and goods but also over conduct of business associations.¹⁴³

¹⁴⁰ Greif (2008), 2, 4-7, 11, 14.

¹⁴¹ See, for instance, Gil (2003), 281 (conflict before the Jewish *dayyān* and the Muslim *qādī* between a Maghribi Jewish trader and his Muslim partner, early eleventh century), and Goitein (1973), 130 (a Maghribi Jewish merchant is owed money for a load of flax by another merchant, almost certainly Muslim, who also owes a large sum to 'the merchants', who therefore complain 'to the Sultan', who orders the accused to pay his foreign creditors in full but grants him a delay with local merchants until the foreigners leave town, c. 1063).

¹⁴² See, for instance, Gil (2003), 299 (conflict in the rabbinical court of Alexandria, also involving 'a deed which had been drawn up in a Muslim court', between two Jewish merchants, dated 1076); Gil (2003), 306-07 (conflict before a Jewish judge between a Jewish trader and his brother in Qayrawān over a joint business venture to Egypt, no date given); Gil (2003), 311-12 (deed of proxy from a Jewish merchant in Alexandria to a Jewish merchant in Fustat to represent him in court in a conflict with his Jewish former business partner from al-Mahdiyya, no date given); Goldberg (2005), 2-3 (accusations 'in front of Muslim authorities' ('the Sultān')) between several Jewish merchants in Sicily, over agency relationships concerning trade goods from Egypt, dated c. 1050); Goitein (1973), 95-101 (also referred to in Gil (2003), 288, 297, and Goldberg (2005), 297, as a lawsuit, but adduced by Greif (1989), 870, as a case of informal coalition-based enforcement) (Jewish merchant sues another Jewish merchant in the rabbinical court of Fustat, referring to previous legal proceedings in 'the court of the Nagid of the Diaspora', concerning various debts relating to business associations, dated 1041-2); Goitein (1973), 119-34, here esp. 120, 134 (a Jewish merchant of Palermo sues another Jewish merchant of Alexandria over a number of long-distance trading associations, before the court of a judge who later became Nagid (head) of the Jews in the Fatimid empire, with a final settlement by Jewish 'elders' who go through all the accounts and decide upon a complicated settlement, dated c. 1063); Cohen (2008) (a Jewish merchant in Alexandria issues a power of attorney to an associate in Fustat to litigate, in Muslim courts if necessary, against his former business partner who is currently visiting Fustat, over a partnership selling ambergris and buying brazilwood in Syria, document dated 1085).

¹⁴³ See, for instance, Goitein (1966), 330, 335-6, and Goitein and Friedman (2008), 13, 27-36, 167-281, a lawsuit in the Rabbinical Court of Fustat between two Jewish merchants (one from Fustat, the other

The Maghribi traders therefore used both formal and informal contract enforcement mechanisms to sustain long-distance trade. The informal methods they used included the social sanctions that resulted from the existence of the *aṣḥābunā* network, but this network was very different from the coalition hypothesised by Greif. In addition to informal mechanisms, the Maghribi traders also made use of the legal system to enforce contracts when this could not be avoided.

Were the Maghribis distinctive in their desire to avoid the legal system if possible, and their reliance on informal contract enforcement mechanisms in which a social network played an important role? Can it be argued that their contract enforcement mechanisms reflected a distinctive ‘collectivist’ culture which hampered their subsequent economic development? The next section addresses these questions.

5. Did the Maghribis Have Distinctive Contract-Enforcement Mechanisms and Cultural Beliefs?

The Maghribi traders are widely used to support the view that cultural beliefs determine which economic institutions arise and how successfully an economy develops. Greif counterposes the ‘collectivist’ cultural beliefs of the Maghribi traders (‘non-Muslims who adopted the values of the Muslim society’) with the ‘individualistic’ culture of the Genoese merchants (Italians and Christians).¹⁴⁴ Despite facing the same technology and the same commercial opportunities, he claims, the two groups adopted widely differing solutions to the problem of contract enforcement, with the Maghribis choosing institutions that provided collective enforcement while the Genoese chose ‘legal, political, and (second-party) economic organizations for

from Tripoli) over ‘informal commercial collaboration’ supplemented by formal contracts in trading ventures to Aden and India, 1090s, in which the principal accused the agent of having ‘sold textiles in the Red Sea port of Dahlak, against [his] express instructions’ (33).

¹⁴⁴ See Greif (1994), Greif (2006), 279, also chs. 3 and 9.

enforcement and coordination'.¹⁴⁵ This institutional divergence, Greif argues, was caused by a divergence in beliefs and values. The informal sanctions which the Maghribis used to enforce contracts, he asserts, reflect collectivist cultural beliefs which were poorly suited to developing the enforcement methods needed for large-scale trade and impersonal transactions. Cultural individualism, by contrast, supposedly prevented the Genoese from enforcing contracts informally and caused them to develop legal enforcement mechanisms, permitting large-scale anonymous trade. This in turn, according to Greif, led to long-term economic decline for the collectivist Maghribis and economic dominance by the Genoese and their individualistic fellow Italians. From this, Greif draws conclusions for the present-day less developed world: 'the Maghribis' institutions resemble those of contemporary developing countries, whereas the Genoese institutions resemble the developed West, suggesting that the individualistic system may have been more efficient in the long run'.¹⁴⁶

Greif uses his contrast between the 'collectivist' Maghribi coalition and the 'individualist' Italian legal system to support his more general propositions about how economists should explain institutions, arguing that the 'motivation provided by beliefs and norms ... is the linchpin of institutions'.¹⁴⁷ Others have taken up this view, with Aoki, for example, defining an institution as 'a self-sustaining system of shared beliefs about a salient way in which the game is repeatedly played',¹⁴⁸ and adducing the Maghribi traders as an example of a 'collectivist' culture generating institutions that render it 'inferior in its capacity to exploit new exchange opportunities'.¹⁴⁹

¹⁴⁵ Greif (2006), 300.

¹⁴⁶ Greif (2006), 300-01.

¹⁴⁷ Greif (2006), 39, 45.

¹⁴⁸ Aoki (2001), 10.

¹⁴⁹ Aoki (2001), 73.

But do the contract-enforcement mechanisms used by the eleventh-century Maghribi traders support these wide-ranging propositions? They do not. As we have seen, the Maghribis made use of the legal system to register the basis upon which long-distance trade ventures were undertaken, and took disputes concerning their business associations before courts of law. Of course, as we have noted, there are costs involved in using the legal system for contract enforcement and advantages to using informal methods where possible. As well as using the legal system, the Maghribi traders also used informal methods of contract enforcement, including practices involving some degree of sanction based on a social network.

But Italian and other European merchants in the medieval and early modern periods also used sanctions based on social networks to enforce contracts. Byrne argues that long-distance traders in twelfth-century Genoa chiefly relied on informal, verbal agreements based on mutual trust and personal reputation.¹⁵⁰ De Roover describes the thirteenth-century Italian merchant houses, indisputably the most advanced in their business methods of any in Europe, as favouring business relationships among kin and friends precisely because these enabled both parties to exert social pressure on one another.¹⁵¹ The business ledgers of the fourteenth-century Hanseatic merchant Hildebrand Veckinchusen show him selecting friends and relatives as business associates, precisely in order to facilitate the application of personal pressure in case of default on contracts.¹⁵² Sixteenth-century north German merchants, according to Ewert and Selzer, limited their Baltic trade to associations within the well-defined and exclusive network of the Hansa so as to enforce contracts

¹⁵⁰ Byrne (1930), 28-30.

¹⁵¹ De Roover (1948), 21.

¹⁵² See the published edition of these ledgers in Lesnikov (1973); on this characteristic of Veckinchusen's commercial behaviour, see Schweichel (2001), 350-1; Gies and Gies (1972), ch. 16.

through the mobilization of social pressure.¹⁵³ Seventeenth-century Dutch merchants, Gelderblom shows, favoured business deals among personal associates because that made it possible to apply social pressure when contracts appeared in danger of being broken, and to mobilize the strong non-economic incentives which friends and relatives had (and have) to settle disputes amicably.¹⁵⁴ Merchants from Genoa and other parts of Europe did not rely exclusively on the legal system to enforce contracts, therefore, but used a combination of formal and informal methods, including ones based on social networks, just as the Maghribis did. It is simply not possible to draw a sharp contrast between the contract enforcement methods used by the Maghribis and the Europeans.

The same finding emerges from studies of contract enforcement in modern developed economies. Modern economies do not rely heavily on the legal system to sustain transactions while abjuring the use of informal methods buttressed by social sanctions. Macaulay's findings concerning contract enforcement in the mid-twentieth-century USA have been confirmed by subsequent work on this and other modern developed economies.¹⁵⁵ Business transactions in such economies do contrast with those of the Maghribi traders in being typically based on formal contracts, although especially for routine transactions the contract does not reflect careful design but rather the use of standardised forms. But even in these modern economies, with their highly developed legal mechanisms, the cost of litigation and the difficulty of proving information in court mean that businesses do not make extensive use of the legal system to resolve disputes. Instead, they typically employ informal contract-enforcement methods, relying on sanctions imposed by the business community: the

¹⁵³ Ewert and Selzer (2005).

¹⁵⁴ Gelderblom (2003), 609-10, 616-17, 623.

¹⁵⁵ See Macaulay (1963, 1977, 1985); Beale and Dugdale (1975); Kenworthy et al. (1996); Arrighetti et al. (1997); and Kessler and Rubinfeld (2007).

legal system serves only as a last resort. Macaulay found that disputes between businesses about a transaction were more likely to be resolved informally, on the basis of repeated interactions over time in which the details of a business agreement were modified as events unfolded, than by resort to the formal legal system. An important component of these relational sanctions was the desire of both parties to continue in business. Each party was concerned both about how the other party would react to any dispute, which might mean loss of profitable future business through the other party's ending the association, and about how any dispute might affect its own wider reputation. This reputation depended on information circulated to uninvolved third parties, and a poor reputation was likely to damage a disputant's ability to engage in future transactions with those third parties:

Sellers who do not satisfy their customers become the subject of discussion in the gossip exchanged by purchasing agents and salesmen, at meetings of purchasing agents' associations and trade associations, or even at country clubs or social gatherings where members of top management meet. ... Obviously, a poor reputation does not help a firm make sales and may force it to offer great price discounts or added services to remain in business. Furthermore, the habits of unusually demanding buyers become known, and they tend to get no more than they can coerce out of suppliers who choose to deal with them.¹⁵⁶

But the relatively infrequent use of the formal legal system to enforce contracts did not, in Macaulay's view, mean that it was unimportant as a means of buttressing market transactions. The legal system affected the informal resolution of disputes by specifying the parties' outside options, and was often resorted to when relational sanctions could not work because long-term business relationships had collapsed.¹⁵⁷ It also influenced the norms governing informal dispute resolution: 'contract law ... stands for the idea that people should perform their commitments

¹⁵⁶ Macaulay (1963), 64.

¹⁵⁷ Macaulay (1985), 471.

unless they have a very good excuse [and] thus reinforces norms that are common in all business communities'.¹⁵⁸ These norms acted as an effective non-legal contract enforcement mechanism, which were reinforced by personal relationships across the boundaries of the two business units involved in a repeated association.¹⁵⁹

So widely replicated are Macaulay's findings that Granovetter uses them to illustrate his influential argument that economic behaviour in modern societies is embedded in networks of social relations that have major effects on economic processes.¹⁶⁰ Individuals and firms that are embedded in social networks risk losing these relations if they act opportunistically, so that embeddedness can deter such behaviour.

The extent to which modern economies rely on networks of social relations to govern transactions by using mechanisms associated with social attachments has been documented in many empirical studies, of which we have space to mention only a few. Larson found that strategic alliances between high-growth entrepreneurial firms in the USA depended extensively on personal reputations, individual friendships, and mechanisms of social control arising from norms of trust and reciprocity.¹⁶¹ Gulati reached a similar conclusion in his studies of alliances involving American, European and Japanese firms in the new materials, industrial automation, and car sectors. Networks provided useful information in forming new alliances and choosing partners, and circulation of such information among network members deterred opportunistic behaviour:

These 'embedded' relationships ... accumulate into a network that becomes a growing repository of information on the availability, competencies and reliability of prospective partners. ... The more the emerging network internalizes information about potential partners, the more organizations resort

¹⁵⁸ Macaulay (1994), 10.

¹⁵⁹ Macaulay (1963), 63

¹⁶⁰ Granovetter (1985), 496-7.

¹⁶¹ Larson (1992).

to that network for cues on their future alliance decisions, which are thus more likely to be embedded in the emerging network.¹⁶²

Gulati also found that alliance agreements became less formal if partners were embedded in social networks of previous alliances, suggesting that firms' participation in a network of alliances contributed to the building of trust between them.¹⁶³ Uzzi's studies of women's dress firms in New York City and midmarket banks in the Chicago area showed that commercial transactions were embedded in networks of social relationships which produced beneficial outcomes by promoting governance arrangements based on trust.¹⁶⁴

How do these embedded networks in modern economies compare to the Maghribis' *aṣḥābunā* network? According to Udovitch, new members were cautiously introduced into the *aṣḥābunā* network through the establishment of individual ties with existing members.¹⁶⁵ Within the *aṣḥābunā* network, if a new member 'turned out to be less than trustworthy, all parties had to be informed so that future relationships could be adjusted'.¹⁶⁶ Networks in modern economies have very similar characteristics. Larson found that the firms she studied saw themselves as part of an industry community, within which there was an inner circle of individuals and organisations with a very good reputation for business practices and performance: 'as a consequence, affiliation with respected individuals and organizations could lift new players into a higher status group of top industry names'.¹⁶⁷ Gulati showed that the information provided by the network of existing alliance partners was important in overcoming the risks associated with forming new inter-firm alliances.¹⁶⁸ Uzzi found

¹⁶² Gulati (1995b), Gulati and Gargiulo (1999), 1440 (quotation).

¹⁶³ Gulati (1995a).

¹⁶⁴ Uzzi (1997, 1999).

¹⁶⁵ Udovitch (1977), 76-7.

¹⁶⁶ Udovitch (1977), 77.

¹⁶⁷ Larson (1992), 84.

¹⁶⁸ Gulati (1995b), 643.

that embeddedness in the clothing and banking sectors developed from previous relationships in which an actor with embedded ties to two unconnected actors ‘transfers the expectations and opportunities of an existing embedded social structure to a newly-formed one, furnishing a basis for trust and subsequent commitments to be offered and discharged’.¹⁶⁹ In both Udovitch’s analysis of the *aṣḥābunā* network and studies of embedded economic transactions in modern economies, social networks play a very similar role in transmitting reliable information about the performance and trustworthiness of individual members to the group as a whole.

The Maghribi traders thus did not use contract enforcement practices that were fundamentally different from those of merchants in medieval and early modern Europe, or indeed businessmen in modern developed economies. Although transactions in modern economies are more likely to be based on a formal contract, disputes are often resolved using informal reputation-based methods, in which social networks and sanctions play an important role, and the legal system is typically employed for such purposes only as a last resort. The similarities between Maghribi, historical European, and modern contract enforcement methods are more striking than the differences.

A final claim about cultural differences advanced by Greif is that European ‘individualism’ led to the formation of family firms while Maghribi ‘collectivism’ instead led to the formation of a broader merchant coalition.¹⁷⁰ Greif argues that repeated interactions can only sustain informal contract-enforcement mechanisms if there is some way to overcome a trader’s incentive to behave opportunistically towards the end of his life. In Greif’s view, European merchants overcame this problem by establishing family firms, but the Maghribis did so by transferring

¹⁶⁹ Uzzi (1997), 48 (quotation), Uzzi (1999), 490.

¹⁷⁰ Greif (1994), 940-1.

coalition membership from father to son, so that concern about sanctions being imposed on the next generation deterred Maghribi traders from behaving opportunistically in old age. Greif portrays family firms as absent among the Maghribis, and interprets this as evidence that they preferred ‘collective’ over ‘individual’ solutions to problems of opportunism.¹⁷¹

But here too the premise of the argument is false. The Maghribi traders did form family firms. Stillman describes how the correspondence of the eleventh-century Maghribi merchant Yūsuf b. ‘Awkal shows that ‘as soon as each of his sons came of age, they became – so to speak – partners in the firm. Great family business houses of this sort are common in the Geniza records for this century.’¹⁷² According to Stillman,

In some respects the House of Ibn ‘Awkal is reminiscent of the *fraterne* which later were to dominate in Venetian business life. Most business undertakings were done entirely with the family’s capital. However, as in Venice, some business ventures were undertaken on the basis of short-term partnerships with others.¹⁷³

Goitein describes family partnerships between fathers and sons, uncles and nephews, and elder and younger brothers.¹⁷⁴ In several surviving cases, these partnerships were intended to ensure that the family business would outlast the death of one partner and survive across the generations, as in the case of Hillel b. Eli around 1090, whose will entrusted his brother (who was also his business partner) with administering the property of his minor children and expected him ‘to continue the partnership until it could be formally reinstated when the orphans came of age’.¹⁷⁵ Goldberg finds that a large corpus of Geniza merchant letters attests ‘the high proportion of business relationships based on close family ties’.¹⁷⁶ The Tāhertī family firm of Qayrawān

¹⁷¹ Greif (1989b), 875-6.

¹⁷² Stillman (1973), 21.

¹⁷³ Stillman (1970), 49, 71-2, 78 (quotation).

¹⁷⁴ Goitein (1967), 180-3.

¹⁷⁵ Goitein (1967), 180-1

¹⁷⁶ Goldberg (2005), 75; see also 175-6, 352.

‘ideally exemplify a family business’, according to Goitein, and are described in a letter written by an opponent as ‘one band, united by one spirit’.¹⁷⁷ Goitein explicitly likens the family firms of the Maghribis to those of the medieval Venetians,¹⁷⁸ and Stillman observes that ‘perhaps the greatest importance of the Ibn ‘Awkal correspondence, as far as socio-economic history is concerned, lies in the detailed picture that it gives of the organization of a medieval business house which was prominent long before the Medici in Florence, the Datini, or Pisani in Venice, the Grimaldi in Genoa, or the Arnolfini in Lucca.’¹⁷⁹ Furthermore, just as Maghribi merchants traded both in the form of family enterprises and as individuals, European merchants traded both as individuals and in the form of family firms.¹⁸⁰ Evidence on business forms used by the two sets of merchants does not support the idea of a fundamental cultural divide between them.

Commercial differences between the Maghribi traders and the Genoese, as well as the decline of Maghribi trading between the eleventh and the later twelfth century, can be explained without appealing to unobservable cultural differences. For one thing, the Jewish merchants in the Muslim Mediterranean lived as a minority under the rule of a Muslim Caliph, while the Genoese merchants enjoyed full rights as citizens in their own autonomous city-state, with obvious repercussions for the two groups’ respective economic privileges, legal entitlements, political influence, and relations with the majority population. For another, political and military instability increased commercial insecurity in the central Mediterranean from the mid-eleventh century on. This caused the Maghribi traders to reduce the geographical scope of their

¹⁷⁷ Goitein (1967), 180-1.

¹⁷⁸ Goitein (1967), 181.

¹⁷⁹ Stillman (1973), 83 (quotation); Stillman (1970), 166.

¹⁸⁰ On medieval European merchants see, for instance, Reyerson (2000), 63-4. Specifically on twelfth-century Genoese merchants, see Byrne (1916), 129-30 with fn 1, 134-5, 143-4, 150, 152, 156, 163-4, 169.

trade and intensify their involvement in intraregional commerce and local industrial production.¹⁸¹ The Genoese merchants, by contrast, were protected from commercial insecurity by the Genoese navy, partly because merchants were important in the Genoese polity. A third reason is that the frequency of merchant correspondence in the Fustat Geniza – the sole source of information about the Maghribi traders – was reduced in the later twelfth century when the most affluent Jewish merchants moved away from Fustat to New Cairo, the seat of the government. Finally, at the beginning of the thirteenth century, a powerful association of Muslim merchants, the Kārīmis, secured privileges from the political authorities granting it an extensive legal monopoly and excluding outsiders from participating in many aspects of trade.¹⁸² A number of observable characteristics of the constraints facing Maghribi traders thus differed from those facing the Genoese and changed over this period, and there is no need to appeal to an unverifiable cultural ‘collectivism’ to explain the decline of the former and the success of the latter.

6. Conclusion

This reappraisal of the medieval Maghribi traders has three broader implications. First, Greif’s portrayal of the Maghribis’ institutions and economic behaviour is untenable. Second, the Maghribis cannot be used to advocate exclusive, private-order social networks to enforce contracts and facilitate exchange in developing economies. Third, the Maghribis do not provide any foundation for a ‘cultural’ theory of development.

¹⁸¹ Stillman (1970), 17; Gil (2004b), 154; Goldberg (2005), esp. 251-2, 269-306, 397-400, 404.

¹⁸² For a sketch of these developments, see Goitein (1967), 148-9.

Not a single empirical example adduced by Greif shows that his hypothesised coalition actually existed. The evidence shows that the Maghribis, like businessmen in many other economies, enforced contracts by using the legal system alongside informal mechanisms based on reputation and repeated bilateral interactions. Sometimes they sought to supplement informal bilateral mechanisms by using social pressure based on a wider group of Maghribi traders, but this was restricted to social circles in contact with the conflicting parties and did not remotely encompass the entire community of Maghribi traders throughout the Mediterranean. Such use of social ties in business relationships is no different from that observed in many commercial economies, including medieval Italy, early modern Germany and the Netherlands, and twentieth-century America. In not a single case can a coalition in the form portrayed by Greif – private-order enforcement of commercial contracts through collective punishment by the entire Maghribi community – be observed in operation. We must therefore reject the hypothesis that there existed such an institution.

The Maghribis provide no support for the idea that the ‘social capital’ of exclusive, private-order networks offers institutional solutions for contract enforcement in developing economies. Other scholars find no support for Greif’s claim that merchants of Maghribi descent avoided agency relations with non-Maghribi Jewish traders and thus constituted a closed social network. Instead, like businessmen in most societies, the Geniza merchants formed multiple, overlapping networks, and individuals formed agency relations extending into different networks. These networks were not closed. Agency relationships existed between Maghribi and Muslim traders, precisely because the Maghribis were able and willing to enforce contracts in both the Muslim and the Jewish legal system. Like businessmen in most

economies, the Maghribi traders avoided litigation if possible, but they did use legal mechanisms to resolve conflicts with both Jewish and Muslim business associates.

Finally, the Maghribis provide no support for the ‘cultural’ theories of economic development for which they have been mobilized. Greif’s notion that the Maghribis espoused collectivist beliefs in contrast to the individualistic beliefs of the Italians is based on two assertions – that the Maghribis chose collective punishment through a closed coalition in preference to the Italians’ choice of individualized legal penalties; and that the Maghribis chose to transmit coalition membership to sons in preference to forming ‘individualistic’ family firms like the Italians. Neither assertion is supported by the evidence. Maghribis made voluntary use of legal mechanisms, and established family firms that are explicitly described by Geniza scholars as resembling (but pre-dating) the great merchant houses of medieval Italy. There is no evidence that the Maghribis were inherently more ‘collectivist’ than any other medieval trading culture. They cannot be used as the foundation for a cultural theory of development.

List of References

- Ackerman-Lieberman, P. "A Partnership Culture: Jewish Economic and Social Life Seen Through the Legal Documents of the Cairo Geniza." (Ph. D. dissertation, Princeton University, 2007).
- Aoki, M. *Toward a Comparative Institutional Analysis*. Cambridge, MA: MIT Press, 2001.
- Arrighetti, A., R. Bachman and S. Deakin. "Contract Law, Social Norms and Inter-Firm Cooperation." *Cambridge Journal of Economics* 21:2 (1997): 171-195.
- Beale, H., and T. Dugdale. "Contracts between Businessmen: Planning and the Use of Contractual Remedies." *British Journal of Law and Society* 2:1 (1975): 45-60.
- Bernstein, L. "Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry." *Journal of Legal Studies* 21:1, (1992): 115-157.
- Bernstein, L. "Private Commercial Law in the Cotton Industry: Creating Cooperation through Rules, Norms, and Institutions." *Michigan Law Review* 99:7, (2001): 1724-1790.
- Byrne, E. H. *Genoese Shipping in the Twelfth and Thirteenth Centuries*. Cambridge, MA: The Medieval Academy of America, 1930.
- Clay, K. "Trade without Law: Private-Order Institutions in Mexican California." *Journal of Law, Economics and Organization* 13:1 (1997): 202-231.
- Cohen, M. R. "A Partnership Gone Bad: a Letter and a Power of Attorney from the Cairo Geniza, 1085." In *The Sasson Somekh Festschrift* [not yet titled]. Edited by D. Wasserstein and M. Ghanaim, 2008 forthcoming.
- Costa, D. L., and M. E. Kahn. "Surviving Andersonville: the Benefits of Social Networks in POW Camps." *American Economic Review* 97:4 (2007): 1467-

1487.

De Roover, R. *The Medici Bank: Its Organization, Management, Operations and Decline*. New York: New York University Press, 1948.

Durlauf, S. N., and M. Fafchamps. "Social Capital." In *Handbook of Economic Growth*, edited by Philippe Aghion and Steven N. Durlauf, 1639-1699. Amsterdam / London: Elsevier, 2005.

Ewert, U.-C. and S. Selzer. "The Commercial Networks of Hanseatic Merchants: a "Modern" Organization of Trade at Work already during the Late Middle Ages?" Paper presented at the Workshop on Mercantile Organization in Pre-Industrial Europe, Antwerp, 18-19 Nov. 2005.

Faille, C. "Trading on Reputation." *Reason* January 2007 (2007).

Gelderblom, O. "The Governance of Early Modern Trade: the Case of Hans Thijs (1556-1611)." *Enterprise and Society* 4:4 (2003): 606-639.

Gies, J., and F. Gies. *Merchants and Moneymen: the Commercial Revolution, 1000-1500*. New York: Crowell, 1972.

Ghosh, P., and D. Ray. "Cooperation in Community Interaction without Information Flows." *Review of Economic Studies* 63:3 (1996): 491-519.

Gil, M. "The Jews in Sicily under Muslim Rule, in the Light of the Geniza Documents." *Italia Judaica. Atti del I Convegno internazionale Bari 18-22 maggio 1981* 2 (1983a): 87-134.

———. *Palestine During the First Muslim Period (634-1099) [in Hebrew and Arabic]*. Tel Aviv: Tel Aviv University Press, 1983b.

———. *A History of Palestine 634-1099*. Cambridge: Cambridge University Press, 1992.

———. *In the Kingdom of Ishmael [in Hebrew]*. Tel Aviv: Tel Aviv University

- Press, 1997.
- . “The Jewish Merchants in the Light of Eleventh-Century Geniza Documents.” *Journal of the Economic and Social History of the Orient* 46:3 (2003): 273-319.
- . *Jews in Islamic Countries in the Middle Ages*. Translated from the Hebrew by David Strassler. Leiden: Brill, 2004a.
- . “Institutions and events of the eleventh century mirrored in Geniza letters (Part I).” *Bulletin of the School of Oriental and African Studies* 67:2 (2004b): 151-167.
- Goitein, S. D. “The Cairo Geniza as a Source for the History of Muslim Civilisation.” *Studia Islamica* 3 (1955): 75-91.
- . *Studies in Islamic History and Institutions*. Leiden, E. J. Brill, 1966.
- . *A Mediterranean Society: the Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza, Vol. 1: Economic Foundations*. Berkeley / Los Angeles: University of California Press, 1967. Reprint, 1999.
- . “Mediterranean Trade in the Eleventh Century: Some Facts and Problems.” In *Studies in the Economic History of the Middle East*, edited by M. A. Cook, 51-62. Oxford: Oxford University Press, 1970.
- . “Formal friendship in the medieval Near East.” *Proceedings of the American Philosophical Society* 115:6 (1971): 484-489.
- . *Letters of Medieval Jewish Traders*. Princeton, NJ: Princeton University Press, 1973.
- . *A Mediterranean Society: the Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza, Vol. V: The Individual*.

- Berkeley / Los Angeles: University of California Press, 1988.
- Goitein, S. D. and M. A. Friedman. *India traders of the Middle Ages: documents from the Cairo Geniza ('India Book')*. Leiden / Boston: Brill, 2008.
- Goldberg, J. "Geographies of Trade and Traders in the Eleventh-Century Mediterranean." (Ph. D. dissertation, Columbia University, 2005).
- . "Merchants and Merchant Work in the Eleventh Century." Unpublished paper (2008).
- Greif, A. "The Organization of Long-Distance Trade: Reputation and Coalitions in the Geniza Documents and Genoa during the Eleventh and Twelfth Centuries" (Ph.D. dissertation, Northwestern University, 1989a).
- . "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders." *Journal of Economic History* 49:4 (1989b): 857-882.
- . "Contract Enforceability and Economic Institutions in Early Trade: the Maghribi Traders' Coalition." *American Economic Review* 83:3 (1993): 525-548.
- . "Cultural Beliefs and the Organization of Society: a Historical and Theoretical Reflection on Collectivist and Individualist Societies." *Journal of Political Economy* 102:5 (1994): 912-950.
- . *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*. Cambridge: Cambridge University Press, 2006.
- . "Contract Enforcement and Institutions among the Maghribi Traders: Refuting Edwards and Ogilvie." *CESifo Working Papers* 9610 (2008).
- Granovetter, M. "Economic Action and Social Structure: the Problem of Embeddedness." *American Journal of Sociology* 91:3, (1985): 481-510.
- Gulati, R. "Does Familiarity Breed Trust? The Implications of Repeated Ties for

- Contractual Choice in Alliances.” *Academy of Management Journal* 38:1 (1995a): 85-112.
- Gulati, R. “Social Structure and Alliance Formation Patterns: A Longitudinal Analysis.” *Administrative Science Quarterly* 40:4 (1995b): 619-652.
- Gulati, R., and M. Gargiulo. “Where Do Interorganizational Networks Come From?” *American Journal of Sociology*: 104:5 (1999): 1439-1493.
- Harbord, D. “Enforcing Cooperation among Medieval Merchants: the Maghribi Traders Revisited.” *Munich Personal Repec Archive Working Paper* (2006).
- Helpman, E. *The Mystery of Economic Growth*. Cambridge, MA: Harvard University Press, 2004.
- Kandori, M. “Social Norms and Community Enforcement.” *Review of Economic Studies* 59:1 (1992): 63-80.
- Kenworthy, L., S. Macaulay and J. Rogers. “‘The More Things Change...’: Business Litigation and Governance in the American Automobile Industry.” *Law and Social Inquiry* 21:3 (1996): 631-678.
- Kessler, D., and D. Rubinfeld. “Empirical Study of the Civil Justice System.” In *Handbook of Law and Economics, Volume 1*, edited by A. M. Polinsky and S. Shavell, 343-402. Amsterdam: North-Holland, 2007.
- Kranton, R. E., and D. F. Minehart. “A Theory of Buyer-Seller Networks.” *American Economic Review* 91 (2001): 485-508.
- La Ferrara, E. “Kin Groups and Reciprocity: a Model of Credit Transactions in Ghana.” *American Economic Review* 93:5 (2003): 1730-1751.
- Larson, A. “Network Dyads in Entrepreneurial Settings: A Study of the Governance of Exchange Relationships.” *Administrative Science Quarterly* 37: 1 (1992): 76-104

- Lesnikov, M. P. *Die Handelsbücher des Hansischen Kaufmannes Veckinchusen*.
Berlin: Akademie-Verlag, 1973.
- Macaulay, S. “Non-Contractual Relations in Business: a Preliminary Study.”
American Sociological Review 28:1 (1963): 55-67.
- . “Elegant Models, Empirical Pictures, and the Complexities of Contract.” *Law
& Society Review* 11:3 (1977): 507-528.
- . “An Empirical View of Contract.” *Wisconsin Law Review* 1985:3 (1985):
465-482.
- . “The Impact of Contract Law on the Economy: Less Than Meets the Eye?”
Unpublished paper (1994).
- MacLeod, W. B. “Reputations, Relationships and Contract Enforcement.” *Journal of
Economic Literature* 45 (2007): 595-628.
- Mailath, G. J., and L. Samuelson. *Repeated Games and Reputations*. New York:
Oxford University Press, 2006.
- McMillan, J., and C. Woodruff. “Private Order under Dysfunctional Public Order.”
Michigan Law Review 98:8 (2000): 2421-2458.
- Miguel, E., P. Gertler, and D. Levine. “Does Social Capital Promote Industrialization?
Evidence from a Rapid Industrializer.” *Review of Economics and Statistics*
87:4 (2005): 754-762.
- North, D. C. *Understanding the Process of Economic Change*. Princeton: Princeton
University Press, 2005.
- O’Driscoll, G. P., and L. Hoskins. “The Case for Market-Based Regulation.” *The
Cato Journal* 26:3 (2006): 469-487.
- Osborne, M. J., and A. Rubinstein. *A Course in Game Theory*. Cambridge, MA /
London: MIT Press, 1994.

- Reyerson, K. L. "Commerce and Communications." In *The New Cambridge Medieval History, vol. V: c. 1198 – c. 1300*, edited by D. Abulafia. Cambridge: Cambridge University Press, 50-70.
- Schweichel, R. "Kaufmännische Kontakte und Warenaustausch zwischen Köln und Brügge. Die Handelsgesellschaft von Hildebrand Veckinchusen, Werner Scherer und Reinhard Noiltgin." In "... *in guete freuntlichen nachbarlichen verwantnus und hantierung ...*" : *Wanderung von Personen, Verbreitung von Ideen, Austausch von Waren in den niederländischen und deutschen Küstenregionen vom 13. - 18. Jahrhundert*, edited by D. E. H. de Boer, G. Gleba and R. Holbach, 341-361. Oldenburg: Bibliotheks- und Informationssystem der Universität, 2001.
- Simonsohn, S. *The Jews in Sicily, Volume I: 383-1300*. Leiden: Brill, 1997.
- Sobel, J. "For Better or Forever: Formal versus Informal Enforcement." *Journal of Labor Economics* 24:2 (2006): 271-297.
- Stillman, N. A. "East-West Relations in the Islamic Mediterranean in the Early Eleventh Century: a Study in the Geniza Correspondence of the House of Ibn 'Awkal." Ph. D. dissertation, University of Pennsylvania, 1970.
- . "The Eleventh Century Merchant House of Ibn 'Awkal (a Geniza Study)." *Journal of the economic and social history of the Orient* 16:1 (1973): 15-88.
- . "A Case of Labor Problems in Medieval Egypt." *International Journal of Middle East Studies* 5:2 (1974): 194-201.
- Toch, M. "Netzwerke im jüdischen Handel des Früh- und Hochmittelalters?" Paper presented to the conference "Networks in medieval European trade", Reichenau, Germany, 11 to 14 May 2008.
- Trivellato, F. "Merchants on Trial: Legal and Extra-Legal Sources of Cooperation

within the Jewish Trading Diaspora in the Eighteenth Century.” Paper Presented to the XIV International Economic History Congress, Helsinki, Finland, 21 to 25 August 2006.

- Udovitch, A. L. “At the Origins of the Western Commenda: Islam, Israel, Byzantium?” *Speculum* 37:2. (1962): 198-207.
- . *Partnership and Profit in Medieval Islam*. Princeton: Princeton University Press, 1970.
- . “Formalism and Informalism in the Social and Economic Institutions of the Medieval Islamic World.” In *Individualism and Conformity in Classical Islam*, edited by Amin Banani and Speros Vryonis, 61-81. Wiesbaden: Otto Harbassowitz, 1977.
- Uzzi, B. “Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness” *Administrative Science Quarterly* 42:1, (1997): 35-67.
- Uzzi, B. “Embeddedness in the Making of Financial Capital: How Social Relations and Networks Benefit Firms Seeking Financing.” *American Sociological Review* 64:4 (1999): 481-505.
- World Bank. *World Development Report 2002: Building Institutions for Markets*. Oxford: Oxford University Press, 2002.