## Chapter 6

Who should own Barry Bonds's 73<sup>rd</sup> home run ball? Recovery of lost property
Fair use

Who should own Barry Bonds's 73<sup>rd</sup> home run ball?

When Barry Bonds hit his 73<sup>rd</sup> home run, there was a mad scramble for the ball in the stands. Apparently, one fan was in the process of catching the ball in his glove when he was knocked to the ground by other fans. Another man who was also thrown to the ground saw the loose ball and picked it up. The question is, which man is entitled to the ball? The case went to trial, and the judge ruled that both men had an equal claim to the ball, so he ordered that it be sold and the proceeds divided evenly.

How would an economist analyze this case? The situation is similar to a common property resource where the problem is how to establish ownership at the lowest cost. In this case, the cost involves potential injuries in the free-for-all among the fans as they fight over the ball. This logic supports the award of at least partial ownership to the first fan, who apparently was in the best position to catch the ball had the scramble not occurred. It also suggests that if the person who ultimately got the ball was one of those who had pushed the first man, then he should not have gotten a claim. Such a rule reduces the benefits to fans from engaging in such violent actions. The fact that the final possessor had not engaged in the jostling but was simply in the right place at the right time, however, justifies giving him a partial claim as well (i.e., there is no harm in giving him a share).

See Donald Wittman (2006) *Economic Foundations of Law and Organization*, Cambridge Univ. Press, pp. 63-66.

## Recovery of Lost property

The problem of lost property involves, first, the incentives of original owners to prevent a loss, and second, the incentive of owners or others to recover the property. A simple model illustrates the principles, which can then be compared to the law. Let

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V = value of the property;
q(y) = probability of loss;
y = owner's investment in prevention of a loss, where q is decreasing in y;
p(x) = probability of recovery in event of loss;
x = investment in recovery (whether by the owner or someone else), where p is increasing in x.
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First, suppose the property is lost. The social problem is to choose *x* to maximize the net expected value of the property:

$$p(x)V - x. (1)$$

Let  $x^*$  be the optimal investment in recovery. Now consider the optimal avoidance of loss, assuming that  $x=x^*$ . The problem for the owner is to maximize the expected value of the property:

$$(1-q(y))V + q(y)[p(x^*)V - x^*] - y. (2)$$

Let  $y^*$  be the solution to this problem.

Now consider two legal rules: (a) the recovered property is restored to the original owner (the original owner rule); and (b) the finder, if someone other than the owner, gets to keep the recovered property (the finders-keepers rule).

- a. *Original owner rule*. In this case, the owner will invest in both optimal loss prevention and optimal recovery. This is true because the owner will fully internalize both the benefit and cost of a loss or recovery. Thus, the owner's problem will coincide with the social problem. Also note that no one other than the owner will ever have an incentive to search for the property because they will have no claim to ownership. This will be undesirable if someone other than the owner is a superior finder of lost property.
- b. *Finders-keepers rule*. Now suppose that someone other than the owner can find the lost property and is allowed to keep it. If there is a single possible finder, then he will invest optimally because he will choose *x* to maximize (1). However, if more than one person can find it (including the owner), then there will generally be too much effort invested since only one person, the finder, can keep the property. (The situation resembles the tragedy of the commons under a rule of first possession.) Further, the owner will tend to overinvest in loss avoidance since, in the event of a loss, he is unlikely to be the one to recover ownership. In

the extreme case where someone other than the owner is certain to find the lost property, the owner will choose *y* to maximize

$$(1-q(y))V - y. (3)$$

Comparing this to (2), we see that the owner will invest in greater loss prevention than is socially optimal. The reason is that the marginal benefit of avoiding a loss in this case is greater than when the owner has a chance of recovery.

For further discussion of this issue, see Steven Shavell (2004) *Foundations of Economic Analysis of Law*, Belknap Press, pp. 38-45. For an application to recovery of abandoned shipwrecks, see Paul Hallwood and Thomas J. Miceli (2006) "Murky Waters: The Law and Economics of Salvaging Historic Shipwrecks," *Journal of Legal Studies*, 35: 285-302.

Copyright protection gives authors, artists, and composers an incentive to create original works by giving them an exclusive right to make copies. The doctrine of fair use serves as a limit on this exclusive right by allowing unauthorized copying for limited purposes like criticism, scholarship, news reporting, and education. As noted in the text, the economic rationale for fair use is that copyright holders would consent to such uses if bargaining were possible. In this sense, the allowed uses pass a "market test" for efficiency and should be permitted, subject to the constraint that they do not substantially impair the copyright holder's incentive to create the work in the first place.

The law of fair use is based on the Copyright Act (17 U.S.C., Section 107), which specified the factors that determine fair use: (a) the purpose and character of the use, including whether such use is of commercial nature or is for nonprofit educational purposes; (b) the nature of the copyrighted work; (c) the amount and substantiality of the material used in relation to the copyrighted work as a whole; and (d) the effect of the use on a copyright owner's potential market for and value of his work. It remains for courts to apply these factors to specific cases alleging copyright infringement.

The first important infringement case to apply these factors was Williams & Wilkins Co. v. United States (487 F.2d 1345, 1973), which was a claim by a publisher of medical journals that the unauthorized photocopying and dissemination of journal articles by government libraries was an infringement of its copyright. The court found for the defendant, ruling that the use was fair. In reaching this result, the court emphasized the value of the copies in promoting scientific advancement rather than for commercial use, and the limited number of copies made. Further, it noted that the plaintiffs offered little evidence of adverse financial effects. These conclusions suggest that the use in question was welfare-enhancing, while causing no harm to copyright holders.

A decade later, the Supreme Court re-examined the fair use standard in *Sony Corp. v. Universal City Studios* (104 S.Ct. 774, 1984), which alleged "contributory infringement" by the manufacturer of home video equipment that permitted unauthorized recording of copyrighted television programs. In ruling for Sony, the Court held that the use in question was fair because it provided a clear benefit to consumers (the ability to "time-shift" programs), was non-commercial in nature, and imposed little if any harm on copyright holders.

Williams & Wilkins, and to a lesser extent Sony, involved technologies where most uses were judged to be fair in the sense of enhancing welfare without substantially harming the copyright holder's interests. This was not the case, however, in the recent case of A&M Records, Inc. v. Napster, Inc. (114 F.Supp. 2d 896, 2000), which concerned an internet service that allowed consumers to download and share copyrighted music free of charge. In finding against fair use in this case, the court noted that the copies were identical to the originals, and, in contrast to the previous cases, were primarily for commercial rather than private use. Further, it found that the copying adversely affected the economic interests of plaintiffs in at least two ways: by directly reducing the demand

for their products, and by creating a barrier to entry into the market for digital downloading of music. The court therefore found the use to be an infringement of the plaintiffs' copyright.

The progression from *Williams & Wilkins* to *Napster* shows how technological change continually challenges the courts to re-define the optimal fair use standard. In the early cases, technology was the limiting factor, permitting only uses that were beneficial while imposing little harm on copyright holders. Efficiency clearly dictated that such uses be judged fair. However, continued improvements in technology have increased the threat to the value of the copyright—and hence the incentive to create original works—ultimately forcing the court to set a limit on fair use.

See Thomas J. Miceli and Richard P. Adelstein (2006) "An Economic Model of Fair Use," *Information Economics and Policy* 18: 359-373.