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Chain of Custody

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Authentication or identification of real evidence refers to the requirement of proving that an item of evidence is genuine, *i.e.*, that it is what its proponent claims it to be. McCormick expressed the requirement in this way: "[W]hen real evidence is offered an adequate foundation for admission will require testimony first that the object offered is *the* object which was involved in the incident, and further that the condition of the object is substantially unchanged." 2 C. McCormick, Evidence 8 (4th ed. 1992)

EVIDENCE RULE 901

Federal Evidence Rule 901(a) codifies this requirement: "The requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims." The Ohio rule is identical.

Identity of Evidence

It is often necessary to show that the item seized at a crime scene or place of arrest, such as drugs, was the same item analyzed at the crime laboratory and introduced at trial. There are two principal methods of proving the identity of real evidence: first, establishing that the evidence is "readily identifiable," and second, establishing a "chain of custody."

Both methods are discussed later in this article.

Condition of Evidence

In addition to showing that the object introduced in evidence is the same object as the one involved in the crime, the proponent of the evidence must show that the object has retained its relevant evidentiary characteristics. Alteration of the item may reduce or negate its probative value and may mislead the jury. Thus, before physical objects are admissible in evidence the proponent must establish that they are in "substantially the same condition as when the crime was committed." Gallego v. United States, 276 F.2d 914, 917 (9th Cir. 1960). *Accord* United States v. Harrington, 923 F.2d 1371, 1374 (9th Cir.), cert. denied, 112 S. Ct. 164 (1991); United States v. Zink, 612 F.2d 511, 514 (10th Cir. 1980) ("condition is materially unchanged").

Determining what changes are "substantial" depends on how the changes affect the relevance of the evidence. Radically altered items of evidence may still be admitted if their pertinent features remain unaltered:

> Even though the object is not in exactly the same condition at trial as at the time in issue — or even if in substantially the same condition — the exhibit may still be admitted if the changes can be explained, and they do not destroy the evidentiary value of the object. Comment, "Preconditions for Admission of Demonstrative Evidence," 61 Nw. U.L. Rev. 472, 484 (1966).

McCormick said it this way: "It should, however, always be borne in mind that foundational requirements are essentially requirements of logic, and not rules of art. Thus, e.g., even a radically altered item of real evidence may be admissible if its pertinent features remain unaltered." 2 C. McCormick, *supra* at 8-9.

For example, in United States v. Skelley, 501 F.2d 447 (7th Cir.), cert. denied, 419 U.S. 1051 (1974), counterfeit bills were admissible even though they apparently changed color due to tests for fingerprints. According to the court, the change in color did not "destroy the relevance of the bills to show their counterfeit character from the identity of serial numbers, and their competence as evidence for this purpose [was] unimpaired by the . . . possibility of a change in color." *Id.* at 451.

See also Davidson v. State, 208 Ga. 834, 836, 69 S.E.2d 757, 759 (1952) (victim's clothing admissible although washed); Bruce v. State, 268 Ind. 180, 238, 375 N.E.2d 1042, 1073 (1978) (contamination "in no way vitiated the evidentiary value of the exhibits"), cert. denied, 439 U.S. 988 (1978).

READILY IDENTIFIABLE EVIDENCE

If an object is easily identified, there may be no need to establish a chain of custody. McCormick refers to such items as "unique and readily identifiable." 2 C. McCormick, *supra* at 8. As one Ohio court has noted:

> If an exhibit is directly identified by a witness as the object which is involved in the case, then that direct identification is sufficient. Such is the case with

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many objects which have special identifying characteristics, such as a number or mark, or are made to have such identifying characteristics by special marks. State v. Conley, 32 Ohio App. 2d 54, 59, 288 N.E.2d 296, 300 (1971).

See also United States v. LePera, 443 F.2d 810, 813 (9th Cir.) ("Counterfeit notes . . . printed from a single plate, are unique and identifiable without proof of a chain of custody"), cert. denied, 404 U.S. 958 (1971); United States v. Blue, 440 F.2d 300, 303 (7th Cir.) ("The chain of custody is not relevant when a witness identifies the object as the actual object about which he has testified"), cert. denied, 404 U.S. 836 (1971); State v. Malone, 694 S.W.2d 723, 727 (Mo. 1985) (chain of custody not required if there is a positive identification), cert. denied, 476 U.S. 1165 (1986).

The Federal Rules recognize this method of identification. Rule 901(b)(4), entitled "Distinctive characteristics and the like," provides that "[a]ppearance, contents, substance, internal patterns, or other distinctive characteristics, taken in conjunction with circumstances" may satisfy the authentication requirement. The Ohio rule is identical.

Numerous examples of authenticating readily identifiable objects are found in the cases. All of these examples involve objects whose characteristics somehow make them unique.

Serially Numbered Items

First, any item imprinted with a serial number, such as a weapon or dollar bill, may be identified by that number. *E.g.,* Calderon v. United States, 269 F.2d 416, 419 (10th Cir. 1959) (money); Jackson v. State, 241 Ark. 850, 854, 410 S.W.2d 766, 769 (1967) (gun); State v. Conley, 32 Ohio App. 2d 54, 60, 288 N.E.2d 296, 300-01 (1971) (money); State v. Kroeplin, 266 N.W.2d 537, 540 (N.D. 1978) (gun).

Police Markings

Second, an object that is inscribed with the initials or markings of a police officer or other person may be readily identifiable. In such cases, the person converts a non-unique object into a readily identifiable one by placing distinctive markings on it. This practice is recommended in crime scene and evidence collection manuals. *See* Federal Bureau of Investigation, Handbook of Forensic Science 100 (rev. ed. 1984); C. O'Hara, Fundamentals of Criminal Investigation 79-84 (5th ed. 1980).

This method of identification is also well accepted in the cases. Numerous items have been admitted under this method:

Firearms: United States v. Madril, 445 F.2d 827, 828 (9th Cir. 1971) (pistol), vacated on other grounds, 404 U.S. 1010 (1972); Dixon v. State, 243 Ind. 654, 656-57, 189 N.E.2d 715, 716 (1963) (shotgun).

Bullets: Sims v. State, 243 Ga. 83, 85, 252 S.E.2d 501, 503 (1979); State v. Ross, 275 N.C. 550, 553-54, 169 S.E.2d 875, 878 (1969), cert. denied, 397 U.S. 1050 (1970). *See also* Almodovar v. State, 464 N.E.2d 906, 911 (Ind. 1984) (initials scratched on shell casing).

Currency: United States v. Capocci, 433 F.2d 155, 157 (1st Cir. 1970) (counterfeit bill); United States v. Bourassa, 411 F.2d 69, 72-73 (10th Cir.) (coin), cert. denied, 396 U.S. 915 (1969); Rosemund v. United States, 386 F.2d 412, 412 (10th Cir. 1967) (stolen money).

Laboratory slides: Gass v. United States, 416 F.2d 767, 770 (D.C. Cir. 1969); Wheeler v. United States, 211 F.2d 19, 22-23 (D.C. Cir. 1953), cert. denied, 347 U.S. 1019 (1954); State v. Romo, 66 Ariz. 174, 178-80, 185 P.2d 757, 759-61 (1947).

Distinctive Items

Third, an object may possess distinctive natural characteristics which may make it readily identifiable. *E.g.,* United States v. Reed, 392 F.2d 865, 867 (7th Cir.) ("very unusual looking hat"), cert. denied, 393 U.S. 984 (1968); Reyes v. United States, 383 F.2d 734, 734 (9th Cir. 1967) (holdup note "was unique and readily identifiable").

For example, in United States v. Briddle, 443 F.2d 443 (8th Cir.), cert. denied, 404 U.S. 942 (1971), the prosecution introduced evidence that a button top found at the scene of a burglary came from the defendant's coat. The police officer described the button as follows:

> It had a picture of a whale on the front of it. It was leather . . . And it had a sticky substance on the back, as though it might have been stuck to something . . . It was a dark brown in color. Had a whale or fish on it. The tail was up in the air. Split. And I believe it was the left eye of the animal that was up. *Id.* at 448.

The Eighth Circuit held this identification sufficient: "Given the uniqueness of the buttons on Briddle's coat, we think this identification evidence established that the exhibit . . . was the button top found at the scene of the burglary." *Id.* at 449.

Thus, the issue is whether the distinctive characteristics are sufficient to make it unlikely that another object would have the same characteristics.

Witness' Uncertainty

A witness' uncertainty in identifying an exhibit, however, affects the weight, not the admissibility, of the evidence. For example, the Ninth Circuit has written:

> [A]lthough the trial record reveals the identification of the ax made by Papse may not have been entirely free from doubt, the witness did state that he was "pretty sure" this was the weapon Johnson had used against him, that he saw the ax in Johnson's hand, and that he was personally familiar with this particular ax because he had used it in the past. Based on Papse's testimony, a reasonable juror could have found that his ax was the weapon allegedly used in the assault. Papse's ability or inability to specify particular identifying features of the ax, as well as the evidence of the ax's alleged changed condition, should then go to the question of weight to be accorded this evidence, which is precisely what the trial court ruled. In other words, although the jury remained free to reject the government's assertion that this ax had been used in the assault, the requirements for admissibility specified in Rule 901(a) had been met. United States v. Johnson, 637 F.2d 1224, 1247-48 (9th Cir. 1980).

Accord Howland v. State, 51 Wis. 2d 162, 171, 186 N.W.2d 319, 323 (1971) ("[T]he witness' lack of certitude as to whether the objects offered are the ones he saw on a prior occasion goes to the weight the jury should give to the evidence, but lack of certitude does not preclude admissibility").

CHAIN OF CUSTODY

The use of a chain of custody to authenticate evidence is well established in criminal trials. Nevertheless, two commentators have written that the governing federal rule "can easily be read as doing away with any chain of custody requirement." 2 S. Saltzburg & M. Martin, Federal Rules of Evidence Manual 478 (5th ed. 1990) (citing Fed. R. Evid. 901(a)). This seems doubtful. If anything, there is a need for more stringent requirements. The mass processing of immunoassay tests and the increasing volume of DNA testing heightens the importance of proper handling procedures. Indeed, improper labeling was the cause of an error in a DNA proficiency test. Thompson, "The Myth of DNA Fingerprints," 9 Cal. Law. 34 (Apr. 1989) (Cellmark official admitted that the "error occurred because a lab technician incorrectly labeled a vial").

In some situations the proponent must establish a chain of custody. Proof of the chain of custody may be necessary either because the item of evidence is not readily identifiable, or because more than simple identification is necessary to establish the item's relevance.

Fungible Objects

First, a chain of custody is often required for fungible evidence because these items have no unique characteristics. The inability to distinguish between fungible items makes positive identification by observation alone impossible. *See* State v. Conley, 32 Ohio App. 2d 54, 59, 288 N.E.2d 296, 300 (1971) ("One white pill looks much like any other white pill and hence positive identification simply by observation is usually impossible").

In addition, the nature of these items frequently makes them particularly susceptible to tampering or loss. As one court has noted, the "danger of tampering, loss, or mistake with respect to an exhibit is greatest where the exhibit is small and is one which has physical characteristics fungible in nature and similar in form to substances familiar to people in their daily lives." Graham v. State, 253 Ind. 525, 531, 255 N.E.2d 652, 655 (1970). *See also* United States v. LePera, 443 F.2d 810, 812-13 (9th Cir.), cert. denied, 404 U.S. 958 (1971) ("Narcotic drugs are fungible and, being such, evidence of a continuous chain of possession is often necessary. . .").

Nevertheless, the proper handling of fungible evidence — using lock-sealed envelopes that "can be opened only by destroying the seals" — makes the evidence readily identifiable and eliminates most problems of misidentification and contamination. United States v. Santiago, 534 F.2d 768, 770 (7th Cir. 1976).

Laboratory Analysis

Second, if the relevance of an exhibit depends on its subsequent laboratory analysis, identification by police markings made at the scene does not provide a sufficient foundation. The markings establish that the exhibit in court was the item seized by the police, but a chain of custody may be necessary to establish that the item seized was the item analyzed at the crime laboratory.

For example, in Robinson v. Commonwealth, 212 Va. 136, 183 S.E.2d 179 (1971), the court reversed a rape conviction due to a break in the chain of custody: "The mere fact that the blouse and the panties were identified [by the victim at trial] did not prove the chain of possession necessary to validate the F.B.I. analysis of them." *Id. at 139, 183 S.E.2d at 181. See also* Graham v. State, 253 Ind. 525, 532-34, 255 N.E.2d 652, 655-56 (1970) (wrapper containing white powder initialed at time police took possession but break in chain of custody prior to chemical analysis resulted in reversal).

Condition of Object

Third, if the condition of the object, not merely its identity, is the relevant issue, a chain of custody may be required to establish that the object has not been altered during police custody. This requirement is a necessary safeguard for evidence that is susceptible to undetected contamination or deterioration, such as blood samples. *See* Lynch v. State, 687 S.W.2d 76, 78 (Tex. App. 1985) (chain of custody required for blood in a criminal case); Ritter v. State, 3 Tenn. Crim. App. 372, 462 S.W.2d 247, 249 (1970) ("Blood specimens. . . should be handled with the greatest of care and all persons who handle the specimen should be ready to identify it and testify to its custody and unchanged condition").

See also Glendening & Waugh, "The Stability of Ordinary Blood Alcohol Samples Held Various Periods of Time Under Different Conditions," 10 J. Forensic Sci. 192, 199 (1965) (showing instability of alcohol content in blood samples for different temperatures and storage periods).

LENGTH OF CHAIN OF CUSTODY

When a chain of custody is required, either to show the identity of the item or its unchanged condition, it is necessary to determine where the chain begins and ends. Only breaks in possession that occur within the period included in the chain of custody affect admissibility.

The Initial Link

Disputes over the initial link in the chain of custody focus on whether the continuous possession requirement should apply at the time of the incident at issue or at the time when the evidence comes into possession of its proponent. According to one position, a "chain-of-custody foundation is not required . . . for periods before the evidence comes into the possession of law enforcement personnel." Williams v. State, 269 Ind. 265, 269-70, 379 N.E.2d 981, 984 (1978). The theory underlying this rule is that "the State cannot be charged with the responsibility of accounting for the custody of the exhibit" when it is not in its possession. Zupp v. State, 258 Ind. 625, 629, 283 N.E.2d 540, 543 (1972).

This rule has been applied in two different types of cases: first, those in which a third party had possession of the object prior to the time it was turned over to the police, Zupp v. State, 258 Ind. 625, 629-30, 283 N.E.2d 540, 543 (1972), and second, those in which the object was not discovered at the crime scene until sometime after the commission of the crime. Williams v. State, 269 Ind. 265, 269-70, 379 N.E.2d 981, 984 (1978) (three-hour delay in discovery of revolver); Thornton v. State, 268 Ind. 456, 459-60, 376 N.E.2d 492, 494 (1978) (knife discovered in open field subsequent to arrest).

This position misconceives the purpose of the chain of custody rule. The rule is not designed to hold the police accountable, but rather to ensure that evidence is relevant.

Police accountability is a means to this end. If the relevance of an object depends on its use in a crime, the offering party must establish, through a chain of custody or otherwise, a connection between that object and the crime. For example, if a third party finds a rifle near a crime scene and turns it over to the police several hours or days after the crime, it would be necessary to "account" for the rifle during the time it was in the third party's possession in order to tie the rifle to the place where the crime occurred.

For example, in United States v. White, 569 F.2d 263 (5th Cir.), cert. denied, 439 U.S. 848 (1978), the court noted: "This is not a routine chain of custody situation in which the chain is broken between seizure of the evidence from the accused and a subsequent trial. Rather, the alleged break occurred before the government came into possession of the heroin." *Id.* at 266. After citing the rule in the "typical chain of custody cases," the court wrote: "We apply the same rule in the instant case." *Id.*

See also United States v. Cyphers, 553 F.2d 1064, 1073 (7th Cir.), cert. denied, 434 U.S. 843 (1977) (2 to 3-hour gap before evidence seized); People v. Brown, 115 A.D.2d 610, 610, 496 N.Y.S.2d 272, 272 (1985) (piece of rug recovered five days after crime held inadmissible).

The Final Link

Disagreement over the point at which the chain of custody ends focuses on whether the chain ends when the item is introduced at trial or at an earlier stage, *e.g.*, when a laboratory analyzes the item. Some commentators have read several cases as requiring the prosecution to trace the chain of custody from the time of seizure until the time of trial in all cases. *See* Annot., 21 A.L.R.2d 1216, 1236 (1952). There may be some support for this view in the Advisory Committee's Note to Federal Rule 901, where the drafters refer to "establishing narcotics as taken from an accused and accounting for custody through the period until trial, including laboratory analysis."

The "length" of the chain of custody, however, depends on the purpose for which the evidence is offered. This point is illustrated by State v. Conley, Ohio App. 2d 54, 288 N.E.2d 296 (1971), which involved a prosecution for the illegal sale of LSD. The drugs were purchased with marked bills whose serial numbers had been recorded. The defendant objected to both the admissibility of the bills and the LSD. The court wrote:

> To identify a particular item . . . as being part of a pertinent incident in the past usually requires the showing of a continuous chain of custodians up to the material moment. When a chemical analysis is involved . . . the material moment is the moment of analysis, since this provides the basis for the expert testimony and makes that testimony relevant to the case. In the case of many other items, the material moment occurs at the trial. *Id.* at 59-60, 288 N.E.2d at 300.

The court went on to hold that the chain of custody for the marked bills ran from the time the bills were marked until the trial, at which time they were identified. The chain of custody for the drugs differed; it ran from the time of seizure to the time of chemical analysis.

As a matter of relevancy, this approach is sound. The loss or destruction of the drugs *after* chemical analysis would not affect the relevance of the expert's testimony concerning the nature of the drugs. *See* United States v. Bailey, 277 F.2d 560, 565 (7th Cir. 1960) ("Even if the exhibits, including the heroin, had not been introduced in evidence the testimony of the witnesses and the stipulation as to the chemical analysis were sufficient . . .").

Moreover, the prosecution generally is not required to introduce real evidence in order to prove its case:

> It is not always necessary that tangible evidence be physically admitted at a trial . . . Even when evidence is available it need not be physically offered. Thus, the grand larceny of an automobile may be established merely on competent testimony describing the stolen vehicle without actually producing the automobile before the trier of fact. Holle v. State, 26 Md. App. 267, 274, 337 A.2d 163, 166-67 (1975) (stolen marked currency).

Accord United States v. Figueroa, 618 F.2d 934, 941 (2d Cir. 1980) (heroin); Chandler v. United States, 318 F.2d 356, 357 (10th Cir. 1963) (whiskey bottles). Finally, the so-called "best evidence" rule applies only to writings, recordings, and photographs, not to real evidence. *See* Fed. R. Evid. 1002.

Other Problems

Nevertheless, the Florida Supreme Court has adopted a contrary position. According to the court, "when a defendant is charged with possession of a controlled substance, that substance, if available, must be introduced into evidence." G.E.G. v. State, 417 So. 2d 975, 977 (Fla. 1982). In support of this rule, the court wrote:

> An absolute rule that a substance may be introduced or not at the discretion of the prosecutor is practically undesirable because of its potential for abuse. For example, such prosecutorial discretion could deliberately or unwittingly be used to confuse defense counsel and thwart the ability to make certain objections, particularly objections to chain of custody . . .
>
> The state's failure to introduce the substance in evidence against the defendant might put the defendant in the awkward position of introducing it himself should he wish to challenge its authenticity where there has been testimony of its existence as here . . . *Id.* at 977-78.

In addition, the loss or destruction of the evidence after laboratory analysis may affect the defendant's right to reexamine the evidence, which could result in the exclusion of expert testimony based on the prior laboratory examination. *See* 1 Giannelli & Imwinkelried, Scientific Evidence § 3-7 (2d ed. 1993) (constitutional duty to preserve evidence).

LINKS IN THE CHAIN

The "links" in the chain of custody are those persons who have had *physical* custody of the object. Persons who have had access to, but not possession of, the evidence generally need not be accounted for. Such persons are not custodians. As noted by one court: "There is no rule requiring the prosecution to produce as witnesses all persons who were in a position to come into contact with the article sought to be introduced in evidence." Gallego v. United States, 276 F.2d 914, 917 (9th Cir. 1960).

Accord United States v. Fletcher, 487 F.2d 22, 23 (5th

Cir. 1973) (fact that "fifteen persons had access to the evidence room" affects weight, not admissibility), cert. denied, 416 U.S. 958 (1974); Reyes v. United States, 383 F.2d 734, 734 (9th Cir. 1967) ("[T]he Government was under no obligation to produce as witnesses all persons who may have handled exhibit 1").

Breaks

Failure to account for the evidence during possession by a custodian, however, may constitute a critical break in the chain of custody — for example:

United States v. Panczko, 353 F.2d 676, 679 (7th Cir. 1965) ("There is no evidence as to where or from whom Lieutenant Remkus got the keys"), cert. denied, 383 U.S. 935 (1966);

Novak v. District of Columbia, 160 F.2d 588, 589 (D.C. Cir. 1947) (evidence failed "to identify the sample from which the analyses were made as being that sample taken from the appellant");

Smith v. United States, 157 F.2d 705 (D.C. Cir. 1946) (witness testified that watch presented in court had been handed to him by police officer at scene but he did not see where officer obtained watch);

United States v. Lewis, 19 M.J. 869 (A.F.C.M.R. 1985) (prosecution failed to show that urine sample analyzed at lab was the sample taken from the defendant).

Testimony of Links

Some courts have indicated that all the links in the chain of custody must testify at trial. *E.g.,* People v. Connelly, 35 N.Y.2d 171, 174, 316 N.E.2d 706, 708, 359 N.Y.S.2d 266, 269 (1974) ("[A]dmissibility generally requires that all those who have handled the item 'identify it and testify to its custody and unchanged condition' "). The prevalent view, however, is that "the fact of a 'missing link does not prevent the admission of real evidence, so long as there is sufficient proof that the evidence is what it purports to be.' " United States v. Howard-Arias, 679 F.2d 363, 366 (4th Cir.), cert. denied, 459 U.S. 874 (1982).

See also United States v. Harrington, 923 F.2d 1371, 1374 (9th Cir.) ("[T]he prosecution was not required to call the custodian of the evidence"), cert. denied, 112 S. Ct. 164 (1991); United States v. Cardenas, 864 F.2d 1528, 1532 (10th Cir.) ("There is no rule that the prosecution must produce all persons who had custody of the evidence to testify at trial"), cert. denied, 491 U.S. 909 (1989); People v. Jones, 148 Ill. App. 3d 345, 499 N.E.2d 510, 514 (1986) ("A sufficient chain of custody does not require every person involved in the chain to testify").

Thus, while a custodian in the chain of possession need not testify under all circumstances, the evidence should be accounted for during the time it was under that custodian's control. Several recurrent examples of "missing link" cases are discussed below.

Informants

The authentication of evidence by means other than the testimony of custodial links frequently arises in drug cases where an informant who had handled the drugs does not testify at trial. In this situation, an undercover officer who had accompanied the informant can testify about the informant's handling of the drugs. Thus, a noncustodian with first-hand knowledge may supply evidence of the object's handling while in the custody of the nontestifying informant. *E.g.,* United States v. Jones, 404 F. Supp. 529, 542 (E.D. Pa. 1975) (undercover agent observed defendant giving drugs to informant; informant did not testify), aff'd, 538 F.2d 321 (3d Cir. 1976).

The testimony of a custodial link also may be dispensed with when circumstantial evidence sufficiently connects a defendant with drugs purchased from him by an informant, *i.e.* a "controlled drug buy." For example, in Peden v. United States, 223 F.2d 319 (D.C. Cir. 1955), cert. denied, 359 U.S. 971 (1959), an informant was searched prior to a drug transaction and provided with marked money. While under surveillance, she met the defendant, and both were immediately arrested and searched. The informant had morphine and the defendant had the marked money. Although the informant did not testify, the court held the chain sufficient to connect the defendant with the morphine. *Id. See also* United States v. Amaro, 422 F.2d 1078, 1080 (9th Cir. 1970).

Postal Employees

Postal employees who handle evidence sent to a crime laboratory by mail are custodial links. Postal employees rarely, if ever, testify at trial, however. A rule requiring every custodian to testify would necessitate calling all postal employees who handled the evidence. This would "place an impossible burden upon the state." Trantham v. State, 508 P.2d 1104, 1107 (Okla. Crim. App. 1973).

Therefore, courts invoke the presumption that "articles transported by regular United States mail and delivered in the ordinary course of the mails are delivered in substantially the same condition in which they were sent." Schacht v. State, 154 Neb. 858, 861, 50 N.W.2d 78, 78 (1951). *See also* Pasadena Research Laboratories, Inc. v. United States, 169 F.2d 375, 382 (9th Cir.) (presumption of regularity applies to postal employees' handling of vials during shipment), cert. denied, 335 U.S. 853 (1948); Rogers v. Commonwealth, 197 Va. 527, 531, 90 S.E.2d 257, 259-60 (1955) ("In proving identity legal presumptions may of course be relied upon unless rebutted, e.g., that articles regularly mailed are delivered in substantially the same condition in which they were sent").

But see Miller v. State, 484 So. 2d 1203, 1205 (Ala. Crim. App. 1986) (no presumption of delivery where blood specimen placed in agency's "regular outgoing mail" rather than U.S. mail).

Many law enforcement agencies recommend registered mail or other similar means for sending evidence. F.B.I., *supra* at 103 ("Ship [physical evidence] by U.S. Postal Service, Registered Mail, United Parcel Service, Federal Express, or air freight"). *See also* United States v. Godoy, 528 F.2d 281, 283 (9th Cir. 1975) (narcotics sent by registered mail to laboratory); United States v. Jackson, 482 F.2d 1266 (8th Cir. 1973) (registered, special delivery, air mail).

Furthermore, the FBI recommends stringent packaging requirements for items mailed to its laboratory. F.B.I., *supra* at 103 (use suitable containers, package each item separately, and seal securely). Proof that these procedures were followed, and not the presumption of due

delivery, assures the reliability of the evidence.

Minor Links

Another category of cases involves what may be called "minor links" — intermediate custodians who had possession for a short period of time and merely passed the evidence along to another link. For example, in one case a chief chemist, who had received a sealed envelope of heroin and then turned it over to the examining chemist, did not testify. The court upheld the admissibility of the evidence because the seal was "unbroken when the latter received it." United States v. Picard, 464 F.2d 215, 216 n.1 (1st Cir. 1972). *Accord* United States v. Williams, 809 F.2d 75, 89-90 (1st Cir. 1986) (lab technician need not testify), cert. denied, 482 U.S. 906 (1987); United States v. Glaze, 643 F.2d 549, 552 (8th Cir. 1981) (nontestifying chemist received and transported narcotics to testifying chemist).

The category of minor links whose testimony is not required to establish a chain of custody includes not only laboratory personnel, but also police officers who receive evidence from a seizing officer and mail or transported it to a laboratory for analysis. *E.g.,* United States v. Jones, 404 F. Supp. 529, 543 (E.D. Pa. 1975) (testimony of officer who mailed heroin to lab not necessary where sealed packages initialed and return receipt introduced), aff'd, 538 F.2d 321 (3d Cir. 1976); United States v. Lampson, 627 F.2d 62, 65 (7th Cir. 1980) (deputy sheriff who transported evidence did not testify); Bay v. State, 489 N.E.2d 1220, 1223 (Ind. App. 1986) (detective who transported marijuana to lab did not testify).

See also State v. Goad, 692 S.W.2d 32, 36 (Tenn. Crim. App. 1985) (property room custodian need not testify); United States v. Cardenas, 864 F.2d 1528, 1532 (10th Cir.) (officer who carried cocaine to evidence room did not testify), cert. denied, 491 U.S. 909 (1989).

In short, "accounting for" all the links in the chain of custody does not necessarily mean all the links need testify at trial.

BURDEN AND STANDARD OF PROOF

The burden of proving the chain of custody rests with the party offering the evidence. United States v. Santiago, 534 F.2d 768, 770 (7th Cir. 1976); 1 J. Wigmore, Evidence § 18, at 841 (Tillers rev. 1983).

Prior to the adoption of the Federal Rules of Evidence, the courts described the standard of proof in various ways. The most common expression of the standard was that the offering party had to establish the identity and condition of the exhibit by a "reasonable probability." *E.g.,* United States v. Brown, 482 F.2d 1226, 1228 (8th Cir. 1973) ("reasonable probability the article has not been changed in any important respect'); United States v. Robinson, 447 F.2d 1215, 1220 (D.C. Cir. 1971), rev'd on other grounds, 414 U.S. 218 (1973).

Phrases such as "reasonable certainty" and "reasonable assurance" seem only variants of this standard. United States v. Jones, 404 F. Supp. 529, 543 (E.D. Pa. 1975); State v. Cress, 344 A.2d 57, 61 (Me. 1975); State v. Baines, 394 S.W.2d 312, 316 (Mo. 1965), cert. denied, 384 U.S. 992 (1966).

The reasonable probability standard appears to require no more than the "preponderance of evidence" or "more probable than not" standard. *See* People v. Riser, 47 Cal. 2d 566, 580-81, 305 P.2d 1, 10 ("The requirement of reasonable certainty is not met when some vital link in the chain of possession is not accounted for, because then it is as likely as not that the evidence analyzed was not the evidence originally received"), appeal dismissed, 358 U.S. 646 (1959).

Moreover, chain of custody "requirements go to the competency of the evidence, not merely to its credibility." State v. Serl, 269 N.W.2d 785, 789 (S.D. 1978). Under this view, the trial court determines whether this standard has been satisfied. "That determination is to be made by the trial judge, not the jury. . ." United States v. Brown, 482 F.2d 1226, 1228 (8th Cir. 1973). *Accord* United States v. Daughtry, 502 F.2d 1019, 1021-23 (5th Cir. 1974); United States v. Stevenson, 445 F.2d 25, 27 (7th Cir.), cert. denied, 404 U.S. 857 (1971).

Federal Rules

In contrast, Federal Rule 901(a) requires only that the offering party introduce "evidence sufficient to support a finding that the matter in question is what its proponent claims." Thus, the trial court does not decide finally or exclusively whether the item has been identified; rather, the court decides only whether sufficient evidence has been introduced from which a reasonable jury could find the evidence identified. *See* Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F. Supp. 1190, 1219 (E.D. Pa. 1980) ("The Advisory Committee Note to Rule 104(b) makes plain that preliminary questions of conditional relevancy are not determined solely by the judge, for to do so would greatly restrict the function of the jury. . . ."), rev'd on other grounds, 723 F.2d 238 (3d Cir. 1983), rev'd, 475 U.S. 574 (1986).

In other words, the offering party need only make a "prima facie" showing of authenticity to gain admissibility, and the jury decides finally whether the evidence has been sufficiently identified. *See* United States v. Goichman, 547 F.2d 778, 784 (3d Cir. 1976) ('[I]t is the jury who will ultimately determine the authenticity of the evidence, not the court").

Whether the Federal Rules of Evidence were intended to effect a major change in the chain of custody requirements is unclear. Two commentators have written that "Rule 901(a) can easily be read as doing away with any chain of custody requirement." S. Saltzburg & M. Martin, Federal Rules of Evidence Manual 478 (5th ed. 1990).

Several decisions of the Fifth Circuit contain language that supports this view. For example, the court has written that "chain of custody goes to the weight rather than the admissibility of the evidence, and is thus reserved for the jury." Ballou v. Henri Studios, Inc., 656 F.2d 1147, 1154 (5th Cir. 1981). *Accord* United States v. Shaw, 920 F.2d 1225, 1229-30 (5th Cir.) ("any break in the chain of custody of physical evidence does not render the evidence inadmissible but instead goes to the weight that the jury should accord that evidence."), cert. denied, 111 S. Ct. 2038 (1991).

The Second Circuit also appears to have adopted this less stringent standard: "Fed.R.Evid. 901 requires that to meet the admissibility threshold the government need only prove a rational basis for concluding that an exhibit

is what it is claimed to be." United States v. Hon, 904 F.2d 803, 809 (2d Cir. 1990), cert. denied, 111 S. Ct. 789 (1991).

Other federal courts of appeal, however, continue to apply the pre-Rule's "reasonable probability" standard. *E.g.,* United States v. Harrington, 923 F.2d 1371, 1374 (9th Cir.), cert. denied, 112 S. Ct. 164 (1991); United States v. Cardenas, 864 F.2d 1528, 1532 (10th Cir.), cert. denied, 491 U.S. 909 (1989); United States v. Rans, 851 F.2d 1111, 1114 (8th Cir. 1988); United States v. Roberts, 844 F.2d 537, 550 (8th Cir.), cert. denied, 488 U.S. 867 (1988).

In United States v. Ladd, 885 F.2d 954 (1st Cir. 1989), the First Circuit stated the rule as follows:

> In the last analysis, the prosecution's chain-of-custody evidence must be adequate — not infallible. Here, some links in the chain were rusty, but none were missing. Without question, the defense succeeded in showing a certain sloppiness, regrettable in a forensic laboratory. Yet the net effect of any such disarray on the authenticity of the evidence depended on what inferences a reasonable factfinder might choose to draw from it. Where, as in this case, a trier chooses among plausible (albeit competing) inferences, appellate courts should not intrude. *Id.* at 957.

Accordingly, the evidence was admissible. The same court, however, ruled that another item of evidence should have been excluded due to a "missing link" that resulted from a discrepancy between laboratory identification numbers: "In short, there was no competent proof to indicate that the sample extracted from Massey's corpse was the one which CSL tested. An important step in the custodial pavane was omitted." 885 F.2d at 957. *See also* Kennedy v. State, 578 N.E.2d 633, 639 (Ind. 1991) ('[T]he State need not establish a perfect chain of custody, and any gaps go to the weight of the evidence and not its admissibility'), cert. denied, 112 S. Ct. 1299 (1992).

Application of the Standard of Proof

To satisfy its burden of proof, the prosecution need not eliminate every possibility of substitution, alteration, or tampering. The "mere possibility of a break in the chain does not render the physical evidence inadmissible, but raises the question of weight to be accorded by the jury. . ." United States v. Jardina, 747 F.2d 945, 951 (5th Cir. 1984), cert. denied, 470 U.S. 1058 (1985). Accordingly, discrepancies are not always fatal. Numerous cases hold that minor discrepancies affect the weight and not admissibility of the evidence:

Incorrect weight: United States v. Godoy, 528 F.2d 281, 283 (9th Cir. 1975); People v. Zipprich, 141 Ill. App. 3d 123, 490 N.E.2d 8, 10-11 (1986); People v. Julian, 41 N.Y.2d 340, 342, 360 N.E.2d 1310, 1312, 392 N.Y.S.2d 610, 612 (1977).

Incorrect number: United States v. Hon, 904 F.2d 803, 810 (2d Cir. 1990), cert. denied, 111 S. Ct. 789 (1991); United States v. Clark, 425 F.2d 827, 833 (3d Cir.), cert. denied, 400 U.S. 820 (1970).

Incorrect date: United States v. Barcella, 432 F.2d 570, 572 (1st Cir. 1970); State v. Smith, 463 So. 2d 1003, 1005 (La. App. 1985).

Incorrect labeling: United States v. Allocco, 234 F.2d 955, 956 (2d Cir.), cert. denied, 352 U.S. 931 (1956); Ingle v. State, 176 Ind. App. 695, 707, 377 N.E.2d 885, 892 (1975); State v. Beaudoin, 386 A.2d 731, 733 (Me. 1978); Renner v. Commissioner of Pub. Safety, 373 N.W.2d 628, 632 (Minn. App. 1985).

In satisfying its burden of proof, the prosecution is frequently aided by the "presumption of regularity." As one court has commented:

> In the absence of any evidence to the contrary, the trial judge was entitled to assume that this official would not tamper with the sack and can or their contents. Where no evidence indicating otherwise is produced, the presumption of regularity supports the official acts of public officers, and courts presume that they have properly discharged their official duties. Gallego v. United States, 276 F.2d 914, 917 (9th Cir. 1960).

Accord United States v. Lott, 854 F.2d 244, 250 (7th Cir. 1988); United States v. Olson, 846 F.2d 1103, 1116 (7th Cir.), cert. denied, 488 U.S. 850 (1988).

The presumption of regularity, however, has been criticized by some courts:

> The presumption of regularity, if it can be dignified as a rule, does not serve as a substitute for evidence when authenticity is, as here, challenged on not insubstantial grounds. At best it may relieve the government of the necessity for offering proof of custody until the integrity of the evidence has been put in issue. United States v. Starks, 515 F.2d 112, 122 (3d Cir. 1975)

See also United States v. Lampson, 627 F. 2d 62, 65 (7th Cir. 1980) ("The Government's burden . . . cannot be diluted by unwarranted presumptions about the evidence it seeks to introduce"); Bauer v. Veith, 374 Mich. 1, 3, 130 N.W.2d 897, 899 (1964) (presumption cannot be used to "supply missing links in the chain"); 9 J. Wigmore, Evidence § 2534, at 488 (3d ed. 1940) (presumption of regularity "more often mentioned than enforced").

METHODS OF PROOF

A chain of custody may be established in a number of ways, some of which are discussed below.

Stipulation

The chain may be the subject of a stipulation. *See* People v. Perine, 82 Ill. App. 3d 610, 612, 402 N.E.2d 847, 849 (1980) (chain of custody stipulated); People v. Maurice, 31 Ill. 2d 456, 458, 202 N.E.2d 480, 481 (1964) (stipulation failed to state that the material seized from defendant was same material tested by chemist; admission held error); State v. Lagasse, 410 A.2d 537, 541 (Me. 1980) (stipulation that police maintained proper chain of custody of knife while in their possession).

Refreshing Recollection

If the chain of custody is established by the testimony of the persons ("links") who had possession of the object, these witnesses may refresh their recollections by referring to any available documentation. *See* Fed. R. Evid. 612 (use of writings to refresh memory); United States v. Stevenson, 445 F.2d 25, 27 (7th Cir.) (in establishing chain of custody, officers "refreshed their recollection from official records"), cert. denied, 404 U.S. 857 (1971).

Habit and Routine Practice Evidence

The proponent may also introduce evidence of habit or routine practice to establish the chain of custody. Federal Rule 406 provides that "[e]vidence of the habit of a person or of the routine practice of an organization . . . is relevant to prove that the conduct of the person or organization on a particular occasion was in conformity with the habit or routine practice."

Accordingly, evidence of the standard operating procedures of police departments and laboratories in safeguarding real evidence may be used to establish the chain of custody. *See* United States v. Jones, 687 F.2d 1265, 1267 (8th Cir. 1982) (evidence handled by government according to "established procedures"); United States v. Luna, 585 F.2d 1, 6 (1st Cir.) ("normal police procedure"), cert. denied, 439 U.S. 852 (1978); State v. Conley, 32 Ohio App. 2d 54, 62, 288 N.E.2d 296, 302 (1971) ("standard operating procedure" of laboratory).

Documentary Evidence

Sometimes the chain of custody has been established by documentary evidence. *E.g.,* United States v. Luna, 585 F.2d 1, 6 (1st Cir.) (police "accounted for the evidence, either by official records or by testimony concerning normal police procedure"), cert. denied, 439 U.S. 852 (1978); Graham v. State, 253 Ind. 525, 533, 255 N.E.2d 652, 654 (1970) ("police custody records" may be used to establish chain of custody).

For example, courts have held that laboratory slides and labels on specimen bottles fall within the federal Business Records Act because they had been prepared by hospital personnel in the regular course of business. *See* United States v. Duhart, 496 F.2d 941, 944 (9th Cir.), cert. denied, 419 U.S. 967 (1974); Gass v. United States, 416 F.2d 767, 771 (D.C. Cir. 1969).

These cases, however, predate the adoption of the Federal Rules of Evidence. Federal Rule 803(8)(B), which governs the public records exception, specifically excludes "in criminal cases matters observed by police officers and other law enforcement personnel." According to the legislative history, this exclusion was based on the belief that "observations by police officers at the scene of the crime or the apprehension of the defendant are not as reliable as observations by public officials in other cases because of the adversarial nature of the confrontation between the police and the defendant in criminal cases." S. Rep. No. 1277, 93 Cong., 2d Sess. 17, reprinted in 1974 U.S. Code Cong. & Ad. News 7051, 7064.

The scope of the police records exclusion has divided the courts. Some courts seem to apply a per se rule, under which all police reports are automatically excluded, United States v. Ruffin, 575 F.2d 346, 356 (2d Cir. 1978); United States v. Oates, 560 F.2d 45, 67 (2d Cir. 1977), while others have adopted a more flexible approach. For example, some courts have held that Congress "did not intend to exclude [police] records of routine, nonadversarial matters." United States v. Hernandez-Rojas, 617 F.2d 533, 535 (9th Cir.), cert. denied, 449 U.S. 864 (1980); United States v. Orozco, 590 F.2d 789, 793 (9th Cir.), cert. denied, 439 U.S. 1049 (1979). It may be that chain of custody records will be considered routine nonadversarial records.

United States v. Coleman, 631 F.2d 908 (D.C. Cir. 1980), is one of the few cases dealing with the admissibility of chain of custody documents under the Federal Rules. The defendant contended that police reports are never admissible when offered by the prosecution, and thus DEA forms of chemical analysis and lock-seal envelopes containing notations of the date, time, and location of the sale of heroin and an identification of the seller by a John Doe number were inadmissible. The court rejected this argument, holding that the documents were not unreliable on the ground that they were prepared for the purpose of litigation. Although the court recognized that the forms "have certain indicia of 'police reports,' " it found that the forms and lock-sealed envelopes contained "only skeletal information, and are prepared not solely with an eye towards presentation, but towards preserving a record of the chain of custody." *Id.* at 912.

REFERENCES

1 C. McCormick, Evidence § 212 (4th ed. 1992); Giannelli, "Chain of Custody and the Handling of Real Evidence," 20 Am. Crim. L. Rev. 527 (1983); Imwinkelried, "The Identification of Original, Real Evidence," 61 Mil. L. Rev. 145 (1973); Michael & Adler, "Real Proof," 5 Vand. L. Rev. 344 (1952); Annot., Proof of identity of person or thing where object, specimen, or part is taken from a human body, as basis for admission of testimony or report of expert or officer based on such object, specimen, or part, 21 A.L.R.2d 1216 (1952).