

IN THE CASE OF

UNITED STATES, Appellee

v.

Nolan P. GREEN, Sergeant  
U.S. Marine Corps, Appellant

No. 00-0268

Crim. App. No. 99-0162

United States Court of Appeals for the Armed Forces

Argued October 3, 2000

Decided June 11, 2001

EFFRON, J., delivered the opinion of the Court, in which CRAWFORD, C.J., and BAKER, J., joined. SULLIVAN, J., filed an opinion concurring in part and in the result. GIERKE, J., filed a dissenting opinion.

Counsel

For Appellant: Lieutenant M. Eric Eversole, JAGC, USNR (argued).

For Appellee: Lieutenant William C. Minick, JAGC, USNR (argued);  
Lieutenant Colonel Marc W. Fisher, Jr., USMC, and Lieutenant Commander Philip L. Sundel, JAGC, USNR (on brief); Colonel Kevin M. Sandkuhler, USMC, and Commander Eugene E. Irvin, JAGC, USN.

Military Judges: R.E. Nunley and T.J. Hamilton

THIS OPINION IS SUBJECT TO EDITORIAL CORRECTION BEFORE PUBLICATION.

Judge EFFRON delivered the opinion of the Court.

A special court-martial composed of a military judge sitting alone convicted appellant, contrary to his pleas, of one specification of unauthorized absence and two specifications of wrongful use of cocaine, in violation of Articles 86 and 112a, Uniform Code of Military Justice, 10 USC §§ 886 and 912a, respectively. He was sentenced to a bad-conduct discharge, confinement for 68 days, and reduction to the lowest enlisted grade. The convening authority approved these results. In an unpublished opinion, the Court of Criminal Appeals modified the findings, reassessed the sentence, and affirmed only the bad-conduct discharge and reduction to the lowest enlisted grade.<sup>1</sup>

On appellant's petition, we agreed to review whether the evidence of appellant's positive urinalysis provided a legally sufficient basis to sustain his conviction for wrongful use of cocaine.<sup>2</sup> For the reasons set forth below, we affirm.

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<sup>1</sup> The court dismissed one of the specifications of wrongful use of cocaine on the ground of factual insufficiency and affirmed the remaining findings of guilty. The dismissed specification was based upon a urinalysis sample that is not at issue in the present appeal.

<sup>2</sup> We granted review of the following issues assigned by appellant:

I. WHETHER THE LOWER COURT ERRED BY IGNORING THIS COURT'S DECISION IN UNITED STATES V. CAMPBELL, 50 MJ 154 (1999), AS BINDING PRECEDENT.

II. WHETHER APPELLANT'S CONVICTION FOR WRONGFUL USE OF COCAINE WAS FACTUALLY AND LEGALLY INSUFFICIENT BECAUSE THE PROSECUTION FAILED TO ESTABLISH THE

I. FACTUAL BACKGROUND

Upon returning from a lengthy period of leave, appellant provided a urine sample for a command-directed urinalysis, the results of which were positive for the cocaine metabolite benzoylecgonine (BZE). At trial, the Government introduced evidence concerning the urinalysis. The evidence, which consisted of a laboratory report and testimony of a witness from the laboratory who appeared "as an expert in the field of forensic chemistry," was admitted with no defense objection. The report reflected the chain of custody of the urinalysis sample and the positive result of the urinalysis.

The expert witness, a senior chemist at the Navy Drug Screening Laboratory in Jacksonville, Florida, described the laboratory's procedures and explained the results of the urinalysis. The witness testified that there had been three tests of appellant's sample. First, an immunoassay test was used to screen samples for seven different kinds of drugs. When this yielded a positive result for BZE, a second or "rescreen" test was performed, which also yielded a positive result. The

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PREDICATE FACTS NECESSARY TO SUSTAIN A PERMISSIVE  
INFERENCE.

III. WHETHER THE LOWER COURT'S DECISION TO AFFIRM  
APPELLANT'S CONVICTION FOR WRONGFUL USE OF COCAINE,  
WITHOUT EXPERT TESTIMONY CONCERNING THE PHYSIOLOGICAL  
EFFECTS, VIOLATED THE DUE PROCESS CLAUSE.

laboratory then conducted a third test, known as a "confirmation test," using gas chromatography/mass spectrometry (GC/MS) technology, which the witness described as "a very sophisticated state-of-the-art test that does give you a specific identification of a specimen." The witness testified that the GC/MS analysis of appellant's sample revealed 213 nanograms per milliliter (ng/ml) of BZE in appellant's urine. The laboratory report noted that the reading of 213 ng/ml of BZE in appellant's urine was "an amount greater than the DoD [Department of Defense] GC-MS cut-off standard of 100 ng/ml."

The expert witness also stated:

The only way a person can produce a urine sample that has Benzoyllecgonine is for cocaine to pass through the body. In order for that person to produce that urine sample, that person would have to use the cocaine.

When trial counsel asked whether a positive result might occur "from the use of any medications, prescription medications," the witness replied:

To my knowledge, cocaine is not used as a prescription drug. I don't even believe it is used in the surgical setting. It used to be used years ago. There will be no other drugs that could cause a positive result for cocaine. It has to be cocaine itself. To my knowledge, the only place you can get it now is pretty much on the street clandestinely.

On cross-examination, the expert witness acknowledged that BZE could be detected through urinalysis if someone put cocaine into the sample directly, outside the body. Additionally, he testified that a reading of 213 ng/ml is "on the low end of positive results." He added: "A lot of times we see samples of 100,000 nanograms or higher."

Although appellant did not testify, he offered a defense based on his good military character through the testimony of other witnesses. His primary contention was that it would have been illogical for a person of appellant's character and experience to have used cocaine. The defense also raised questions about the chain of custody, a matter not at issue in the present appeal, to suggest that the urine that had tested positive for BZE belonged to someone other than appellant. He did not affirmatively claim innocent or unknowing ingestion.

## II. DISCUSSION

To obtain a conviction under Article 112a for wrongful use of a controlled substance, the prosecution must prove:

- (a) That the accused used a controlled substance; and
- (b) That the use by the accused was wrongful.

Para. 37b(2), Part IV, Manual for Courts-Martial, United States (2000 ed.). The Manual also provides:

Knowledge of the presence of the controlled substance is a required component of [wrongful] use. Knowledge of the presence of the controlled substance may be inferred from the presence of the controlled substance in the accused's body or from other circumstantial evidence. This permissive inference may be legally sufficient to satisfy the government's burden of proof as to knowledge.

Para. 37c(10), Part IV; see also Analysis of Punitive Articles, Manual, supra at A23-12, citing United States v. Mance, 26 MJ 244 (CMA 1988); United States v. Ford, 23 MJ 331 (CMA 1987); and United States v. Harper, 22 MJ 157 (CMA 1986).

The "wrongful" element in Article 112a, which has been the source of extensive interpretative litigation, represents the considered judgment of Congress as to the nature of the offense. Because the statute does not have the clarity of a bright line rule, compare, e.g., Art. 111(2), UCMJ, 10 USC § 911(2) (making it an offense to drive with a blood alcohol level of "0.10 grams"), there has been significant litigation concerning its meaning. Harper and its progeny reflect the challenge of interpreting the statute in a manner that appropriately balances disciplinary considerations, the rights of servicemembers, and evolving legal standards concerning admissibility of expert evidence.

Appellant contends that the evidence in his case was insufficient to prove wrongful use, citing our opinion in United

States v. Campbell, 50 MJ 154 (1999), supplemented on reconsideration, 52 MJ 386 (2000). The accused in Campbell was charged with wrongful use of LSD based solely upon a positive urinalysis that employed a novel scientific procedure. At trial, defense counsel moved to exclude evidence of the urinalysis and the supporting expert testimony on the grounds that the test at issue did not meet the standards of reliability required by Mil. R. Evid. 702, Manual, supra, and applicable case law. The motion was denied by the military judge, and the accused was convicted on the basis of the urinalysis results and related testimony.

On appeal, we determined that the military judge erred in admitting the LSD test results, in view of "the absence of evidence establishing the frequency of error and the margin of error in the testing process" with respect to the novel scientific procedure. 52 MJ at 388. The identification of deficiencies in the reliability of the test rendered the urinalysis evidence inadmissible and, in the absence of other evidence, resulted in reversal of the case due to insufficient evidence. This aspect of the opinion underscored the importance of a careful inquiry into the reliability of novel scientific evidence.

After addressing the issue necessary to resolve the case, our opinion in Campbell ventured beyond the issue of reliability

of the methodology in an effort to provide additional guidance concerning proof in urinalysis cases. In that context, we described a three-part approach to consideration of urinalysis results. Id. In our opinion upon reconsideration, we emphasized that the three-part approach did not establish a mandatory standard. Id. We noted that other evidence explaining the test results could be admissible if it met applicable reliability and relevance standards for scientific and specialized knowledge with respect to providing a rational basis for inferring knowing, wrongful use. Id. at 388-89.

The court below in the present case, and in the later cases certified to us by the Judge Advocate General, conscientiously endeavored to apply the broad guidance we fashioned in Campbell. See, e.g., United States v. Barnes, 53 MJ 624 (N.M.Ct.Crim.App. 2000), set aside, \_\_\_ MJ \_\_\_ (Daily Journal June 11, 2001). Our consideration of the decisions of the lower courts, however, has led to further questions concerning matters such as the relationship between admissibility of novel scientific evidence and sufficiency of proof on the merits; consideration of the permissive inference of knowing use with respect to admissibility of novel scientific evidence; the role of judicial notice; and the effect of waiver or forfeiture. These questions indicate that we should give



fresh attention in the present case to the applicable principles governing litigation of urinalysis cases.

Under our case law, where scientific evidence provides the sole basis to prove the wrongful use of a controlled substance, "[e]xpert testimony interpreting the tests or some other lawful substitute in the record is required to provide a rational basis upon which the factfinder may draw an inference that [the controlled substance] was [wrongfully] used." United States v. Murphy, 23 MJ 310, 312 (CMA 1987). The admissibility of such evidence is subject to applicable rules governing opinions and expert testimony. See, e.g., Mil. R. Evid. 702; United States v. Bush, 47 MJ 305 (1997); see also Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 589 (1993) (scientific testimony must be both reliable and relevant); General Electric Co. v. Joiner, 522 U.S. 136, 144-45 (1997) (an expert's opinions must be "sufficiently supported" by the "studies on which they purport[] to rely"); Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 153-55 (1999) (admissibility depends not only on the general reasonableness of an expert's approach but also on the particular matter to which the expert's testimony was directly relevant).

The military judge has broad discretion as the "gatekeeper" to determine whether the party offering expert testimony has established an adequate foundation with respect to reliability

and relevance. See id. at 142; Bush, supra at 310. The military judge, as gatekeeper, may determine in "appropriate circumstances" that the test results, as explained by the expert testimony, permit consideration of the permissive inference that presence of the controlled substance demonstrates knowledge and wrongful use. See Mance, 26 MJ at 256. In making this determination, the military judge may consider factors such as whether the evidence reasonably discounts the likelihood of unknowing ingestion, or that a human being at some time would have experienced the physical and psychological effects of the drug, but these factors are not mandatory. Compare, e.g., Harper, 22 MJ at 157, and Ford, 23 MJ at 331, with United States v. Thompson, 34 MJ 287 (CMA 1992).

In the context of the permissive inference, the military judge has discretion to determine the issue of admissibility by considering whether: (1) the metabolite is naturally produced by the body or any substance other than the drug in question; (2) the permissive inference of knowing use is appropriate in light of the cutoff level, the reported concentration, and other appropriate factors; and (3) the testing methodology is reliable in terms of detecting the presence and quantifying the concentration of the drug or metabolite in the sample. We emphasize, however, that this three-part approach is not exclusive, and the military judge as gatekeeper may consider

other factors, so long as they meet applicable standards for determining the admissibility of scientific evidence.<sup>3</sup> Given the unique aspects of drug prosecutions in the armed forces and the serious consequences of a positive urinalysis, the military judge must ensure a careful and thorough Daubert-type analysis in such cases. See, e.g., United States v. Bush, 44 MJ 646, 649-52 (A.F.Ct.Crim.App. 1996), aff'd, 47 MJ 305 (1997) (describing the detailed inquiry conducted by the military judge prior to admitting evidence of novel scientific evidence testing the presence of cocaine through hair analysis).<sup>4</sup>

When the military judge is considering evidence of a test that does not involve a novel scientific procedure, different considerations apply. If the expert testimony has "an established scientific, technical, legal, judicial, or evidentiary foundation" regarding reliability and relevance, it may be appropriate to take judicial notice under Mil. R. Evid.

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<sup>3</sup> Judge Sullivan seeks greater clarity on this important subject. As noted earlier, however, Congress has not employed a bright line rule. In view of the emphasis in this opinion on the broad discretion of the military judge as to matters that may be considered in his or her gatekeeper role in assessing the relationship between expert testimony and the presumption of knowing use, this opinion does not adopt the interpretative gloss suggested in Judge Sullivan's separate opinion.

<sup>4</sup> Judge Gierke contends that this opinion transforms Article 112a into an "absolute-liability offense," permits a conviction based upon "the mere presence of a drug metabolite in the body," \_\_\_ MJ at (1), and transforms the Daubert-type analysis. \_\_\_ MJ at (5). The present opinion does not adopt such a position. What the military judge must determine is whether the expert's testimony supports the matter to which it is relevant; that is, does the expert's testimony permit reliance on a permissive inference of knowing use. See Kumho Tire, supra at 153-58.

201 without further litigation. See Stephen A. Saltzburg, et al., Military Rules of Evidence Manual 841 (4th ed. 1997). Moreover, if a party fails to challenge the admissibility of expert testimony, the issue may be treated as waived, absent plain error. Mil. R. Evid. 103(a)(1) and (d); see Saltzburg, et al., supra at 840-41.

If the military judge determines that the scientific evidence -- whether novel or established -- is admissible, the prosecution may rely on the permissive inference during its case on the merits. A urinalysis properly admitted under the standards applicable to scientific evidence, when accompanied by expert testimony providing the interpretation required by Murphy, supra, provides a legally sufficient basis upon which to draw the permissive inference of knowing, wrongful use, without testimony on the merits concerning physiological effects. See United States v. Bond, 46 MJ 86, 89 (1997). To the extent that the prosecution, as a matter of trial tactics, includes in its case on the merits other evidence, such as testimony concerning physiological effects, it is the responsibility of the factfinder to determine what weight should be given to such evidence. Id. at 89-90.

In contrast to the accused in Campbell, appellant did not move at trial to exclude the test results or the expert testimony. This evidence, as summarized in Part I, supra, is

sufficient to support the permissive inference of knowing, wrongful use. Any objection appellant may have had was forfeited, and there was no error -- much less plain error -- in admitting the evidence. The weight of any evidence introduced on the merits by the defense at trial was a matter for consideration by the factfinder -- here, the military judge -- on the question of factual sufficiency, and it did not affect the legal sufficiency of the conviction based upon the permissive inference of knowing, wrongful use.

### III. CONCLUSION

The decision of the United States Navy-Marine Corps Court of Criminal Appeals is affirmed.

SULLIVAN, Judge (concurring in part and in the result):

In Belfast, during the height of the "troubles" (the seemingly never-ending struggle between the Protestants and the Catholics in Northern Ireland), there was a popular saying:

Anyone who isn't confused here really  
doesn't understand what is going on.

I have sensed similar confusion in our case law concerning urinalysis test results and, perhaps, so has the Judge Advocate General of the Navy who recently certified no less than seven drug cases to this court on this specific issue. <sup>1</sup>

#### The Confusion Over Campbell

This Court's more recent case law in the area of drug testing in the military has caused this confusion. I speak primarily of the twin Campbell opinions: United States v. Campbell, 50 MJ 154 (1999) ("Campbell I"), and United States v. Campbell, 52 MJ 386 (2000) ("Campbell II"). Hopefully, this confusion will end because, in the instant case, our Court now recognizes the problem. Although I still believe the Campbell decisions were wrongly decided, I join the majority's "fresh attention" to the "applicable principles governing litigation of urinalysis cases."

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<sup>1</sup> United States v. Barnes, United States v. Magyari, United States v. Mahoney, United States v. Shelhart, and United States v. Powe, 54 MJ 225-26 (2000); United States v. Sterne, 54 MJ 233 (2000); United States v. Ryan, 54 MJ 332 (2000). The Court of Criminal Appeals reversed drug convictions in all these cases on the basis of legal insufficiency of urinalysis evidence, citing the Campbell decisions.

\_\_\_ MJ at (9). In particular, I agree with the majority's express limitation of the twin Campbell decisions to the question of the admission of novel scientific evidence of urinalysis proffered by the Government to show drug use. See United States v. Bush, 47 MJ 305 (1997); United States v. Youngberg, 43 MJ 379 (1995); United States v. Nimmer, 43 MJ 252 (1995). I also agree with its holding in this case that there is no mandatory foundational requirement for the admission of urinalysis evidence (old or new) that the Government show a certain nanogram count rules out innocent ingestion and that the Government must establish that a normal person would have experienced the physical and psychological effects of the drug.

Appellant's case is but one example of the Campbell confusion. In the instant case, the appellate court below effectively ignored the majority decision in Campbell I on the basis that a motion for reconsideration was pending and affirmed this conviction using the cases cited in my dissent in Campbell I. See Green, unpub. op. at 2; 50 MJ at 162; see also United States v. Pugh, No. 9600811 (Army Ct. Crim. App. Dec. 8, 1998) (unpub. op.). Another example is United States v. Tanner, 53 MJ 778 (A.F. Ct. Crim. App. 2000), where the lower appellate court purported to follow Campbell I but still affirmed a drug conviction. There is also United States v. Barnes, 53 MJ 624 (N.M. Ct. Crim. App. 2000), set aside, \_\_\_ MJ \_\_\_ (Daily Journal June 11, 2001), and the cases cited in note 1, supra, where the

lower appellate court reversed drug convictions using the majority opinions of the twin Campbells.

Although it is my earnest hope that today's decision will make clear the law pertaining to drug test results, it is important to understand the root of the Campbell confusion. In my view, the confusion started in the portion of Campbell I which required the Government to meet a three-part standard of proof for "legal sufficiency," which included evidence

that the [drug] cutoff level and reported concentration are high enough to reasonably discount the possibility of unknowing ingestion and to indicate a reasonable likelihood that the user at some time would have "experienced the physical and psychological effects of the drug[.]"

50 MJ at 160. To this deviation from our case law, I dissented. The majority, however, refused to even acknowledge this holding was a departure from our case law. 50 MJ at 162.

Then came Campbell II. Campbell II was an opinion of our Court in response to the Government's motion to reconsider Campbell I. Campbell II, however, added a lack of clarity to the existing confusion by its apparent backing-off from the three-part standard of Campbell I.<sup>2</sup> It stated:

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<sup>2</sup> Campbell II also held that proof that "human beings as a class" experienced the physical and psychological effects of the drugs was legally sufficient (unlike Campbell I, which required proof concerning the effects experienced by the accused person



The petition for reconsideration raises the issue of whether the three-part standard is mandatory in all drug testing cases. Given the rapid pace of technological change, we note that the three-part standard does not necessarily constitute the only means of proving knowing use. If the test results, standing alone, do not provide a rational basis for inferring knowing use, then the prosecution must produce other direct or circumstantial evidence of knowing use in order to meet its burden of proof.

52 MJ at 388 (emphasis added).

In my view, the problem of clarity in Campbell II seems rooted, in part, in the guidance noted above. To me, this guidance is unclear. When does a litigant (either the prosecution or the accused) know that in their case "the test results, standing alone, do not provide a rational basis for inferring knowing use?" Prosecutions and defenses of felony drug cases should be built on firmer and clearer guidance. Without such guidance, the law could be applied unequally (unfortunately, this may have already happened--as I shall suggest below).

As stated before, I am pleased that the majority opinion today takes the opportunity to substantially correct the confusion previously caused by the twin Campbells. It makes clear that the twin Campbells are only applying the three-part standard (or a legally equivalent alternative) to matters

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who actually took the test). 52 MJ at 389. I address the propriety of this proof requirement later in this opinion.

concerning admissibility of novel scientific evidence.<sup>3</sup>

Moreover, it makes clear that proof ruling out innocent ingestion or establishing that a normal user would have felt the effects of the drug is not required, even for admission of novel scientific evidence. See United States v. Bush, supra, United States v. Youngberg, supra, and United States v. Nimmer, supra.

As I mentioned above and as a final point to illustrate the impact of the Campbell-confusion issue, I wish to compare the present case of Sergeant Green with the case of Lance Corporal Warren T. Collins. United States v. Collins, No. 99-1217 (N.M. Ct. Crim. App. July 28, 2000) (unpub. op.), pet. denied, 54 MJ 430 (2001). Both are Marines. Both trials were at Marine bases in North Carolina at approximately the same time (Green was sentenced in December 1997 and Collins was sentenced in July 1998). Both were convicted of using cocaine based on urinalysis tests at the same testing site in Jacksonville, Florida. (Green lab result was 213 nanograms per milliliter of BZE (the metabolite for cocaine) and Collins lab result was 561 nanograms per milliliter). The lab test procedure was the same for both Green and Collins (radioimmunoassay analysis ("RIA") followed by a gas chromatography - mass spectrometry ("GCMS") test). Both Green and Collins went AWOL (absent without leave) weeks after

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<sup>3</sup> It is interesting to note that the phrase "admissibility of novel scientific evidence" is not to be found in either of the twin Campbell opinions, but the phrase "legal sufficiency" is. 52 MJ at 388; 50 MJ at 160-61. (See note 1, supra).

their drug tests. Both had their convictions reviewed by the same Court of Criminal Appeals. There, the similarities end.

Green today has his drug conviction affirmed, and forever he will have the record of a federal felony drug conviction. Collins, on the other hand, had his drug conviction reversed by the Court of Criminal Appeals and does not have a federal drug record. Two completely different results from the same Court of Criminal Appeals. Why? The answer is Campbell. As the Court of Criminal Appeals said in Collins:

The recent decision of our superior court in Campbell significantly modified the conditions under which the Government may rely upon this permissive inference [the inference of knowing use].

Although Campbell dealt with lysergic acid diethylamide and the reliability of the testing methodology employed in that case, we do not believe that Campbell can be limited to its facts . . . . Campbell, however, provides that the "prosecution cannot rely solely on the presence in the body of the drug or its constituent elements." Campbell, 50 MJ at 160 (1999).  
. . . .

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In the appellant's case, the Government adequately established that BZE does not naturally occur in the human body, and that the result of the urine test was reliable. We find, however, that the testimony of LT Taylor [the lab expert] did not establish that the cutoff level and the appellant's nanogram level was sufficient to discount unknowing use and to indicate that the appellant experienced the physical and psychological effects of

the drug. Additionally, no other evidence presented was sufficient to permit the prosecution to rely upon the inference. See Campbell, 52 MJ at 388-89. Since the prosecution is not entitled to rely upon the presumption of knowing use in this case, and since it did not present any other direct or circumstantial evidence of knowing use, we find that the evidence is legally insufficient to prove the first element of the offense. See United States v. Barnes, 53 MJ 624 (N.M. Ct. Crim. App. 2000).

Unpub. op. at 3-4 (emphasis added).

Since Collins was a drug conviction reversal which was never appealed to our Court by the Government in the certification process, Collins now stands acquitted of drug use. Yet Green has a federal felony drug conviction on his record. To me, it seems unfair that Green and Collins are treated differently under the law.

Harper, Ford, and the Twin Campbells

For almost fifteen years, our military justice system has operated on the presumption that United States v. Harper, 22 MJ 157 (CMA 1986), and United States v. Ford, 23 MJ 331 (CMA 1987), are good law. These cases recognize that urinalysis evidence may be admitted at court-martial but require its reliability to be shown to the factfinder in each case in order to legally sustain a criminal conviction. See United States v. Murphy, 23 MJ 310 (CMA 1987); cf. Skinner v. Railway Labor Executives' Ass'n, 489 U.S. 602, 632-33 (1989) (Supreme Court approval of urinalysis

evidence in administrative proceedings). In my view, these decisions are still good law, and under the doctrine of stare decisis, they deserve great weight today. See United States v. Tualla, 52 MJ 228, 231 (2000).

I have been concerned that the twin Campbell decisions have raised questions concerning the meaning and correctness of those decisions, which have greatly upset the practice of military law. More importantly, Campbell I and II called into question the validity of hundreds of thousands of urinalysis tests and thousands of prosecutions based on the reported results of those tests. Today, the majority's "fresh attention" to the Campbell decisions, both restricting and modifying their holdings with respect to the admission of "novel scientific evidence," alleviates my concern. \_\_\_ MJ at (8). Nevertheless, I write to make clear my views in this area of the law.

First, United States v. Harper, supra, did not establish an inflexible evidentiary-sufficiency rule for all urinalysis cases. See United States v. Boulden, 29 MJ 44, 47 (CMA 1989). It evaluated and approved the particular evidence presented in Harper, i.e., evidence raising a permissive inference of wrongfulness recognized in military law and additional expert testimony that a particular nanogram count ruled out passive inhalation and indicated that the user at some time experienced physical and psychological effects of the drug. United States v.

Harper, supra at 163. In United States v. Ford, supra at 336-37, however, this Court further addressed the legal sufficiency of proof based on the permissive inference alone, i.e., without additional expert testimony on the nanogram count and its bearing on passive inhalation or the experience of physical and psychological effects of the drug. See generally United States v. Van Horn, 26 MJ 434, 437 (CMA 1988) (expert testimony relating nanogram count to the degree of certainty that drug in urine); cf. United States v. Harper, supra (expert testimony relating nanogram count to the probability that user felt physical or psychological effects of drug).

Second, this Court approved the more limited type of proof in Ford and has done so repeatedly in subsequent cases. In United States v. Campbell, 50 MJ at 162 (Sullivan, J., dissenting), I said:

In reality, therefore, the majority makes new law in this case and, in the process, raises serious questions about military drug prosecutions based on our past cases. Harper was the first word, not the last word or the only word, on the subject of sufficiency of evidence in urinalysis cases. See United States v. Bond, 46 MJ 86 (1997); United States v. Pabon, supra; United States v. Thompson, 34 MJ 287 (CMA 1992); United States v. Boulden, supra; United States v. Ford, 23 MJ 331 (CMA 1987). Moreover, the majority's new approach to drug prosecutions goes far beyond the rules for proving drug cases now provided by the President in the Manual for Courts-

Martial, United States (1998 ed.). See para. 37(c), Part IV. I must dissent.

In short, contrary to Campbell I and II, this Court has never required the Government (for evidentiary sufficiency purposes or for evidentiary admissibility purposes) to introduce evidence that a certain nanogram count discounted innocent ingestion and indicated that the accused, or a user in general, would have experienced the physical or psychological effects of the drug. See United States v. Pabon, 42 MJ 404, 406-07 (1995); cf. United States v. Hunt, 33 MJ 345, 347 (CMA 1991) (legal insufficiency found because no testing data whatsoever or expert testimony explaining it admitted). Accordingly, I applaud the majority's ending of this confusion and its rejection of an evidentiary sufficiency approach to Campbell I and Campbell II. I also join its adoption of a more flexible approach to the admission of urinalysis evidence, even in cases involving novel scientific evidence. See United States v. Bush, supra, United States v. Youngberg, supra, and United States v. Nimmer, supra; see generally Paul Giannelli and Edward Imwinkelried, Scientific Evidence: The Fallout from Supreme Court's Decision in Kumho Tires, 14 Criminal Justice (ABA Winter 2000).

Put simply, the Government is not required to disprove innocent ingestion or show that a particular accused in a drug case felt the physical and psychological effects of the drug he was accused of taking, or that a user in general would have felt

such effects. It is unclear whether the state of the art in drug testing would permit these requirements to be met in many cases.

The Decision in This Case

For me, this case is a simple one to decide using our existing case law (minus the twin Campbells). The record shows that the drug conviction at issue in this case was supported by proper expert testimony concerning the test results on a urine sample using RIA (R. 102-03) and GCMS analysis. (R. 104) Our Court has approved the admission and legal sufficiency of such evidence in United States v. Harper, supra, and more recently in United States v. Bond, 46 MJ 86, 89 (1997). I agree with the majority today that this evidence was admissible and legally sufficient to prove beyond a reasonable doubt that appellant wrongly used cocaine. See United States v. Ford, supra. Therefore, I vote to affirm the conviction in this case.



GIERKE, Judge (dissenting):

En route to affirming the decision below in this case, the majority has offended the Due Process Clause of the Constitution, transformed Article 112a into an absolute-liability offense, and modified the test for admissibility of scientific evidence. I believe that the mere presence of a drug metabolite in the body, standing alone, is insufficient to overcome the presumption of innocence. United States v. Bond, 46 MJ 86, 92 (1997) (Gierke, J., dissenting); see United States v. Harper, 22 MJ 157, 163-64 (CMA 1986).

"An inference is 'irrational' or 'arbitrary' and thus violates due process 'unless it can at least be said with substantial assurance' that the inferred fact is 'more likely than not to flow from the proved fact on which it is made to depend.'" Bond, supra, quoting Barnes v. United States, 412 U.S. 837, 842 (1973). Furthermore, "[i]f the permissive inference is the only proof of guilt, then it must meet a higher standard than 'more likely than not'; it must flow from the proved fact beyond a reasonable doubt." Id., citing Turner v. United States, 396 U.S. 398 (1970), and E. Imwinkelried, P. Giannelli, F. Gilligan, and F. Lederer, Courtroom Criminal Evidence § 2920 at 975 (2d ed. 1993); see State v. Flinchpaugh, 659 P.2d 208, 212 (Kan. 1983) (discovery of drug in person's blood insufficient to prove knowing possession).

The majority opinion permits the trier of fact to infer drug use from the presence of the metabolite in the body, and then to use the same evidence to infer knowing use, without any other evidence from which knowing use may be inferred. Proof of the first element of the offense, i.e., use, automatically proves the second element, i.e., wrongfulness.

The majority asserts that it is not creating an absolute liability offense. \_\_\_ MJ at (11 n.4). It recognizes that Congress did not intend Article 112a to create an absolute-liability offense. However, when a court-martial may convict an accused based solely on the presence of a metabolite in the body, we have created an absolute-liability offense, no matter how we rationalize it or what we call it.

In Harper, supra, this Court held that a reliable urinalysis supplemented by expert testimony that the metabolite was not naturally produced by the body was sufficient to permit an inference of use. This Court declined, however, to hold that the results of a urinalysis test, standing alone, were sufficient to prove wrongful use.

In United States v. Ford, 23 MJ 331, 336-37 (CMA 1987), this Court specifically addressed, for the first time, the "constitutional sufficiency" of the permissive inference of wrongfulness. This Court concluded that it "comports with due process," because of the limited access to drugs in the armed forces, which greatly reduces the probability of innocent ingestion; the fact that servicemembers are on notice to avoid

any and all contact with drugs, "which further reduces the possibility of innocent ingestion;" the fact that "the physiological effects from the internal presence of the drug in the body might serve to alert the user to the presence of a controlled substance in his system;" and the fact that a person "generally knows what he consumes." Based on these premises for the permissive inference, this Court concluded that there was "no constitutional violation" in a conviction based on the inference of wrongfulness, even if the accused presents evidence to the contrary. Ford cites Harper with approval in several places (23 MJ at 332, 333, 336, and 337), strongly indicating that this Court intended Ford to be consistent with Harper, and not to overrule it or erode it in any way.

In Bond, supra, this Court deviated from the Harper-Ford approach and upheld a conviction based solely on the permissive inference of knowledge, even though the factual predicate for the inference that had been set out in Ford was missing. Accordingly, I dissented.

In Campbell I, 50 MJ 154 (1999), and Campbell II, 52 MJ 386 (2000), this Court returned to the Harper-Ford analysis. The majority now attempts to recast Campbell I and Campbell II as decisions based on admissibility of novel scientific evidence, instead of decisions based on sufficiency of the evidence. Unfortunately, the language of the decisions belies the majority's attempt. While the granted issue in Campbell I was the admissibility of evidence obtained through a novel testing

procedure, this Court declined to address the granted issue.

Instead, it decided the case on the basis of two issues specified by the Court, both involving sufficiency of the evidence. 50 MJ 161-62. Similarly, Campbell II was not decided on the basis of admissibility of the evidence, but on the legal insufficiency of the evidence. In Campbell II, we said:

In the present case, the deficiency was the absence of evidence establishing the frequency of error and margin of error in the testing process. Lacking such evidence, we held that the prosecution did not reliably establish that appellant's urine sample tested at or above the Department of Defense cut-off level and did not reasonably exclude the possibility of unknowing ingestion. Since the prosecution did not present any other direct or circumstantial evidence of knowing use, we held the evidence was legally insufficient to prove this element of the offense.

52 MJ at 388 (emphasis added).

Furthermore, even if we decided this case solely on the basis of the admissibility of the urinalysis test results, I would be unable to join the majority. The majority expands the holding in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), to require the military judge to assess, as a condition precedent to admissibility, whether the urinalysis test results support the inference of "knowing use." \_\_ MJ at (11 n.4). By requiring the military judge to determine, as a condition precedent to admissibility, that the expert testimony tend to prove "knowing use," the majority requires that the expert testimony tend to prove both elements of the offense: (1) use; and (2) wrongfulness, of which knowledge is a component. See

paras. 37b(2)(a) and (b) and para. 37b(5), Part IV, Manual, supra.

In my view, Daubert established standards for determining the reliability of scientific evidence. It did not establish standards for overcoming the presumption of innocence, nor did it establish a requirement that scientific evidence tend to prove all elements of an offense as a condition of admissibility. To be admissible, a reliable drug test need only "assist the trier of fact to understand the evidence or to determine a fact in issue." Mil. R. Evid. 702, Manual for Courts-Martial, United States (2000 ed.); Daubert, supra at 591. It need not, as the majority requires, tend to prove both elements of the offense. The majority's decision goes far beyond what Daubert requires.

This Court decided long ago in Harper that a reliable urinalysis test is relevant to prove use, because use may be inferred from the presence of a drug metabolite in the body. The majority now requires that, in order to be relevant, the urinalysis test must not only support an inference of use, it must also support an inference of knowing use.

In my view, a reliable urinalysis test is relevant under Daubert to prove use of drugs. However, it does not prove knowing use unless it is supplemented by expert testimony or other evidence showing knowing use, or at least permitting knowledge to be rationally inferred. See United States v. Murphy, 23 MJ 310, 312 (CMA 1987). In Campbell II, this Court held, "If the test results, standing alone, do not provide a

rational basis for inferring knowing use, then the prosecution must produce other direct or circumstantial evidence of knowing use in order to meet its burden of proof." 52 MJ at 388.

In the case before us, I consider it significant that the Government has failed to present any evidence to support its argument that this is an impossible evidentiary burden. It may be met by circumstantial evidence of knowing use that is extrinsic to the urinalysis test, as in United States v. Barnes, 53 MJ 624 (N.M.Ct.Crim.App. 2000), set aside, \_\_\_ MJ \_\_\_ (Daily Journal June 11, 2001), or by expert testimony that the metabolite level was high enough to reasonably discount the possibility of unknowing ingestion and to indicate a reasonable likelihood that the user would have experienced the physical and psychological effects of the drug. As we emphasized in Campbell II, it is not necessary that the expert testify that a particular accused would have experienced the effects of the drug. "It is sufficient if the expert testimony reasonably supports the inference with respect to human beings as a class." 52 MJ at 389.

I have consistently taken the position that the Due Process Clause does not permit courts-martial to convict an accused of a felony drug offense based solely on the presence of a drug metabolite in his or her body. The majority's decision in this case is inconsistent with that position. Accordingly, I dissent. See United States v. Bond, supra.