

STATE OF MINNESOTA
IN SUPREME COURT

A07-1166

Hennepin County

Page, J.
Took no part, Magnuson, C.J.

State of Minnesota,

Respondent,

vs.

Filed: August 21, 2008
Office of Appellate Courts

Nicholas E. Bartylla,

Appellant.

Lawrence Hammerling, Chief Appellate Public Defender, Benjamin J. Butler, Assistant State Public Defender, St. Paul, Minnesota, for appellant.

Lori Swanson, Attorney General, St. Paul, Minnesota; and

Michael O. Freeman, Hennepin County Attorney, Linda M. Freyer, Assistant County Attorney, Minneapolis, Minnesota, for respondent.

S Y L L A B U S

1. Minnesota Statutes § 609.117 (2002) does not authorize an unreasonable search and seizure under the totality-of-the-circumstances test and therefore does not violate the Fourth Amendment to the United States Constitution.

2. Minnesota Statutes § 609.117 does not violate Article I, Section 10, of the Minnesota Constitution.

3. The expression of the statistical significance of a match between DNA samples raises questions of relevance but not of science, and no *Frye-Mack* hearing is required to determine the admissibility of such evidence.

4. The trial court did not abuse its discretion in admitting evidence of the defendant's prior conviction for burglary.

5. A defendant must provide argument or legal authority for his pro se claims, unless any error is obvious upon inspection, or the claims will be deemed waived.

Affirmed.

OPINION

PAGE, Justice.

Appellant Nicholas E. Bartylla was convicted of murder in the first degree while committing criminal sexual conduct in violation of Minn. Stat. § 609.185(a)(2) (2006), and was sentenced to life imprisonment for the November 9, 2002, murder of May Mary Pelto. At Bartylla's trial, the State presented evidence indicating that the profile of DNA left at the Pelto crime scene was a "cold hit" match to the profile of Bartylla's DNA, which had been entered into a state-mandated DNA database of known DNA providers. In this direct appeal, Bartylla argues through counsel that: (1) the taking of his DNA sample under Minn. Stat. § 609.117 (2002) was a warrantless, suspicionless search in violation of the Fourth Amendment of the United States Constitution and Article I, Section 10, of the Minnesota Constitution; (2) the trial court erred in allowing an expert

to use the “product rule” to describe the statistical significance of the cold hit DNA match; and (3) admission of evidence of Bartylla’s previous burglary conviction prejudiced Bartylla’s right to a fair trial. In his pro se supplemental brief, Bartylla alleges 14 additional trial errors. We affirm.

On November 8, 2002, Gary McCullum had dinner and watched television with his 88-year-old mother, May Mary Pelto, who lived alone in a fourplex in Maple Grove, Minnesota. He went home around 9:30 p.m. Pelto called McCullum at 12:30 a.m. and said she was going to bed. McCullum called Pelto at about 10 a.m. on November 9 to remind her to take her prescription medicine, but the line was busy. He continued calling Pelto for the next 2 hours to no avail. He eventually went to her home.

As he approached Pelto’s home, McCullum noticed the blinds in her bedroom were down, which was unusual. According to McCullum, although he used a key to enter the home, he did not think the front door was locked at the time because there was a lack of resistance when he turned the key to unlock the door. He found Pelto lying on her bed on her back, with the covers pulled up. When he saw injuries on her face, he called 911. He went downstairs and noticed that the sliding glass door, which his mother did not use, was open 3 to 4 inches, although the drapes on the door were closed.

Officers responding to the 911 call found Pelto lying on the bed with no pulse. She had a black eye, “blood [was] coming from either her mouth or her nose area,” and there was what appeared to be blood on the wall next to the bed. They also observed the partially open sliding glass door. A crime lab technician on the scene testified that, although Pelto’s purse with cash in it was in plain sight, it appeared that nothing had been

taken from the home. Investigators from the medical examiner's office took photographs documenting the "essentially undisturbed" crime scene. The position of Pelto's body in the bed suggested that she had been sexually assaulted. A sexual assault kit collected during Pelto's autopsy revealed the presence of semen, confirming that Pelto had been sexually assaulted.

In addition to evidence of the sexual assault, the autopsy revealed "blunt force injury" inflicted on Pelto's face. Pelto had bruising inside her mouth, fractured facial bones, a contusion covering "the whole right side of her face," a superficial brain injury, and small bruises and scratches on her back and hands. In the medical examiner's opinion, the cause of Pelto's death was "homicidal violence" and the manner of her death was "homicide." Without any leads, the Pelto homicide investigation grew cold. Based on a DNA cold hit match 3 years later,¹ the State charged Bartylla with first-degree murder for Pelto's death.

At trial, Detective John Seery testified that he was involved with the Pelto investigation first as an investigator and subsequently as part of the Bureau of Criminal Apprehension (BCA) cold case homicide unit. He testified that there was no evidence of a forced entry at Pelto's apartment. He further testified that DNA analysis was performed on semen taken from Pelto's body at the autopsy. A DNA profile was then

¹ A "cold hit" occurs when an unknown suspect is identified by matching an unknown DNA contributor's DNA profile from an unsolved crime with the DNA profile of a known contributor from a DNA database.

developed and entered into a forensic database of DNA profiles from unknown individuals suspected of being involved in unsolved crimes.

Suzanne Weston-Kirkegaard, a DNA analyst from the Hennepin County Sheriff's Department Crime Lab, testified as an expert witness for the State. In addition to providing general information about DNA and her laboratory procedures, she testified that she performed the DNA typing of the sperm and semen found on vaginal swabs taken from Pelto's body. She also tested DNA samples from Pelto's son and 53 other known individuals "plus assorted effects from different people" and determined that none of the resulting DNA profiles matched the DNA left at the Pelto crime scene. Weston-Kirkegaard entered the DNA profile from Pelto's unknown contributor into the state-mandated database maintained by the BCA and also asked the BCA to run searches of the profile against the state's database of DNA profiles from known contributors. On January 13, 2006, Weston-Kirkegaard was informed that a match had been made. The match was with the profile of a DNA sample taken from Bartylla, which had been placed in the BCA's DNA database of known contributors pursuant to the requirements of Minn. Stat. § 609.117.² A second DNA sample then was taken from Bartylla that, when compared with the profile of the sample taken from Pelto, confirmed the match.

² Although the record is not clear, it appears that Bartylla provided his DNA sample for the database pursuant to Minn. Stat. § 609.117 (2002) after being convicted of burglary in 2004. That statute required certain convicted felons to provide DNA samples. The statute was amended in 2005 to include some nonfelony convictions that arise out of the same set of circumstances as a felony. *See* Act of June 2, 2005, ch. 136, art. 12, § 9, 2005 Minn. Laws 901, 1064-66. The question of whether we would apply Minn. Stat. § 609.117 (2006) to nonfelonies is not before us.

Weston-Kirkegaard testified that all 13 of the DNA loci tested plus the sex chromosomes from the DNA sample left at the Pelto crime scene matched Bartylla's DNA profile. Weston-Kirkegaard also tested multiple objects found at the crime scene for DNA, including the sheet, the carpet, the blood on the wall, a bandage, and a towel. Nothing was found that was not explained by either Pelto's or Bartylla's DNA. In addition, Weston-Kirkegaard testified about the procedure she used to calculate the likelihood of a match between the crime scene DNA and Bartylla's DNA. Using the "product rule," she testified that among unrelated people in the world, it was likely that the DNA recovered from the Pelto crime scene would match only one person.³

There was also testimony that Bartylla's mother lived in Maple Grove at the time of the murder, that McCullum had never heard of Bartylla before being notified by the police that Bartylla was a suspect, that McCullum had no reason to believe Pelto knew Bartylla before her murder, that a woman who was dating Bartylla at the time of Pelto's murder lived with her parents in Maple Grove, that Bartylla visited the parents' home, which was approximately 400 yards from Pelto's home, and that he sometimes slept in the woman's car in her parents' driveway.

At the request of the State, the court admitted evidence of Bartylla's 2004 burglary conviction. The victim, a 40-year-old female school teacher who lived alone with her dog, testified that she returned to her home in Elk River, Minnesota, around midnight on

³ Pursuant to the product rule, "the probability of a random match at each loci is multiplied together." *State v. Roman Nose*, 667 N.W.2d 386, 393 n.3 (Minn. 2003). The resulting number is the frequency with which the tested profile would occur in various populations. *United States v. Jenkins*, 887 A.2d 1013, 1018 (D.C. Cir. 2005).

August 27, 2003. She testified that she fell asleep on the couch in the living room and did not believe that she had left any doors or windows open. The next thing she remembers is waking up and not being able to see. She knew she had been injured but had no memory of what happened. She was airlifted by helicopter to the hospital, where she remained for 4 days. She sustained several injuries to the face, including the shifting over of her entire face, damage to the root beds of her teeth, a scar at the back of her neck, severe vertigo, bruises and abrasions on her face, and damage to her ears. Her eyes were swollen shut. The teacher testified that she was not aware of anything having been taken from her house and that she did not know and had not previously had any contact with Bartylla. Finally, there was testimony that the teacher's blood was found on Bartylla's clothes at the time of his arrest.

The only defense witness to testify was Dr. Laurence Mueller, a population geneticist whose testimony focused on the DNA evidence. He testified that there is a debate in the scientific community regarding the reliability of the methods used to interpret the statistical significance of DNA evidence in cold hit cases. According to Dr. Mueller, the chance of a coincidental match is elevated in cold hit cases, and therefore the product rule should not be used. Dr. Mueller identified three competing schools of thought on the proper way to express the statistical significance of DNA matches in cold hit cases,⁴ but he was aware of no experts in the field who would support using the

⁴ The first method put forth is the method advocated in 1992 by the National Research Council (NRC). That method requires that the DNA loci used to search the DNA database for a match not be included in the calculation of the probability of the
(Footnote continued on next page.)

product rule to express the statistical significance of a match in a cold hit case. Dr. Mueller did not calculate how the alternative methods of presenting the statistical significance would change the DNA match probability in this case. Nor did Bartylla seek to counter the State's use of the product rule by offering statistical evidence based on any of those alternative methods. On cross, Dr. Mueller did, however, acknowledge that there was a match between the DNA profile from the Peltó crime scene and the profile taken from Bartylla. He also testified that the fact that no match was found in the DNA database for a 3-year period suggests "something about that rarity" of the match.

Bartylla exercised his Fifth Amendment right not to testify at his trial. The jury found him guilty of murder in the first degree while committing or attempting to commit criminal sexual conduct in the first or second degree. The trial court sentenced Bartylla to life imprisonment. This direct appeal followed.

(Footnote continued from previous page.)

resulting match. The second method was recommended in 1996 by the NRC for situations involving DNA database hits. The NRC recommended that in such situations the frequency of a DNA match as calculated by the product rule should be multiplied by the number of people in the database searched. This method has been endorsed for database matches by the DNA Advisory Board. *See* DNA Advisory Board, *Statistical and Population Genetics Issues Affecting the Evaluation of the Frequency of Occurrence of DNA Profiles Calculated From Pertinent Population Database(s)*, 2 Forensic Science Communications (July 2000), available at <http://www.fbi.gov/hq/lab/fsc/backissu/july2000/dnastat.htm>. The final method is called the Bayesian approach. The Bayesian approach factors in the mathematical significance of the people who are excluded by the database trawl.

I.

We first address Bartylla's argument that Minn. Stat. § 609.117 (2002) violates the Fourth Amendment's prohibition against warrantless, suspicionless searches. In 2002, Minn. Stat. § 609.117 provided that

[t]he court shall order an offender to provide a biological specimen for the purpose of DNA analysis as defined in section 299C.155 when: (1) the court sentences a person charged with violating or attempting to violate any of the following, and the person is convicted of that offense or of any offense arising out of the same set of circumstances: . . . (ix) burglary under section 609.582, subdivision 1.

Minn. Stat. § 609.117, subd. 1. The legislature amended the statute in 2005. *See* Act of June 2, 2005, ch. 136, art. 12, § 9, 2005 Minn. Laws 901, 1064-66. It now applies to all felony convictions. *See id.*; Minn. Stat. § 609.117, subd. 1(1) (2006).

The constitutionality of a statute is a question of law that we review *de novo*. *Soohoo v. Johnson*, 731 N.W.2d 815, 821 (Minn. 2007). We exercise the power to declare a law unconstitutional “only when absolutely necessary in the particular case and then with great caution.” *Id.* (internal quotation marks omitted). It is presumed that, in enacting the statute, the legislature did not intend to violate either the U.S. Constitution or the Minnesota Constitution. Minn. Stat. § 645.17(3) (2006). Therefore, we will uphold a statute unless the challenging party demonstrates that it is unconstitutional beyond a reasonable doubt. *Hamilton v. Comm’r of Pub. Safety*, 600 N.W.2d 720, 722 (Minn. 1999).

Bartylla argues that because taking a sample of his DNA pursuant to section 609.117 is not permitted by any exception to the Fourth Amendment and does not meet

the “special needs” test for warrantless searches first articulated by Justice Blackmun in *New Jersey v. T.L.O.*, 469 U.S. 325, 351 (1985) (Blackmun, J., concurring), the search was unreasonable. Alternatively, he asserts that the search was unreasonable even under a totality-of-the-circumstances balancing test. The State argues that courts have consistently upheld similar federal and state statutes against constitutional challenges. While the State contends that the totality-of-the-circumstances analysis is the proper one, it argues that Minn. Stat. § 609.117 “passes constitutional muster” under either the special needs or the totality test.

“The touchstone of our analysis under the Fourth Amendment is always the reasonableness in all circumstances of the particular governmental invasion of a citizen’s personal security.” *Pennsylvania v. Mimms*, 434 U.S. 106, 108-09 (1977). Ordinarily, the reasonableness of a search depends on governmental compliance with the Warrant Clause, which requires authorities to demonstrate probable cause to a neutral magistrate and thereby convince him or her to provide formal authorization to proceed with a search by issuance of a particularized warrant. *See United States v. U.S. Dist. Court (Keith)*, 407 U.S. 297, 315-16 (1972). “However, the general rule of the Warrant Clause is not unyielding.” *United States v. Kincade*, 379 F.3d 813, 822 (9th Cir. 2004) (en banc) (plurality opinion).

Using a totality-of-the-circumstances test that balances the state’s interests against the intrusion into the citizen’s personal security, the United States Supreme Court has carved out a number of exceptions to the Warrant Clause. *See Chimel v. California*, 395 U.S. 752, 762-63 (1969) (concluding that a warrantless search of a suspect’s home

conducted incident to an arrest is reasonable if restrained to the area within the immediate control of the suspect); *Terry v. Ohio*, 392 U.S. 1, 27 (1968) (holding a police officer may stop and frisk a person without probable cause if the officer has reasonable suspicion that the person may be armed). *United States v. Knights*, 534 U.S. 112, 118 (2001) (applying totality of the circumstances to uphold search of probationer's apartment based on reasonable suspicion). The Court has also recognized the validity of suspicionless searches in exempted areas like airports, *see Chandler v. Miller*, 520 U.S. 305, 323 (1997), and prison cells, *Hudson v. Palmer*, 468 U.S. 517, 525-26 (1984); in "closely regulated" industries, *New York v. Burger*, 482 U.S. 691, 702 (1987); and when the government has a "special need" that is unrelated to general law enforcement, *New Jersey v. T.L.O.*, 469 U.S. 325, 353 (1985) (Blackmun, J., concurring).

The Supreme Court recently applied the totality-of-the-circumstances test to carve out an exception allowing suspicionless searches of convicts who are on parole, as long as the searches are not arbitrary, capricious, or harassing. *Samson v. California*, 547 U.S. 843, 848-56 (2006). Both before and after the Court's decision in *Samson*, federal circuit courts considering whether DNA samples obtained pursuant to a DNA profiling statute were obtained in violation of the Fourth Amendment have split on whether the issue should be analyzed as a logical extension of the Court's holding in *Knights* or whether it should be analyzed under the special needs test, which allows a suspicionless search when the search serves a non-law enforcement need and the government's needs behind the search outweighs the privacy interest invaded. Although the federal circuit courts are split on which test to apply, they have uniformly held that DNA samples obtained

pursuant to a DNA profiling statute were not obtained in violation of the Fourth Amendment. *See United States v. Amerson*, 483 F.3d 73, 78 n.3 (2d Cir.) (“All the federal circuits that have considered the question have upheld the state and federal DNA indexing laws, as have the overwhelming majority of district courts and state courts.”), *cert. denied*, ___ U.S. ___, 128 S. Ct. 646 (2007).

The majority of circuits have applied a totality-of-the-circumstances balancing test before coming to their conclusions. *See Wilson v. Collins*, 517 F.3d 421, 427 (6th Cir. 2008); *United States v. Kriesel*, 508 F.3d 941, 946-47 (9th Cir. 2007); *United States v. Weikert*, 504 F.3d 1, 11 (1st Cir. 2007); *Banks v. United States*, 490 F.3d 1178, 1184 (10th Cir. 2007); *United States v. Kraklio*, 451 F.3d 922, 924 (8th Cir.), *cert. denied*, ___ U.S. ___, 127 S. Ct. 611 (2006); *Johnson v. Quander*, 440 F.3d 489, 496 (D.C. Cir.), *cert. denied*, ___ U.S. ___, 127 S. Ct. 103 (2006); *United States v. Sczubelek*, 402 F.3d 175, 184 (3d Cir. 2005); *Padgett v. Donald*, 401 F.3d 1273, 1278 n.4 (11th Cir. 2005); *Groceman v. U.S. Dep’t of Justice*, 354 F.3d 411, 413 (5th Cir. 2004) (per curiam); *Jones v. Murray*, 962 F.2d 302, 307 & n.2 (4th Cir. 1992). For example, in *United States v. Kincade*, 379 F.3d 813, 839 (9th Cir. 2004) (en banc) (plurality opinion), the court applied the totality-of-the-circumstances test and concluded that the governmental interest served in collecting DNA outweighed the minimal intrusion into a conditional releasee’s privacy. Thus, it found that the conditional releasee’s expectation of privacy is limited. *Id.* at 833-34. In doing so, the circuit court noted “the well-established principle that parolees and other conditional releasees are not entitled to the full panoply of rights and protections possessed by the general public.” *Id.* at 833; *see also State v. Anderson*, 733 N.W.2d

128, 139 (Minn. 2007) (stating that a probationer’s “reasonable expectation of privacy was diminished merely by virtue of his status as a probationer”). The court further noted that the restriction of an offender’s rights is meant to rehabilitate the offender while protecting the public, which “ ‘require[s] and justif[ies] the exercise of supervision to assure that the restrictions are in fact observed.’ ” *Kincade*, 379 F.3d at 824 (quoting *Griffin v. Wisconsin*, 483 U.S. 868, 875 (1987)). The court identified the following governmental interests as compelling: ensuring a releasee’s compliance with the terms of release, reducing recidivism, and helping bring closure to victims of unsolved crimes. *Id.* at 838-39. The court noted that these “monumental” interests “are intimately related to the core purposes of conditional release: rehabilitating convicted offenders and sheltering society from future victimization.” *Id.* at 839.

The *Kincade* court explained that the intrusion into a conditional releasee’s privacy is minimal for two reasons. First, offenders lose “ ‘any legitimate expectation of privacy in the identifying information derived from blood sampling.’ ” *Id.* at 837 (quoting *Rise v. Oregon*, 59 F.3d 1556, 1560 (9th Cir. 1995)). Acknowledging that there are concerns over genetic information beyond the identification information that may be derived from DNA samples, *id.* at 836-37, the court nonetheless concluded that the rift between an offender and society is so “severe and fundamental” that it,

along with the government’s concomitantly greater interest in closely monitoring and supervising conditional releasees, is in turn sufficient to sustain suspicionless searches of his person and property even in the absence of some non-law enforcement “special need”—at least where such searches meet the Fourth Amendment touchstone of reasonableness as gauged by the totality of the circumstances.

Id. at 835.

The Second and Seventh Circuits have applied the special needs test. *See United States v. Amerson*, 483 F.3d 73, 78 (2d Cir.), *cert. denied*, ___ U.S. ___, 128 S. Ct. 646 (2007); *United States v. Hook*, 471 F.3d 766, 773 (7th Cir. 2006), *cert. denied*, ___ U.S. ___, 127 S. Ct. 2081 (2007). That test requires a court to first determine whether the asserted governmental interest serves a non-law enforcement special need. *Amerson*, 483 F.3d at 80-83. If it does, then the court balances the special need against: “(1) the nature of the privacy interest involved; (2) the character and degree of the governmental intrusion; and (3) the nature and immediacy of the government’s needs, and the efficacy of its policy in addressing those needs.” *Id.* at 81, 83-84. The *Amerson* court first determined that a DNA-indexing statute serves a non-law enforcement special need in helping to solve crimes. *Id.* at 81-83. Next, the court balanced the “special need” against the offender’s privacy interests. *Id.* at 83. Under the first factor of the test, the court concluded that probationers have diminished but extant privacy expectations. *Id.* at 84. As for the second factor, the court noted that methods used for obtaining DNA samples are minimally invasive.⁵ *Id.* at 84-85. Regarding the third factor, the court stated that “the government has a compelling interest in rapidly and accurately solving crimes and that DNA-based records of the identity of as many people as possible, and especially past offenders, effectuates this interest.” *Id.* at 87. The court concluded that the government’s

⁵ The court was specifically referring to obtaining DNA from an individual by using buccal cheek swabs or the drawing of blood.

interests greatly outweighed the probationers' reduced privacy expectations and therefore held the DNA Act did not violate the Fourth Amendment. *Id.* at 89.

State courts considering the constitutionality of DNA profiling statutes requiring offenders to submit a DNA sample have also used either the totality-of-the-circumstances test or the special needs test. *See, e.g., Polston v. State*, 201 S.W.3d 406, 410 (Ark. 2005) (balancing test); *Gaines v. State*, 998 P.2d 166, 172 (Nev. 2000) (balancing test); *State v. O'Hagen*, 914 A.2d 267, 277 (N.J. 2007) (special needs test); *State v. Scarborough*, 201 S.W.3d 607, 618 (Tenn. 2006) (balancing test); *State v. Martin*, __ A.2d __, 2008 WL 1914658 (Vt. May 2, 2008) (special needs test); *Doles v. State*, 994 P.2d 315, 319 (Wyo. 1999) (balancing test). Invariably, those courts have upheld the DNA profiling statutes at issue, concluding that they do not violate the Fourth Amendment. *O'Hagen*, 914 A.2d at 273 (noting unanimity among appellate courts in sustaining the constitutionality of DNA statutes); *see also People v. Garvin*, 847 N.E.2d 82, 90 (Ill.) (concluding that the outcome is "the same under either test"), *cert. denied*, __ U.S. __, 127 S. Ct. 359 (2006).

We read *Samson v. California*, 547 U.S. 843 (2006), to suggest that under a totality-of-the-circumstances test, a warrantless, suspicionless collection of a convict's DNA pursuant to Minn. Stat. § 609.117 does not violate the Fourth Amendment. Applying the totality-of-the-circumstances test to the facts of this case, we conclude that, as a result of his felony burglary conviction, the warrantless, suspicionless taking of Bartylla's DNA pursuant to Minn. Stat. § 609.117 for purposes of placing his DNA profile into the state-mandated database did not violate the Fourth Amendment's prohibition against unreasonable searches and seizures. An incarcerated prisoner such as

Bartylla has an even lower expectation of privacy than does a probationer, parolee, or conditional releasee. *See Samson*, 547 U.S. at 850; *Hudson v. Palmer*, 468 U.S. 517, 524 (1984). Moreover, the physical intrusion involved in acquiring the DNA sample from Bartylla was minimal.⁶

The State's interests here include exonerating the innocent, deterring recidivism, identifying offenders of past and future crimes, and bringing closure for victims of unsolved crimes. The State's interests are substantial, and when balanced against Bartylla's expectations of privacy and the minimal intrusion involved, we conclude that the collection of Bartylla's DNA pursuant to Minn. Stat. § 609.117 did not violate his Fourth Amendment rights.

II.

We turn now to Bartylla's claim that Minn. Stat. § 609.117 violates Article I, Section 10, of the Minnesota Constitution, which provides that

[t]he right of the people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures shall not be violated; and no warrant shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched and the person or things to be seized.

⁶ Our conclusion that the physical intrusion involved in acquiring the DNA sample from Bartylla for purposes of identification was minimal should not be read as suggesting that we would consider an intrusion into Bartylla's body to obtain DNA for purposes other than identification to also be minimal or that such an intrusion would not violate the Fourth Amendment. Those are questions not presented by this case, and therefore we do not address them here.

Minn. Const. art. I, § 10. Bartylla contends that, although the state constitution's ban on unreasonable searches and seizures is textually identical to the Fourth Amendment, Minnesota is more protective of its citizens' rights.

“Looking to the state constitution as an independent basis for individual rights is a task we approach ‘with restraint and some delicacy,’ especially when the right at stake is guaranteed by identical or substantially similar language in the federal constitution.” *State v. Anderson*, 733 N.W.2d 128, 140 (Minn. 2007) (quoting *Kahn v. Griffin*, 701 N.W.2d 815, 828 (Minn. 2005)). Furthermore,

when we interpret Article I, Section 10 of the Minnesota Constitution, decisions of the Supreme Court interpreting the Fourth Amendment are persuasive, although not compelling, authority. However, we are free to interpret the Minnesota Constitution as affording greater protection against unreasonable searches and seizures than the United States Constitution, but do not do so cavalierly.

In re Welfare of B.R.K., 658 N.W.2d 565, 577 (Minn. 2003) (citation omitted). We have said that we will independently apply the state constitution

“when we conclude that the United States Supreme Court has made a sharp or radical departure from its previous decisions or approach to the law and when we discern no persuasive reason to follow such a departure. We will also apply the state constitution if we determine that the Supreme Court has retrenched on Bill of Rights issues, or if we determine that federal precedent does not adequately protect our citizens' basic rights and liberties.”

Anderson, 733 N.W.2d at 140 (quoting *Kahn*, 701 N.W.2d at 828). Here, we conclude that the *Samson* totality-of-the-circumstances test we adopt today is neither a sharp nor radical departure from the Court's previous decisions or approach to the law. Further, we do not believe that the *Samson* approach reflects a retrenchment on the Bill of Rights.

Finally, on the precise issue before us in this case, we are satisfied that the protections adopted by the federal courts provide adequate protection for the basic rights and liberties of Minnesota's citizens. Therefore, we decline, in this case, to interpret Article I, Section 10, of the Minnesota Constitution more broadly than the Fourth Amendment. Because we have concluded that the collection of DNA samples pursuant to Minn. Stat. § 609.117 does not violate the Fourth Amendment of the United States Constitution, we also conclude that such collections do not violate Article I, Section 10, of the Minnesota Constitution.

III.

We next address Bartylla's argument that the trial court erred when it permitted the State's expert witness to express the probability of the match between his DNA profile and that of the unknown profile from the Peltó murder scene using the product rule without first holding a *Frye-Mack* hearing. Bartylla argues that whether a "cold hit" DNA match requires a different statistical interpretation than the product rule is a novel scientific question that should have been addressed at a *Frye-Mack* hearing. The State responds that the product rule properly expresses the probability statistics in cold hit cases. In making this argument, the State contends that the relevant question, as determined by the trial court, is how frequently a DNA profile is expected to occur in the

world's population, which the product rule addresses, not "how often a particular DNA profile is expected to occur in a DNA database."⁷

For evidence based on "new scientific techniques" to be admissible, the proponent of the evidence must show that (1) "experts in the field widely share the view that the results of scientific testing are scientifically reliable" and (2) "the particular evidence derived from the technique and used in an individual case must have a foundation that is scientifically reliable," that is, "the laboratory conducting the tests in the individual case complied with appropriate standards and controls." *State v. Roman Nose*, 649 N.W.2d 815, 818-19 (Minn. 2002).

Bartylla contends that the expression of the statistical significance of DNA matches in cold hit cases is "a new scientific technique" that requires a *Frye-Mack* hearing because it has not been shown that the product rule is generally accepted in the scientific community for use in such cases. Bartylla does not claim that scientists disagree about the science or mathematics underlying the product rule or that scientists disagree that the product rule accurately answers the question of what is the probability of

⁷ DNA, a long, double-stranded molecule, is found in chromosomes in cell nuclei. It is found in all cells that have a nucleus. Most sections of DNA vary little among individual human beings. Polymorphic sections, however, do vary. If two fragments do not match, then they could not share a common source, but if they do match, then they may have a common source. The underlying theory of forensic use of DNA profiles is that as the number and variability of the polymorphisms used in the typing procedure increases, the odds of two people having the same profile decrease[].

State v. Roman Nose, 649 N.W.2d 815, 821 n.6 (Minn. 2002).

a match in the general population. He does claim, however, that the probability of a match in the general population answers the wrong question and that the question that should be asked is what is the probability of a match in the DNA database. He argues that the product rule does not answer that question because it fails to account for the increased likelihood of a coincidental match that grows as the size of the database search grows. During pretrial proceedings, Bartylla put forth three alternative methods which he considered more appropriate for expressing that significance. Although Bartylla put forth these three methods, he did not advocate for or move the trial court to adopt any one of the three methods. Nor does he do so here. Declining to hold a *Frye-Mack* hearing, preclude use of the product rule, or require use of one of the other methods, the trial court found that, while there may be more than one way to express the statistical significance of the DNA match in cold hit cases, those methods do not involve issues of scientific technique requiring a *Frye-Mack* hearing.

We agree that, while there may be more than one way of expressing the statistical significance in cold hit cases, those different methods do not involve issues of scientific technique and no *Frye-Mack* hearing was required. As long as it is clear that the expert witness's response at trial about the probability of the DNA match answers the question asked, there is no error. Here, the question was, essentially, "What is the probability of the match in the general population?" The product rule expert properly answered that question. Bartylla does not contend that the product rule statistics used here were either inaccurate or answered a question other than the probability of a match in the general population. In essence, his contention is that a different question should have been

asked—how often the DNA profile would be expected to appear in a database the size of the one in which his profile was included. Interestingly, although Bartylla’s expert witness discussed the other questions that, in his opinion, could be asked when addressing a cold hit database match, the expert did not answer any of those questions. Thus, we conclude that it was not error for the court to allow the State to use the product rule at trial to express the statistical significance of the match between Bartylla’s DNA profile and that of the DNA profile found at the Pelto crime scene.

IV.

We next consider whether the trial court erred in admitting evidence of Bartylla’s burglary conviction at Bartylla’s murder trial. We review a court’s evidentiary rulings for abuse of discretion. *State v. Kennedy*, 585 N.W.2d 385, 389 (Minn. 1998). A defendant appealing the admission of evidence has the burden to show it was erroneous and prejudicial. *Id.*

Generally, evidence is admissible only if it is relevant. Minn. R. Evid. 402. Evidence of a defendant’s other crimes are not admissible to prove the defendant’s character for committing crimes. Minn. R. Evid. 404(b). Such evidence, often referred to as *Spreigl* evidence, may be admissible to show motive, intent, absence of mistake, identity, or common plan or scheme. *State v. Gomez*, 721 N.W.2d 871, 877 (Minn. 2006); *see State v. Spreigl*, 272 Minn. 488, 139 N.W.2d 167 (1965); Minn. R. Evid. 404(b). Under the common plan or scheme exception, other-crimes evidence is admissible if it has a “marked similarity in modus operandi to the charged offense” that

tends to corroborate evidence of the charged offense. *State v. Ness*, 707 N.W.2d 676, 688 (Minn. 2006).

For *Spreigl* evidence to be admissible, the State must first provide notice of its intent to use the evidence. *Id.* at 686. The State must also clearly indicate what the evidence is being offered to prove. *Id.* In addition, there must be clear and convincing evidence that the defendant was involved in the other crime or bad act, the evidence must be relevant and material to the State's case, and the probative value of the evidence must not be outweighed by the potential for unfair prejudice to the defendant. *Id.* If it is "a close call" whether the evidence should be admitted, the trial court should exclude it. *Id.* at 685.

Bartylla contends that his conviction for the burglary of the school teacher's home was not relevant to prove his identity as the perpetrator of Pelto's rape and murder. He claims that because the burglary did not involve a sexual assault, it was "strikingly dissimilar" to Pelto's assault. He further argues that in light of the DNA evidence admitted against him, the admission of evidence related to the burglary conviction resulted in unfair prejudice that outweighed any probative value the evidence may have had. In addition, he argues that there was "a reasonable possibility" that the admission of evidence relating to the burglary conviction significantly affected the verdict because there was "disagreement over the statistical significance of the DNA match" elicited from the experts at trial.

The State offered evidence at Bartylla's trial relating to the assault that occurred during the 2003 burglary to prove identity, absence of mistake, and common scheme or

plan. On appeal, the State first argues that the burglary and assault of the school teacher and the rape and murder of Peltó are “substantially similar in time and modus operandi,” based on the following facts: only 10 months separated the two crimes, both crimes involved entry into homes through unlocked doors and assaults on women home alone, the assaults included severe beatings with fists primarily on the right sides of the women’s faces and heads, and neither crime included theft. The State also contends that evidence relating to the conviction was probative on the issue of identity because, while the DNA evidence was compelling, it was also circumstantial, not dispositive, and subject to Bartylla’s expert’s questioning. The State also points out that the admission of evidence of other crimes has been upheld in other cases involving DNA evidence. Finally, the State argues that if evidence relating to the conviction was admitted in error, the error was harmless.

There is no argument here that the State did not give Bartylla notice of its intent to introduce evidence of his burglary and assault of the school teacher or inform him of the purpose for which that evidence was to be used. Nor is there any contention that Bartylla’s involvement in the burglary was not shown by clear and convincing evidence. Therefore, we are left to consider whether the evidence relating to the burglary was relevant and material to the State’s case and whether the probative value of that evidence was outweighed by the potential for unfair prejudice to Bartylla. *Ness*, 707 N.W.2d. at 686.

The trial court explained in some detail on the record its rationale for admitting the evidence relating to the burglary conviction. With respect to relevance, the court found

that the assaults on Pelto and the school teacher were 10 months apart and that there was a “close relationship in terms of modus operandi.” The trial court also found that: (1) both incidents involved entering a woman’s home without consent through a door that had been inadvertently left open; (2) “both incidents involve[d] a woman home alone late at night”; (3) “[i]n both cases, the assaults occurred sometime after midnight”; (4) neither of the incidents appears to have been motivated by theft; (5) both victims were strangers to Bartylla; and (6) both victims were severely beaten, resulting in “broken and fractured facial bones.” The trial court also found that the probative value of the evidence outweighed its potential for unfair prejudice because the State’s case was based on circumstantial evidence and the DNA evidence was “certainly not dispositive” and was “subject to alternative explanations.”

The central issue in this case was the identity of Pelto’s killer. While DNA evidence implicated Bartylla, the evidence as suggested by Dr. Mueller’s testimony was subject to alternative explanations and was therefore not dispositive. The burglary evidence is probative with respect to identity and common scheme or plan because of the marked similarity between the facts underlying the burglary and the facts underlying Pelto’s murder. Although the evidence relating to the burglary may have painted a poor picture of Bartylla when balanced against its probative value, we conclude that it did not unfairly prejudice him. In addition, the trial court gave two cautionary instructions to the jury about the use of the evidence, one immediately before the evidence was presented and one as part of the jury instructions. We have stated that a cautionary instruction “lessen[s] the probability of undue weight being given by the jury to the evidence.”

Kennedy, 585 N.W.2d at 392. Thus, any potential unfair prejudice was mitigated by the cautionary instructions. Therefore, we conclude that the trial court did not abuse its discretion in admitting evidence relating to Bartylla's burglary conviction.

V.

Finally, Bartylla raises 14 claims of error in his pro se supplemental brief. As best as we can determine from that brief, he asserts that: (1) he received ineffective assistance of counsel because he was not allowed to call witnesses at trial, counsel failed to move for a lesser included charge, counsel did not attempt to negotiate a lesser charge, and Bartylla was not "given a discovery of the case"; (2) the jury selection was prejudicial because it was not a jury of Bartylla's peers and one juror was dismissed because he did not have the proper level of education; (3) the legality of the confirmatory DNA sample taken from Bartylla in 2005 was not addressed; (4) the State's witnesses lied about and threatened the other suspects; (5) counsel decided not to call a witness that "could have spoken on the Appellant's behalf"; (6) "[t]he detective's shallow knowledge of DNA should have disallowed him from testifying on DNA"; (7) there was "unlawful character assassination" of Bartylla at the trial by "badgering the Appellant and his name" and by stating "that the Appellant is a convicted killer and has the M.O. of a killer"; (8) counsel did not move for credit for time served since 2003; (9) counsel did not move for a lesser charge of second-degree murder, manslaughter, or involuntary manslaughter; (10) "[p]rejudicial detectives working in collaboration with witnesses and others while still entering the open crime scene until 2006"; (11) due to counsel's ineffective assistance, Bartylla was not allowed to testify regarding the prejudice under claim 10;

(12) counsel did not challenge the time or cause of death; (13) the detectives investigating the crime scene were prejudiced by their personal involvement as friends and neighbors of witnesses in the case; and (14) the judge made an “unfair ruling” during and after the trial. Each of these assertions lacks either an argument to support it or citations to legal authority or both.

We will not consider pro se claims on appeal that are unsupported by either arguments or citations to legal authority. *See State v. Krosch*, 642 N.W.2d 713, 719 (Minn. 2002) (deeming arguments set out in the defendant’s pro se supplemental brief waived because “[t]he brief contain[ed] no argument or citation to legal authority in support of the allegations”); *see also Loudon v. Loudon*, 221 Minn. 338, 339, 22 N.W.2d 164, 166 (1946) (“An assignment of error based on mere assertion and not supported by any argument or authorities in appellant’s brief is waived and will not be considered on appeal unless prejudicial error is obvious on mere inspection.”). Because Bartylla’s pro se arguments are lacking in supportive arguments and/or legal authority, and because no prejudicial error “is obvious on mere inspection,” we deem Bartylla to have waived his pro se claims.

Affirmed.

MAGNUSON, C.J., not having been a member of this court at the time of the argument and submission, took no part in the consideration or decision of this case.