TESTING SEXUAL ORIENTATION

A Scientific and Legal Analysis of Plethysmography in Asylum & Refugee Status Proceedings

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ORAM – Organization for Refuge, Asylum & Migration
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_The contributors’ commitment to excellence and to refugee justice is our continuing inspiration!_

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ABOUT ORAM

ORAM – Organization for Refuge, Asylum & Migration is an international not-for-profit organization conducting international and domestic advocacy, research, education, and legal representation on behalf of refugees fleeing sexual and gender-based violence. Headquartered in San Francisco, California, U.S.A., ORAM is the leading non-governmental organization worldwide on issues concerning lesbian, gay, bisexual, transgender, and intersex (LGBTI) asylum seekers and refugees.

ORAM serves the international refugee community through education, advocacy, legal counseling, and resettlement assistance. Free-of-charge legal representation is provided to clients through the creative marriage of modern technology and legal expertise. In partnership with other NGOs, government agencies, and community-based organizations, ORAM supports and empowers individual refugees in their effort to find safety from persecution.

ORAM also works to increase awareness of and raise international protection standards for these vulnerable refugees by collaborating with the United Nations High Commissioner for Refugees (UNHCR) and other inter-governmental organizations, governments, including the U.S. Department of State, as well as LGBTI community groups and refugee advocacy organizations.

Further information about ORAM is available at www.oraminternational.org.
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1. EXECUTIVE SUMMARY

Phallometry, a mechanical attempt to measure sexual arousal, has been applied in the refugee status determination context to ascertain the sexual orientation of males seeking asylum based on homosexuality. Physically invasive and scientifically questionable, phallometry has been rejected and doubted by courts, scientists and advocates as a severely flawed tool at best and an abuse of human rights at worst. The ultimate result of phallometric testing can be the rejection of a valid asylum claim, leading to deportation to a country where a refugee faces serious harm up to and including execution.

Penile phallometry, also called “penile plethysmography” or “PPG” is an attempt to scientifically quantify male sexual arousal by measuring physiological responses to visual stimuli through attachment of electrodes to the penis. In the Czech Republic, men who request asylum based on homosexuality may be subjected to this test to verify their claim. Applicants who decline this examination may be denied refugee protection. The counterpart of PPG used on women is “vaginal photoplethysmography” or “VPG.”

Experts cite numerous psychiatric, medical, and legal findings that phallometry is unreliable and impermissibly invasive. They note that phallometry fundamentally interferes with the right to privacy and fails to account for religious and cultural factors, which may be as integral to one’s identity as one’s sexual orientation. Application of phallometry in the refugee status determination context has been found to contravene the basic human rights of asylum seekers fleeing persecution based on sexual orientation, including the right to be free from cruel, inhuman and degrading treatment; the right to privacy; and the right to be protected from medical abuses. In this vein, the procedure has been found to violate Article 3 of the European Convention on Human Rights’ prohibition of cruel, inhuman, and degrading treatment, and its use has been found to effectively prevent access to asylum. To compel an already vulnerable asylum seeker to undergo a physically invasive procedure is highly troublesome, both legally and ethically.

Multiple scientific studies likewise cast doubt on the reliability of phallometry to accurately determine sexual orientation. A wide body of scientific work points to several uncontrolled variables in the application and testing of the method, including the ability of subjects to willfully generate physical responses to the visual stimuli which form the test’s focus. Phallometric testing has thus been shown to be a highly unreliable tool, and is especially inappropriate for dispositive application in the refugee status determination context.

Thus, the totality of evidence shows that phallometry is an unacceptable and ineffective tool that fails to fulfill fundamental requirements of effectiveness and human dignity. Accordingly, in the context of asylum procedures, its use should immediately be discontinued.

Targeted procedures and guidelines are urgently needed to help asylum decision-makers accurately evaluate the credibility of individuals claiming to be gay, lesbian or bisexual.
Resources must be allocated to the development and application of humane and reliable questioning and interviewing techniques, and to the thorough training of adjudicators in these techniques.

2. INTRODUCTION AND BACKGROUND

Although the persecution of lesbian, gay, bisexual, transgender, and intersex (LGBTI) persons is by no means a new phenomenon, the increased reporting and awareness of this widespread human rights abuse necessarily raises questions about the procedures used to evaluate refugee claims made by LGBTI individuals.

Those who are persecuted for their sexual orientation or gender identity sometimes succeed in escaping to other countries. Some of these individuals apply for refugee status or asylum. During the refugee status determination (“RSD”) or asylum interview, the adjudicator must, among other tasks, attempt to verify the sexual orientation or gender identity of the claimant in order to evaluate the veracity of the claim. Despite the increasing number of applications for protection based on sexual orientation and gender identity, no standard model or guidance exists for the interview of these asylum seekers. Refugee law professionals, human rights observers, and other stakeholders—including refugees themselves—have thus called with increasing alarm for a more objective means of assessing sexual orientation and gender identity.

In the Czech Republic, penile plethysmography (also known as “phallometry” or “PPG”) continues to be used on asylum seekers to confirm their homosexuality.¹ The rationale for the use of this method, and its counterpart for women, vaginal photoplethysmography (“VPG”), is that they purportedly provide an accurate assessment of applicants’ sexual response. In the asylum context, plethysmography is believed to obviate the need for an interview.²

This paper will describe the mechanics of the PPG and VPG tests, the contexts in which they have been applied, the extent to which legal bodies have accepted them, and the legal and ethical consequences of utilizing these examinations in the context of RSD.

From this discussion, it will be evident that this methodology not only constitutes a violation of the human rights of LGBTI individuals, but that it is scientifically unreliable, unethical, and inappropriate for use in the determination of the sexual orientation of persons seeking refugee protection.

3. SCOPE OF RESEARCH AND ANALYSIS

The jurisprudence on admissibility into evidence of PPG and VPG has largely been limited to Western Europe and the United States. Most of the literature and legal precedents

regarding these procedures does not relate to sexual orientation. This is because most of the focus to date has been on the methods’ application in the context of sex offenders and in diagnosing and treating particular sexual conditions.  

Many of the observations and findings cited in this paper are based on research conducted in the 1960s and 1970s, as little research has been done in the area since then. No scientific research has been conducted on the use of PPG and VPG in the context of RSD procedures. Thus, virtually all conclusions in this paper have been extrapolated from related fields. This is particularly so with regard to ethical considerations pertinent to LGBTI issues in the asylum context.

4. MECHANICS OF PENILE PLETHYSMOGRAPHY AND VAGINAL PHOTOPLETHYSMOGRAPHY

A plethysmograph is any instrument which measures changes in the size of organs or extremities resulting either from a change in internal blood flow or from the volume of surrounding air. The penile plethysmograph (PPG) and vaginal photoplethysmograph (VPG) measure these changes in the penis and vagina, respectively. 

The degree of privacy accorded to subjects of PPG and VPG varies. In some venues, examinations are conducted without the examiner in the room. In other contexts, minimal barriers, such as a curtain, separate the examiner and the examinee. No standard training exists for PPG and VPG examiners.  

4.1. Penile Plethysmography

Penile plethysmography (PPG) measures changes in the size of the penis. PPG examinations are conducting using one of two techniques: 1) the “volumetric method” and 2) the “circumferential method.”

In the volumetric method, a tube is placed around the penis, and the examinee is exposed to both audio and visual stimuli. As the examinee’s penis becomes erect or flaccid, the PPG measures the change in air volume within the tube (see Figure A). 

Two procedures exist for use in the circumferential method. The first of these involves placing a silicone ring filled with mercury around the base of the flaccid penis. The ring (see Figure B) is then connected to a machine that senses electrical current. As the ring expands,
the mercury in the ring thins and creates greater resistance against the current. The change in resistance from the flaccid penis (the baseline measurement) theoretically quantifies the extent of penile arousal. The second circumferential test employs a measuring device called the Electromechanical Strain Gauge. This test utilizes the same concept of measuring electrical resistance, accomplished through placement of a metal cuff around the penis (see Figure C).

4.2. VAGINAL PHOTOPLETHYSMOGRAPHY

Vaginal photoplethysmography (VPG) detects changes in the volume of blood in the vagina by measuring light absorption by the walls of the vagina and the vaginal pulse. The method utilizes a small acrylic probe similar in size to a menstrual tampon, which is inserted into the vagina (see Figure D). The woman being examined may conduct the insertion on her own. The probe emits a light and then measures the absorption of this light by the walls of the vagina. The more blood in the vaginal walls, the greater amount of light absorbed. Besides measuring the light absorption in the vagina, the VPG also differentiates the pulse of the vagina from the pulse of the heart. Measuring the vaginal pulse is another indicator of changes in vaginal engorgement. These two methods for detecting changes in blood volume within the vagina are considered strong indicators of sexual arousal.

5. CURRENT APPLICATIONS OF PLETHYSMOGRAPHY

Throughout the 20th century, plethysmography has been used in various fields including medicine, psychology, and criminal justice for an array of purposes. As will become evident, the mixed reception of the method reflects serious flaws in its reliability.

5.1. USE IN DIAGNOSIS AND TREATMENT OF SEXUAL CONDITIONS

Physicians and researchers have used both VPG and PPG examinations to diagnose and treat physiological and psychophysiological sexual conditions. For example, VPG has been used to help diagnose and treat dyspareunia, a condition defined by the American Psychological Association (APA) as “recurrent or persistent genital pain associated with sexual intercourse.” PPG has also been used to facilitate research on the cause of erectile dysfunction.

10 Janssen, supra note 9, at 251.
13 Williams & Smith, supra note 4, at 260.
15 See generally Wouda et al., supra note 11.
Researchers and physicians have also used plethysmography to learn about and treat sexual paraphilias, which are “recurrent, intense sexually arousing fantasies, sexual urges or behaviors generally involving (1) non-human objects, (2) the suffering or humiliation of oneself or one’s partner, or (3) children or other non-consenting persons, that occur over a period of six months.”

5.2. TREATMENT OF SEX OFFENDERS

When sexual paraphilias involve sex offenses, PPG and VPG have been used alongside other tools to create clinical profiles of subjects’ sexual interests and tendencies. Likewise, legal and psychosocial services sometimes utilize PPGs in the treatment of admitted or convicted sexual offenders. In contrast, both U.S. and Canadian courts have overwhelmingly rejected the use of plethysmography as a diagnostic tool to prove sexual deviancy or paraphilias.

5.3. EXTINGUISHING (“TREATING”) HOMOSEXUALITY

In the past, PPG examinations were used to “treat” (i.e., attempt to extinguish) homosexuality in conjunction with aversion therapy. Aversion therapy suppresses an “impulse” or response by causing the patient to associate the impulse or response with an aversive stimulus, often through infliction of pain with electric shock. Kurt Freund, the Czech physician who originally developed plethysmography to study and treat sexual deviances such as pedophilia, administered PPG as part of a Czech government program to “cure” gay men by administering a shock when they registered arousal to a stimulus considered to be homosexual. This use of plethysmography was based on the classification of homosexuality as a disorder subject to treatment. As is apparent throughout this paper, such attitudes have filtered down, informing plethysmography’s current applications.

20 ERICK JANSSEN, THE PSYCHOPHYSIOLOGY OF SEX 481 (2007). See also United States. v. Powers, 59 F.3d 1460, 1471 (4th Cir. 1995), acknowledging the evidence proffered by the U.S. government that penile plethysmography may be useful for treatment; Children’s Aid Society of the Region of Peel v. S.R.-T., [2003] OJ No 6141 (Can.), also accepting the expert’s testimony that phallometric testing may be useful for treating sex offenders. Both cases contrasted the possible utility of PPG for treatment with the unreliability for diagnosis or proof of culpability.
21 See Sections 6–7, infra.
23 DENNIS COON & JOHN O. MITTERER, INTRODUCTION TO PSYCHOLOGY: GATEWAYS TO MIND AND BEHAVIOR 505 (12th ed. 2010).
24 See also Section 5.1, supra.
25 Friedman, supra note 22.
26 See Section 7.4, infra.
6. PLETHYSMOGRAPHY REJECTED BY COURTS AS SCIENTIFICALLY NON-CREDIBLE EVIDENCE

United States courts have uniformly rejected the admissibility of plethysmographic results as potential evidence to show culpability in criminal sex offender cases. They have done so by applying either of two well-established evidentiary tests for the reliability of testimony of expert witnesses: the Frye test and the Daubert test.

6.1. REJECTION UNDER THE FRYE TEST

Under the Frye test of evidentiary admissibility, proponents of scientific evidence must establish that the theory and methodology used by their expert witnesses have gained “general acceptance” within the scientific community.27 In 1995, the U.S. Fourth Circuit Court of Appeals applied the Frye test and affirmed the lower court ruling that phallometric testing was not sufficiently reliable to admit as evidence. The Court cited in its finding the “extensive, unanswered evidence weighing against the scientific validity of the penile plethysmograph test.”28

6.2. REJECTION UNDER THE DAUBERT TEST

Following the Frye decision, the United States Supreme Court has held that cases to which the U.S. Federal Rules of Evidence apply, and in which scientific evidence is offered, are governed by Rule 702 of the Federal Rules of Evidence. That rule provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.29

Thus, in United States federal cases, the reliability of the expert witness’ principles and methods often forms the crux for determining whether testimony is admissible under Rule 702.

The Daubert test addresses the reliability of various principles and methods by building on the Frye test of general acceptance described above. Under the Daubert test, the court not only considers the extent to which the approach used is generally accepted by the scientific community, but also asks whether the proponent has met several additional factors: First,

27 See Frye v. United States, 293 F.1013, 1014 (D.C. Cir. 1923).
28 U.S. v. Powers, supra note 20, at 1471. See also Section 7.2, infra.
the relevant theory must be empirically testable and thus scientifically valid. Second, the approach must be peer reviewed. Third, the error rate must fall within acceptable bounds.\textsuperscript{30}

United States courts have rejected the use of plethysmographic evidence to prove culpability in sex offender cases under the \textit{Daubert} test—in particular, because of plethysmography’s failure to meet the test’s first prong on “scientific validity.”\textsuperscript{31} Of note, the Ninth Circuit Court of Appeals has observed that “courts are uniform in their assertion that the results of penile plethysmography are inadmissible as evidence because there are no accepted standards for this test in the scientific community.”\textsuperscript{32}

7. LACK OF SCIENTIFIC SOUNDNESS OF PLETHYSMOGRAPHY

Rejection by U.S. and Canadian courts\textsuperscript{33} of plethysmographic data on the basis of its unreliability reflects the flaws underlying the science of the examination. Proposed as an “objective” measure of sexual orientation, plethysmography fails to pass rigorous scrutiny of its methodology. Moreover, the research cited to support the use of plethysmography has been contaminated by both selection and experimenter biases that render its conclusions inapplicable to determining sexual orientation.

7.1. ABSENCE OF STANDARDIZATION OF CONDITIONS AND TERMS OF REFERENCE

Among the major flaws of plethysmography is the absence of standardization in various areas of its application and testing.

Severely hampering the examination’s predictive value, there are few concrete standards for the type or content of images to which examinees are exposed.\textsuperscript{34} This belies yet another basic flaw in the theory behind phallometry: Human sexual response is highly subjective and varied, and differences in that response are magnified cross-culturally and among different sexual orientations and gender identities.\textsuperscript{35} It is therefore impossible to develop a single, standardized set of images to accurately and objectively measure sexual response, particularly during plethysmographic testing.\textsuperscript{36}

\textsuperscript{31} See generally Section 7, infra.
\textsuperscript{32} See \textit{Doe ex. rel. Rudy-Glanzer v. Glanzer}, 232 F.3d 1258, 1266 (9th Cir. 2000).
\textsuperscript{33} See \textit{R. v. J.-L.J.} [2000] 2 S.C.R. 600 (Can.), in which the Supreme Court of Canada upheld a lower court’s decision to exclude expert testimony regarding the results of a penile plethysmograph, since “a level of reliability that is quite useful in therapy because it yields some information about a course of treatment is not necessarily sufficiently reliable to be used in a court of law to identify or exclude the accused as a potential perpetrator of an offence.”
\textsuperscript{36} See also Section 7.2.2, infra.
In any scientific test lacking controlled and standardized conditions, the results are necessarily inconsistent and lacking in scientific validity. Tests built on ill-defined terminology likewise lack validity. For these reasons, plethysmography fundamentally lacks a solid scientific basis.

### 7.2. Lack of Reliability of Plethysmographic Test Results

Strong evidence indicates that plethysmography test results are inherently unreliable. As a fundamental matter, there is a difference between mere physiological response and sexual arousal, bringing into serious question what the test actually measures.\(^{37}\) Similarly, men and women respond differently to visual stimuli, further confounding test results. Perhaps most importantly, examinees may be able to “trick” the testing mechanism by producing “faked” responses.\(^{38}\)

The highly variable significance of test results strongly suggests that plethysmography often does not measure that which the examiners intended. Yet where a false conclusion can mean the difference between life and death for an asylum seeker, all reasons are present to require heightened reliability of the test used.

#### 7.2.1. Differential Responses Between Males and Females

Numerous studies have shown that men and women respond differently to various aspects of images with sexual content. These studies suggest that while phalometry has some scientific value when applied to men, the tool is wholly unusable on women in the diagnostic context.

While men tend to respond more to the physical characteristics of the actors, women tend to respond to the types of activities being performed.\(^{39}\) Studies have likewise found that vaginal blood flow increases as sexual activity intensifies, regardless of whether the actors are of the woman’s gender of attraction or even whether the actors are human.\(^{40}\) In contrast, men respond exclusively to human stimuli, and characteristics such as gender of attraction have a greater influence on arousal.\(^{41}\) Heterosexual and homosexual men respond more strongly to images of their gender of attraction, whereas both heterosexual and homosexual women respond strongly to images of both genders.\(^{42}\)

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\(^{37}\) Ibid.  
\(^{38}\) See Section 7.2.3, infra.  
\(^{41}\) Ibid., at 118–19.  
\(^{42}\) Meredith L. Chivers, A Brief Review and Discussion of Sex Differences in the Specificity of Sexual Arousal, 20 SEXUAL & RELATIONSHIP THEORY 377–90 (2005).
Men also tend to have greater “appetitive” desires than women. This means that men fantasize about and experience a heightened genital response to sexual images involving unfamiliar sexual partners.\(^{43}\) Women tend not to exhibit arousal when exposed to images of strangers.\(^{44}\) Thus, lack of physical arousal by a woman to an image of a female stranger may mislead an examiner to conclude that the examinee is heterosexual. These factors render vaginal photoplethysmography highly unreliable as a measure of a woman’s sexual orientation.

### 7.2.2. Failure to Account for Emotional Components of Attraction

As shown above, use of phallometric testing in the asylum context presupposes that sexual attraction and sexual orientation are purely physiological phenomena. In particular, the approach fails to account for the complex role of emotions in sexual orientation and the variety of ways emotions affect sexual attraction. Photoplethysmographic testing likewise assumes that physiological responses map directly to sexual arousal and attraction. Yet it is now widely understood that sexual orientation refers not only to one’s capacity for sexual attraction but also to profound emotional and affectional attraction.\(^{45}\) Moreover, sexual arousal often does not correlate with emotional attraction, which comprises an important component of sexual orientation. Thus, the assumption that plethysmography correctly measures sexual orientation runs contrary to an accurate, nuanced understanding of the complexities of human behavior in general and of human sexuality in particular.

Test results among confirmed child sex offenders demonstrate the serious diagnostic shortcomings of plethysmography. Namely, some of these offenders have shown no response to corresponding images in phallometric examinations.\(^{46}\) These cases demonstrate that at least in the context of sexual child abuse, not all individuals exhibiting “deviant” sexual tendencies respond to “deviant” sexual stimuli. Conversely, nearly all “normal” men exhibit arousal on a penile plethysmograph to “deviant” sexually suggestive stimuli, even when the images in the examination depict children in sexually suggestive positions or even rape.\(^{47}\) Yet the vast majority of men do not commit sex offenses.

Moreover, research demonstrates that individuals show signs of arousal to most sexually suggestive images, regardless of the gender or activity depicted. In this regard, one study found that 80 percent of homophobic heterosexual men who reported having no


\(^{44}\) Ibid., at 550.


homosexual encounters showed greater arousal in response to homosexual images than heterosexual men who were not considered homophobic.\textsuperscript{48}

\subsection*{7.2.3. Failure to Detect Falsification of Physical Arousal}

Scientists have noted that in the application of plethysmography, a significant portion of males are able to “fake” or willfully achieve tumescence. One study by Kurt Freund himself found that nine percent of heterosexual male participants could fabricate tumescence in response to homosexual stimuli.\textsuperscript{49} The same study found that 25 percent of homosexuals showed signs of arousal to heterosexual stimuli.\textsuperscript{50}

These findings demonstrate that relying on phallometry as an “objective” test of sexual orientation can result in significant error, both in rejection of valid claims and in acceptance of false ones.

\subsection*{7.3. Subject Selection Bias in Testing of the Plethysmographic Method}

It is axiomatic in behavior statistics that to be scientifically valid, surveys purporting to reflect characteristics of the general population must be conducted randomly. Selection bias refers to scientific errors resulting from researching non-random samples of subjects. One type of selection bias, volunteer bias, occurs when those who choose to participate in a given survey are systematically different from (and therefore do not accurately represent) the non-volunteers.\textsuperscript{51} The literature on selection bias in studies on plethysmographic testing indicates that the method is highly suspect on this ground. In particular, serious concerns are implicated in applying results of such studies to asylum seekers, who come from societies that are often extremely averse to issues of differing sexual orientations and gender identities.

For example, one study examining the limits of “generalizability” of the results of laboratory tests on genital measures of female sexual response revealed a marked difference in the sexual histories, behaviors, and attitudes of subjects who volunteered to participate in an experiment employing VPG, from the corresponding measures of those who chose not to


\textsuperscript{49} Kurt Freund, \textit{A Laboratory Method for Diagnosing Predominance of Homo- or Hetero-Erotic Interest in Male, \textit{1 Behav., Res. & Ther. 85–93 (1963), cited in Myers, Evidence in Child Abuse, supra note 47. See also Grant T. Harris, Marnie E. Rice & Vernon L. Quinsey, \textit{Appraisal and Management of Risk in Sexual Aggressors: Implications for Criminal Justice Policy, 4 Psychol. Pub. Pol'y \\& L. 73–115, 79 (1998), finding that two out of five non-sex offender participants were able to significantly alter their normal responses when given an incentive to do so.}

\textsuperscript{50} Harris et al, supra note 49. See also Christopher Andrews, John E. Hartsell & Maureen Kohn, \textit{Debunking Penile Plethysmograph Evidence, 28 Reporter (Off. Judge Advoc. Gen.) 11–14, 11 (June 2001), referring to the test’s “susceptibility of faking” results.

\textsuperscript{51} A. J. Culver, \textit{The Dictionary of Health Economics} 542 (2d ed. 2010).
In the study, the researchers polled a random group of female students on personality and sexuality. They then presented the subjects with an opportunity to participate in a second experiment in which they would view sexually explicit videotapes while attached to a VPG device. Although the study’s authors acknowledged that some selection bias was already necessarily present in the VPG experiment because the subjects were volunteers from the larger pool of subjects, the authors nonetheless cited statistically significant differences in the sexual histories, attitudes, and behaviors of the volunteers. For example, a significantly greater portion of volunteers had experienced sexual trauma in the past than had non-volunteers. The study also found that the volunteers masturbated more frequently, had more exposure to commercial erotic materials, were exposed to these materials at an earlier age, and reported less sexual fear than non-volunteers.

An earlier study assessing the applicability of results from experiments using PPG to show sexual arousal in males also demonstrated significant differences between volunteers and nonvolunteers. The volunteers reported less guilt, less fear of sex, and more sexual experience than nonvolunteers. Moreover, volunteers were more likely to be Caucasian or of mixed heritage than Asian.

The subjects in the laboratory studies were found to be generally more comfortable and open about sexuality than those who chose not to participate. It is safe to assume that this difference in openness and comfort would be even more pronounced when comparing control groups to LGBTI asylum seekers, most of whom have fled from countries where issues of sexual orientation or gender identity are taboo. These findings highlight the pervasive and systemic selection bias which places in doubt the testing of plethysmography as a tool in general, and as a reliable measure of sexual orientation in particular.

These studies indicate that use of plethysmographic testing in the asylum and sexual orientation contexts is wholly inappropriate. This is particularly true in application to asylum seekers who are forced, or feel compelled, to undergo the testing to support their refugee claims.

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52 See Sharlene A. Wolchik, S. Lee Spencer & Iris S. Lisi, Volunteer Bias in Research Employing Vaginal Measures of Sexual Arousal, 12 ARCHIVES SEXUAL BEHAV. 399–408 (1983).
53 Ibid., at 402.
54 Ibid., at 405.
55 Ibid., at 403.
56 Ibid., at 403–405.
58 Wolchik, supra note 52, at 401.
59 Ibid.
60 See also Sections 8.2 and 8.4, infra.
7.4. EXPERIMENTER BIAS IN SCIENTIFIC RESEARCH ON PLETHYSMOGRAPHY AND HOMOSEXUALITY

Like selection bias, experimenter bias underlying research on plethysmography and homosexuality shows the potential risk of inaccurate results from such testing. The dominant psychological research regarding homosexuality and plethysmography was conducted in the 1960s and 1970s, a period during which the scientific community widely viewed homosexuality as a psychological disorder. Not surprisingly, much of the research conducted was informed by this assumption, thus infecting the prevailing hypotheses, the issues tested in the research conducted, the results obtained, and the analyses rendered.

Until 1973, homosexuality per se was characterized as a “mental disorder” in the widely-influential Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association.61 Beginning in 1973, the DSM omitted homosexuality per se as a disorder. Instead “sexual orientation disturbance” was presented as a condition to be “corrected” if it caused an individual distress.62 Only in 1987 was the DSM revised to remove homosexuality altogether. This change coincided with an emerging acceptance that the central problem surrounding differing sexual orientations is the discriminatory or condemnatory environment in which they exist.63

Thus, the plethysmography studies of the 1960s and 1970s (most of which were conducted in North America and Western Europe) were invariably subject to experimenter bias that homosexuality is a disorder requiring treatment. This bias in turn led experimenters to adhere to erroneous stereotypes, question subjects in a pejorative manner, and highlight negative findings in their reports. In addition to laying the foundations for flawed results, such discriminatory treatment is likely to have affected subjects’ performance during the testing.64

The experimenter biases ubiquitous in the studies of the 1960s and 1970s are no less a risk in present-day RSD proceedings relying on plethysmography. Conducting research on sexuality across diverse cultures exacerbates the methodological and conceptual difficulties informing the issues being tested,65 rendering cross-cultural research and testing nearly impossible to execute fairly. Moreover, refugee claims adjudicators are no less likely to subscribe to prejudicial cultural notions of sexual orientation and gender identity than the population at large. “Testing” asylum seekers’ sexual orientation through plethysmography necessarily assumes that the test designer or examiner knows what would, or should, arouse the person being tested. The lack of any systematic means of accounting for these parties’ biases is thus an inherent flaw in applying plethysmography to determine sexual orientation.

64 See also Section 8, infra.
8. LAWFULNESS AND ETHICS OF PLETHYSMOGRAPHY

Refugee law is founded on human rights protections, including the rights to asylum and privacy and protections from refoulement and inhuman and degrading punishment. These rights and protections are interrelated: If one set of rights is compromised or infringed upon, other rights are indirectly or directly affected. For example, using plethysmography in the refugee status determination context implicates the prohibition against degrading and inhuman treatment not just because plethysmography may itself be degrading treatment, but also because it can interfere with access to asylum and the prohibition on refoulement to a country where death or serious bodily harm can ensue.

In the context of criminal sex offenders, analysts have criticized not only plethysmography’s lack of reliability, but also its interference with the individual’s legal right to privacy. The legal and ethical implications of using plethysmography to determine sexual orientation are amplified greatly in the refugee status determination process, implicating not only the asylum seeker’s right to privacy, but also the rights to protection from medical abuses and religious freedom. The ethical issues arising from plethysmography further underscore the necessity of reconsidering alternative methods for assessing sexual orientation in the refugee context.

8.1. IMPLICATIONS FOR INHIBITION OF ACCESS TO ASYLUM

The legal, ethical, and privacy-related issues implicated in the use of plethysmography have been cited as factors inhibiting or blocking fair access to refugee protection. As articulated in Yogyakarta Principle 23, “[e]veryone has the right to seek and enjoy in other countries asylum from persecution, including persecution related to sexual orientation or gender identity.” This principle affirms the premise of the 1951 Refugee Convention, namely, the right to seek asylum, which in turn is derived in part from the Universal Declaration of Human Rights. The use of plethysmography in the RSD context endangers an individual’s right to seek asylum: Where the testing is a precondition for the determination of the claim, it may prevent the asylum seeker from accessing the asylum procedure altogether or from having the claim fully assessed.

Moreover, plethysmography itself may constitute a form of degrading and inhuman treatment from which asylum itself is designed to provide protection. It is this kind of

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66 See, e.g., Odeshoo, supra note 6, at 21–32.
treatment that multiple human rights instruments, including the European Convention on Human Rights, prohibit.  

The inherent vulnerability of asylum seekers, the discriminatory application and consequences of plethysmography for sexual minorities, as well as the effective coercion that results when the success of an asylum application depends on the testing, render the method fundamentally inappropriate in the asylum context.

8.1.1. Plethysmographic Testing Leading to Refoulement

The principle of non-refoulement prohibits a state from deporting an individual to a place where he or she “may face a well-founded fear of torture, persecution, or any other form of cruel, inhuman or degrading treatment or punishment.” The administration of plethysmography, as an unreliable tool for assessing sexual orientation, further creates a risk of erroneous rejections of refugee status applications. This may in turn result in the refoulement of bona fide refugees to countries where they face serious harm or execution.

Use of plethysmography in the RSD context may place an asylum seeker at risk of refoulement, owing to a lack of access to fair and effective asylum procedures. Such was the finding in a German case involving a man seeking expedited asylum after the Czech Republic terminated his first application. The German administrative court held that the Czech government’s administration of PPG as part of its RSD process had interfered with “an effective asylum process” and, by extension, with the individual’s right to be free from torture, inhuman, or degrading treatment under Article 3 of the European Convention on Human Rights. The court described the Czech Republic’s procedures in asylum applications based on sexual orientation and gender identity. It noted that the Czech government employed plethysmographic testing to verify the asylum seeker’s claimed sexual orientation, and that refusal by the asylum seeker to submit to the testing resulted in termination of his asylum application altogether.

Based on this practice, the German court was “convinced, at least with the certainty [necessary] for this expedited process, that in the Czech Republic, the applicant will be faced with hindrances in accessing the asylum process.” The court further noted that the human rights conformity of applying the procedure in the circumstances before it seemed “very dubious.”

The latter case presents but one illustration of the risk of administering plethysmographic testing in the asylum context. Even if the RSD is not terminated as a result of refusal submit to the procedure, the applicant’s reticence could detrimentally affect a finding of credibility.

71 See Yogyakarta Principle 23, supra note 67.
73 Ibid.
74 Ibid.
75 Ibid.
This would be true even where the refusal or discomfort is based on religious or cultural grounds.  

8.1.2. Plethysmography as Degrading Treatment

Plethysmography may constitute a form of degrading and inhuman treatment prohibited by multiple human rights instruments including the European Convention on Human Rights and the Yogyakarta Principles. If this is the case, requiring plethysmographic testing in asylum proceedings will perpetuate abuse of these individuals even as they seek protection from persecution.

Principle 10 of the Yogyakarta Principles affirms the right to be free from torture and cruel, inhuman and degrading treatment or punishment, including for reasons relating to sexual orientation and gender identity. The use of plethysmography on asylum seekers claiming refugee status based on their sexual orientation may thus be viewed as degrading treatment specifically relating to sexual orientation. This is particularly true in view of the fact that decision-makers routinely rely on asylum seekers’ testimony to evaluate credibility, and do not require invasive physical testing of any other group of individuals.

Article 3 of the European Convention on Human Rights (ECHR), which underlies Yogyakarta Principle 10, provides that “[n]o one shall be subjected to torture or to inhuman or degrading treatment or punishment.” “Degrading treatment” may violate Article 3 “if it is such as to arouse in the victim feelings of fear, anguish and of inferiority capable of humiliating and debasing the victim.” The European Court of Human Rights (ECtHR) has noted that it “may well suffice for a victim to feel humiliated in his or her own eyes, even if not in the eyes of others.” Singled out for the testing, isolated, and already persecuted for being gay, lesbian, or bisexual, an asylum seeker would reasonably feel degraded by

76 See Section 8.3, infra. See also UN High Commissioner for Refugees, Procedural Standards for Refugee Status Determination Under UNHCR’s Mandate, 20 November 2003, available at: http://www.unhcr.org/refworld/docid/42d66dd84.html, Section 4.3.5, which describes the refugee claimant’s duty to cooperate—i.e., the “obligation to fully cooperate with UNHCR in all aspects of the procedures to examine the refugee claim.”


79 ECHR, supra note 70.


plethysmographic testing: It would not only result in fear, anguish, and feelings of inferiority; in the case of a claimant from a culture prohibiting exposure to sexually explicit material, such testing would likely also produce feelings of deep humiliation. 

The ECtHR specifically examined whether phallometry amounted to a violation of Article 3 in Toomy v. UK. In that case, Michael John Toomey, who had been released conditionally from prison for assault, had been readmitted to custody after his probation officer recommended his immediate recall. Toomey requested a reinvestigation of his case. It was recommended that the assessment examine whether Toomey had had a sexual motive for his crime in order to determine his eligibility for corrective treatment. The assessment involved penile plethysmography. While the Court ultimately found that the use of PPG did not amount to degrading treatment under Article 3, the reasoning applied in the case strongly suggests that violation of the ECHR indeed occurs where plethysmography is required in the asylum adjudication context.

As noted above, the testing in Toomey was mandated not to determine his guilt or innocence, but to assess whether he was qualified for treatment. As referenced above, plethysmography, though widely eschewed in determining culpability, is still accepted in the treatment and diagnosis of criminal sex offenders. In addition, it was Toomey’s lawyer who had initiated the testing; Toomey consented and was free to discontinue the testing at any time. Finally, Toomey was already incarcerated. The government in Toomey argued that in view of the generally compromised dignity in a prison where other prisoners are undergoing the same examination, Toomey could not have felt so isolated as to be “degraded.”

Many of the mitigating factors in Toomey which prevented a finding of “degrading treatment” are typically absent in an asylum setting. First, RSD is not a criminal adjudication, and should in no way injure the asylum seeker’s dignity. Second, unlike Toomey, who was in an environment where plethysmography was routinely conducted, LGBTI refugee seekers are singled out for this invasive testing. Third, even if an asylum seeker voluntarily raises sexual orientation as a basis for refugee protection, because of the enormous power which RSD decision-makers wield over applicants, it is doubtful that the latter can freely decline plethysmographic testing. As noted by the European Union Agency for Fundamental Rights, an asylum seeker who believes his or her case will be denied in the absence of plethysmography may in reality have no choice but to submit to the test.

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82 See also Section 8.4, infra.
85 See Section 5.1, supra.
86 Gazan, supra note 84, at 91.
87 Ibid.
88 Ibid., at 92.
89 See Section 8.2, infra.
90 FRA Report, supra note 1, at 60.
8.2. Violation of the Right to Privacy

The invasiveness of plethysmography, particularly when viewed in the context of the profound skepticism over its utility, implicates an asylum seeker’s right to privacy, as affirmed in the Yogyakarta Principles. Principle 6 states:

Everyone, regardless of sexual orientation or gender identity, is entitled to the enjoyment of privacy without arbitrary or unlawful interference, including with regard to their family, home or correspondence as well as to protection from unlawful attacks on their honour and reputation. The right to privacy ordinarily includes the choices to disclose or not to disclose information relating to one’s sexual orientation or gender identity, as well as decisions and choices regarding both one’s own body and consensual sexual and other relations with others.91

Yogyakarta Principle 6 recognizes the deeply personal nature of one’s sexual orientation and gender identity and provides that all persons should be free from the unlawful interference of their right to choose whether to divulge information regarding these characteristics. This information logically encompasses explicitly sexual situations and images eliciting physical arousal.92 While an asylum seeker must divulge his or her sexual orientation in order to gain refugee protection, such exposure does not negate the right to privacy regarding highly intimate and personal details of sexual attraction and activity.

The extreme invasiveness of PPG and VPG also clearly constitutes interference with one’s physical privacy, as these procedures require the protracted attachment of mechanical instruments to the genitalia, highly private parts of the body. This is especially so in the case of the VPG, as it may take a female subject up to three hours to acclimate to the insertion of the VPG probe so that the examiner can record a baseline vaginal pulse and wall thickness.93

Yogyakarta Principle 6 stems from the right to privacy enshrined in multiple human rights instruments,94 including Article 8 of the ECHR, which provides:

1. Everyone has the right to respect for his private and family life, his home and his correspondence.

2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and

92 See generally Section 7.2, supra.
93 Andrew Steptoe, Psychophysiological Contributions to Behavioral Medicine and Psychosomatics, in HANDBOOK OF PSYCHOLOGY, supra note 9, 723, 724.
is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.\textsuperscript{95}

Like Yogyakarta Principle 6, Article 8 of the ECHR provides a balancing test which must be conducted to determine whether an impermissible invasion of privacy has occurred. Unless the invasion is “in accordance with the law” and “is necessary in a democratic society,” it is considered unlawful. In the context of RSD, phallometry cannot be considered “necessary.” As noted above, the scientific reliability of plethysmographic results is questionable.\textsuperscript{96} In addition, there are alternative effective means of testing the credibility of one’s sexual orientation or gender identity. Asylum claims adjudication universally relies on the testimony of an applicant during an interview. The development of sophisticated training materials for interviewing LGBTI asylum applicants will create an accurate and non-injurious alternative to phallometric testing.\textsuperscript{97}

Nor can the asylum applicant’s consent justify the infringement of privacy prohibited in ECHR Article 8 and Yogyakarta Principle 6. First, it is dubious whether an asylum seeker can give informed consent where he or she does not understand the full nature of the testing and all its implications. Moreover, even if the asylum seeker is fully informed, where the alternative to consent is termination or rejection of the asylum application, the applicant is effectively coerced into consenting, rendering that consent meaningless.\textsuperscript{98}

Thus, when weighed against the necessity of its use into determine sexual orientation in asylum proceedings, plethysmography likely constitutes an impermissible invasion of privacy.

### 8.3. Violation of the Right to Protection from Medical Abuses

As described above, the very methodology of both PPG and VPG is highly intrusive, involving the attachment of instruments to the genitalia and, in some cases, the presence of the examiner in the room while the subject maintains this vulnerable position.\textsuperscript{99} The use of such intrusive techniques also endangers an individual’s right to protection from medical abuse.

Yogyakarta Principle 18 provides that a person’s sexual orientation and gender identity are not to be treated as medical conditions,”\textsuperscript{100} and prohibits “any form of medical or psychological treatment, procedure, testing, or [confinement] to a medical facility, based on sexual orientation or gender identity.”\textsuperscript{101}

\textsuperscript{95} ECHR, supra note 70, at Art. 8.
\textsuperscript{96} Ibid.
\textsuperscript{97} See Section 9, infra.
\textsuperscript{98} FRA Report, supra note 1, at 60.
\textsuperscript{99} See Section 4, supra.
\textsuperscript{100} Yogyakarta Principles, supra note 67, at Principle 18,
\textsuperscript{101} Ibid.
Principle 18 further recommends that governments “ensure full protection against harmful medical practices based on sexual orientation or gender identity.”\(^{102}\) The Principle explains that such harmful medical practices may be based on “stereotypes, whether derived from culture or otherwise, regarding conduct, physical appearance or perceived gender norms.”\(^{103}\) The use of plethysmography to determine sexual orientation directly contravenes this recommendation. The physiological measurements involved may appear to qualify plethysmography as an “objective” test. However, as discussed above, the procedure is in fact based on stereotype-driven assumptions about which stimuli do or do not arouse persons of particular sexual orientations.\(^{104}\) Rooted in stereotype and degrading in its application,\(^{105}\) plethysmography likely constitutes the kind of harmful medical practice prohibited by Yogyakarta Principle 18.

### 8.4. ContraVention of Religious and Cultural Norms

Like other asylum seekers, those who seek protection based on their sexual orientation or gender identity most often internalize the cultural and religious values of the societies they have fled. Viewing sexually explicit materials during the course of plethysmography likely poses particular difficulties for these persons. For example, many LGBTI asylum seekers were raised in religious cultures condemning the viewing of sexually explicit material. Among these, the Qu’ran contains numerous passages commonly interpreted to prohibit the viewing of “obscene” material.\(^{106}\) Thus, a Muslim asylum seeker subjected to plethysmography may be coerced to contravene his or her basic religious and cultural mores.

Intense feelings of shame and self-repression often accompany revealing the kind of information necessary to make a claim of group membership in sexual orientation claims.\(^{107}\) Given this reality, it is to be expected that asylum seekers and refugees from LGBTI-repressive or punitive cultures will perform badly or extremely uncomfortably in the plethysmography test. The humiliation of viewing such materials, particularly under observation, is likely to augment the asylum seekers’ shame, further suppressing any “natural” reaction to the material shown.

Moreover, the experience may leave asylum applicants with lingering feelings of shame, humiliation and helplessness, deepening the trauma of the persecution they have fled.

\(^{102}\) Ibid., at Principle 18(a).

\(^{103}\) Ibid.

\(^{104}\) See Section 7.4, supra.

\(^{105}\) See Section 8.1.2, supra.

\(^{106}\) One of the most cited passages is in the Surah (chapter) Al-Noor, verse 19: “Those who love (to see) scandal published broadcast among the Believers, will have a grievous Penalty in this life and in the Hereafter: Allah knows and ye know not.” “Surah Al-Noor (the Light)” (Yusuf Ali trans.), ItsIslam (Quran Audio and Translation), available at [http://www.itsislam.net/quran/surah.asp?sid=24](http://www.itsislam.net/quran/surah.asp?sid=24).

9. CONCLUSION AND RECOMMENDATIONS

Scientific and legal findings show clearly that plethysmography cannot be relied upon to accurately determine sexual orientation in the asylum and RSD context. An erroneous plethysmographic test can lead to the refoulement of a bona fide LGBTI refugee, resulting in further persecution or even execution. The requirement that one submit to plethysmography breaches a number of fundamental rights, including the right to privacy and to be free from degrading treatment. The same requirement can also block an individual’s access to asylum.

As authorities in RSD proceedings are presented with increasing numbers of asylum applications by sexual minorities, they need at their disposal systematic and reliable tools to determine sexual orientation. Based on the overwhelming body of evidence available, plethysmography is decidedly not such a tool. Moreover, the procedure itself may amount to a violation of the human rights of LGBTI asylum seekers and refugees.

In light of these findings, the government of the Czech Republic is urged to take the following steps:

- Immediately desist from using phallometry in the attempt to determine sexual orientation or gender identity in the asylum adjudication context; and
- Where feasible, re-open and re-examine refugee claims previously denied based either on the results of plethysmographic testing or on the refusal by claimants to undergo the procedure.

Stakeholders in the international refugee protection regime worldwide are urged to take the following steps to improve adjudication standards in asylum and refugee claims involving sexual orientation or gender identity:

- Support the development of accurate training materials and inoffensive and lawful techniques for interviewing asylum seekers and refugees who claim persecution based on their sexual orientation or gender identity;
- Work with LGBTI rights groups and other human rights bodies to develop standards and guidelines for evaluating refugee claims based on sexual orientation and gender identity; and
- Provide intake staff, claims adjudicators, and judges with training on sexual orientation and gender identity, including basic definitional concepts on these identities and their characteristics.
10. APPENDIX

**FIGURE A. VOLUMETRIC PPG**\(^{108}\)

In the volumetric method of penile plethysmography, a tube is placed around the penis. As the subject’s penis becomes flaccid or erect, the plethysmograph measures the change in air volume within the tube.

**FIGURE B. MERCURY IN RUBBER STRAIN GAUGE**\(^{109}\)

Placed on the penis, the mercury-filled silicone ring measures the change in the circumference of the penis. An electrical current runs through the ring. As the ring expands, the mercury inside it thins, creating a quantifiable change in resistance against the current.

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\(^{108}\) Ray Blanchard, Chair, Paraphilias Workgroup, Centre for Addiction and Mental Health (Toronto, Ontario), Lecture at the 19th World Ass’n for Sexual Health (WAS) World Congress for Sexual Health: Paraphilias and the DSM-V: General Diagnostic Issues and Options Exemplified with Pedohebephilic Disorder (25 June 2009), available at [http://individual.utoronto.ca/ray_blanchard/index_files/WAS_DSM.html](http://individual.utoronto.ca/ray_blanchard/index_files/WAS_DSM.html).

\(^{109}\) SexLab, Equipment & Instruments, [http://www.indiana.edu/~sexlab/ei-pp.html](http://www.indiana.edu/~sexlab/ei-pp.html).
The metal cuff is placed around the subject’s penis. Wires attached to the cuff measure changes in electrical resistance as the penis becomes flaccid or erect.

Comparable in size to a menstrual tampon, the vaginal photoplethysmograph probe is inserted into the vagina, where it emits light. The photoplethysmograph in turns measures the absorption of light by the walls of the vagina, a function of the engorgement of the subject’s vaginal walls with blood.