

## Testing Legal Assumptions Regarding the Effects of Dancer Nudity and Proximity to Patron on Erotic Expression

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*A field experiment was conducted in order to test the assumptions by the Supreme Court in Barnes v. Glen Theatre, Inc. (1991) and the Ninth Circuit Court of Appeals in Colacurcio v. City of Kent (1999) that government restrictions on dancer nudity and dancer-patron proximity do not affect the content of messages conveyed by erotic dancers. A field experiment was conducted in which dancer nudity (nude vs. partial clothing) and dancer-patron proximity (4 feet; 6 in.; 6 in. plus touch) were manipulated under controlled conditions in an adult night club. After male patrons viewed the dances, they completed questionnaires assessing affective states and reception of erotic, relational intimacy, and social messages. Contrary to the assumptions of the courts, the results showed that the content of messages conveyed by the dancers was significantly altered by restrictions placed on dancer nudity and dancer-patron proximity. These findings are interpreted in terms of social psychological responses to nudity and communication theories of nonverbal behavior. The legal implications of rejecting the assumptions made by the courts in light of the findings of this study are discussed. Finally, suggestions are made for future research.*

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The First Amendment provides, in part, that “Congress shall make no law . . . abridging the freedom of speech, or of the press. . . .” The threshold question in a free speech case is whether a law proposed to govern speech is content-based, that is, whether the law regulates speech based on the *ideas* or *messages* it expresses. Content-based regulations will normally be determined to be a violation of the First Amendment right of freedom of speech unless the government can prove otherwise (*R.A.V. v. City of St. Paul*, 1992). If a statute is content-based, it must survive what the courts have termed “strict scrutiny” to be constitutional. On the

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other hand, government is given much more leeway when it tries to fashion content-neutral regulations that may limit some speech by happenstance. If a statute is content-neutral, it is subject to only “intermediate scrutiny.” Therefore, government may impose reasonable time, place, and manner restrictions if they are justified without reference to the content of the regulated speech (*Ward v. Rock Against Racism*, 1989).

There are a number of laws in the United States today prohibiting exotic dancers in adult nightclubs from performing nude. Other laws have been enacted that regulate the proximity of dancers to patrons in these clubs. The courts have maintained that these government restrictions do not violate the First Amendment guarantee of freedom of speech because they do not substantially alter the erotic message conveyed by the dancer and are therefore content-neutral.

The Supreme Court in *Barnes v. Glen Theatre, Inc.* (1991) ruled that laws requiring dancers to be partially clothed in the State of Indiana are permissible under the First Amendment because these laws do not substantially hinder the dancer’s expression. In addition, the Washington State Supreme Court held that regulating dancer–patron proximity from one another passes constitutional muster because this prohibition is merely a “reasonable time, place, and manner” restriction on speech which does not suppress any message that is being communicated (*Ino, Ino, Inc. v. City of Bellevue*, 1997). Most recently, the U.S. Court of Appeals for the Ninth Circuit ruled that an ordinance passed by the City of Kent in Washington which requires nude dancers to perform at least 10 feet from patrons does not violate the First Amendment for essentially the same reasons (*Colacurcio, v. City of Kent*, 1999).

The study reported here is an attempt to empirically test the assumptions made by the courts in *Barnes*, *Ino, Ino*, and *Colacurcio* that government limitations on dancer nudity and dancer–patron proximity are content-neutral and do not affect the content of messages conveyed by dancers—and are, therefore, reasonable time, place, and manner restrictions.

## REGULATING MESSAGES EXPRESSED THROUGH SYMBOLIC BEHAVIOR

In the landmark decision *U.S. v. O’Brien* (1968), the Supreme Court ruled that if the government can assert that an important interest is at stake it may regulate so-called “symbolic behavior”—behavior intended to communicate a message.<sup>5</sup>

<sup>5</sup>On March 31, 1966, David Paul O’Brien burned his draft card on the steps of the South Boston Courthouse in an apparent effort to influence others to adopt his antiwar beliefs. O’Brien was immediately arrested by the FBI. O’Brien insisted that he knew he had violated the law. He argued that his actions were his way of symbolizing his antiwar beliefs. The Supreme Court upheld his conviction, reasoning that the continued availability of issued certificates (draft cards) served a legitimate and substantial purpose in the administration of the selective service system. O’Brien’s deliberate destruction of his draft certificate frustrated this purpose. The *O’Brien* decision established the idea that under certain circumstances involving speech and nonspeech elements, the government is able to regulate the nonspeech activity *while presuming to leave the message intact*. As with draft card burning, many federal and statutory laws govern other expressive behavior. Justice Brennan, writing for the majority in *O’Brien* said, “when speech and nonspeech elements are combined in the same course of conduct, a sufficiently important governmental interest in regulating the nonspeech element can justify incidental limitations on First Amendment freedoms” (*U.S. v. O’Brien*, 1968, p. 376).

The Court devised a four-part test for determining whether states can restrict symbolic behavior. These components, known as the *O'Brien* test, asks whether: (a) the regulation is “within the constitutional power of the government,” (b) the restriction furthers an “important or substantial governmental interest,” (c) the restriction is “unrelated to the suppression of free expression,” and (d) the “incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.”

### Anti Nudity Ordinances and Expression

Chief Justice Rehnquist, writing for the plurality in *Barnes*, but joined by only two other Justices, held that erotic dancing is protected expressive conduct within the outer perimeters of the First Amendment, but application of the Indiana statute banning such dancing was justified under the *O'Brien* test.<sup>6</sup> Applying this test, Chief Justice Rehnquist found that the Indiana anti nudity statute was (a) within the state’s constitutional power, (b) designed to protect public morals and public order and thus furthered a substantial governmental interest, and (c) unrelated to the suppression of free expression, in that the Indiana statute sought to address the problem of public nudity, not erotic dancing. Specifically with regard to part (c) of the *O'Brien* test, the Chief Justice offered the following opinion:

. . . the requirement that the dancers don pasties and G-string does not deprive the dance of whatever erotic message it conveys; it simply makes the message slightly less graphic. The perceived evil that Indiana seeks to address is not erotic dancing, but public nudity. Applying the same logic, the court upheld the Indiana statute, ruling that while the dancing may have a communicative element, it was not the dancing that the statute prohibited, but rather its being done in the nude.

In reference to part (d) of the *O'Brien* test, he reasoned that requiring the dancers to wear at least “pasties” and a “G-string” was narrowly tailored to achieve the state’s purpose, without significantly abridging First Amendment freedoms. The plurality opinion affirmed Indiana’s enforcement of its public nudity statute as a reasonable time, place, and manner restriction.

Justice White, joined by Justices Marshall, Blackmun, and Stevens, dissented

<sup>6</sup>There is some confusion about which opinion is the ruling opinion in the *Barnes* case. The plurality opinion affirming the state’s enforcement of its public nudity statute as a reasonable time, place, and manner restriction was written by the Chief Justice and, joined by two other justices. Justice Scalia concurred in the judgment, but concluded that because the law at issue was not specifically directed at expression, it should not be subject to any First Amendment scrutiny. Justice Souter concurred in the judgment and provided the fifth vote needed to overcome the views of the four dissenting Justices. Justice Souter, like the plurality, affirmed the statute as a reasonable time, place, and manner restriction, but unlike the plurality, did so based on the proffered justification of combating the undesirable secondary effects of adult entertainment establishments. The U.S. Court of Appeals for the Seventh Circuit has held that Justice Souter’s reasoning appears to be the Court’s holding because his was the narrowest reasoning supporting the judgment (*DiMa Corporation v. Town of Hallie* 1999). Three other circuits have also concluded that Justice Souter’s concurrence is the Court’s holding (*J & B Entertainment; Triplett Grille, Inc. v. City of Akron*, 1994; *International Eateries of America, Inc. v. Broward County*, 1991). However, a federal judge in *Nakatomi Investments, Inc. v. City of Schenectady* (1997) has held that Justice Souter’s concurring opinion in *Barnes* is not the controlling opinion. In this case, the Court found that Justice Souter’s concurrence did not set forth a “subset of the principles articulated in the plurality opinion” nor did it articulate a common underlying approach that comports with the plurality opinion and prior Supreme Court precedent.

from Chief Justice Rehnquist's opinion in *Barnes*. Justice White concurred with the Seventh Circuit Court of Appeals, which had earlier ruled the Indiana ordinance unconstitutional. That court found that nude dancing conveyed a "message of temptation and allurements" that was protected by the First Amendment. Justice White asserted that nudity was a vital part of the dancer's message and said that requiring dancers to wear clothing, however scant, would alter the effect of the dance: ". . . the emotional or erotic impact of the dance is intensified by the nudity of the performers . . . the nudity of the dancer is an integral part of the emotions and thought that a nude dance performance evokes. The sight of a fully clothed, or even partially clothed dancer generally will have a far different impact on a spectator than that of a nude dancer, even if the same dance is performed."

### **Distance Regulation and Expression**

In addition to the restrictions placed on nudity, there have been numerous state and local laws regulating the physical distance an erotic dancer must keep from club patrons. Ordinances in the State of Washington and elsewhere have required that all nude dancing take place at some specified distance from patrons (e.g., 4-foot distance to be measured from the torso of the dancer to the torso of the customer). Such a 4-foot restriction was upheld by the Washington State Supreme Court (*Ino, Ino, Inc. v. City of Bellevue*, 1997). The Court ruled that the 4-foot distance regulation does not ban erotic dancing outright, rather, it merely imposes a reasonable time, place, or manner restriction on the performance of the dance.

When the Washington Court applied the *O'Brien* test it found that the government has a substantial interest in regulating the distance between dancer and patron because such a regulation facilitates the detection of public sexual contact and discourages this contact from occurring in the first place. The Court found that whatever erotic message is conveyed by nude dancing is not substantially altered by an ordinance that is aimed at regulating behavior (sexual conduct) by keeping the dancer a certain distance from the patron. The Court said that the message of eroticism could be conveyed just as effectively from 4-feet as it could from a closer distance.

The Ninth Circuit Court of Appeals has also addressed the issue of patron-dancer distance regulations as well as the additional question of whether the government can ban touching between the patron and dancer (*KEV, Inc., v. Kitsap County*, 1986). To this end, the Court held that both distance and touching prohibitions could be construed as content-neutral time, place, and manner regulations and are acceptable so long as they meet the *O'Brien* test. The Court found that the substantial government interest in prohibiting narcotics transfers or sexual favors justifies prohibitions on touching and distance regulations and does not unreasonably limit alternative avenues of communication. The Ninth Circuit reasoned that the county has a legitimate and substantial interest in preventing social problems that accompany erotic dance and threaten the well-being of the community. While, according to the court, the dancer's erotic message may be slightly less effective from a certain

distance (in this case 10 feet), the ability to engage in the protected expression is not significantly impaired.

## SOCIAL SCIENCE RESEARCH

The U.S. Supreme Court, the State Supreme Court of Washington, and the Ninth Circuit U.S. Court of Appeals assume that government restrictions on nudity and proximity do not affect the erotic messages communicated by the dance, nor, according to the courts, do they have a substantial impact on the message received by the spectators. But do the courts' assumptions comport with what is known from scientific studies of the effects of exposure to nudity and interactant proximity on message communication?

### **Nudity and Messages of Eroticism, Sexual Intimacy, and Feelings of Positive Affect**

Social psychological theory and research suggest that, contrary to the courts' assumption of no difference in the message communicated by a nude versus a clothed dancer, men exposed to a nude female, when compared to a partially clad female, show altered patterns of sexual stimulation, experience emotional changes and attitudinal shifts, and exhibit certain behaviors.

First, there is a wealth of evidence substantiating a rather obvious truism—men are interested in and sexually aroused by the sight of a nude woman (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953; Symons 1979). This is especially evident when male and female responses to nudity are compared. For example, Stauffer and Frost (1976) asked college men to view nude female photos in *Playboy* and women to view nude male photos in *Playgirl*. The men and women then reported their degree of sexual interest and arousal. The results showed that 88% of men rated the nude female photos as “sexually interesting,” but only 46% of women rated the nude male photos as such. Further, when subjects reported their degree of sexual stimulation in response to the photos, 75% of men reported “high stimulation.”

In addition to sexual interest and arousal, men exposed to nude females experience a change in affect (emotional reaction) and show changes in attitudes toward objects associated with female nudity. Research on consumer reactions to nudity in advertisements suggests that men, compared to women, show more positive emotional arousal and positive attitudes toward a product after viewing ads for the product containing female nudity (Judd and Alexander, 1983; LaTour, Pitts & Snook-Luther, 1990; La Tour & Henthorne, 1994). Changes in emotional reactions among males have also been found to occur in response to female nudity in other contexts. Zillmann and Sapolsky (1977) found that subjects who saw nude photographs reported feeling less bored and more pleased than when viewing other stimuli.

The men exposed to nude females in the Zillmann and Sapolsky (1977) study

were also less likely to exhibit aggressive behavior toward a female confederate of the experimenter immediately after viewing the nudes. This finding that men are less likely to aggress after seeing nudity appears to be robust. Donnerstein, Donnerstein, and Evans (1975) exposed men to either neutral control stimuli or pictures of nude females in an investigation of the effects of erotic stimuli on subsequent aggression. Exposure to nudity inhibited men's aggression toward females they were later asked to punish. Those who saw the neutral photos showed no reduction in aggression. Baron (1974) also found that following exposure to nude photographs of women, men showed lower levels of aggression toward a female compared to men who viewed semiclad women and the neutral photographs. In combination, these behavioral studies of aggression suggest that when males are exposed to nude females, they experience effects that are noticeably different than reactions to semiclad females or neutral stimuli. The explanations for these findings vary according to author. Perhaps the most compelling is offered by Baron, who suggests that the "erotic" messages conveyed by the nude female stimuli induce a state of mind that appears to be "incompatible" with aggressive thoughts and behaviors.

Ethnographic studies of nude dancing suggest it may be reasonable to suppose that exposure to nudity will result in the communication of additional messages to viewers. Specifically, the presence of a nude dancer may instill a feeling of "intimacy" in observers. Enck and Preston (1988) and Ronai and Ellis (1989) examined the tactics employed by erotic dancers to gain larger tips and obtain the more financially lucrative private dances. Enck and Preston (1988) describe stripper performances as communicating "counterfeit intimacy"—dancers have the goal of creating an alluring and intimate atmosphere in order to further their interest in larger tips. According to these authors, the success of the performance is especially dependent on the dancer's ability to convincingly convey a message of intimacy: "she manipulates the sexual fantasies of her customer through this operation, thereby giving the customer the illusion that sexual intimacy is possible if he has the seductive finesse to gain her participation."

In summary, the courts' intuition that banning nudity is a content-neutral regulation is at odds with the evidence from social science research. The strong implication of the research is that a different message is sent to male observers by a female by virtue of the fact that she is nude rather than clothed. Men's response to nude females suggests that nudity conveys a range of messages to the viewer which increases attention and interest, changes emotions, affects attitudes, and even influences subsequent levels of aggressive behavior. Nude dancers may also communicate a message which instills a feeling of "intimacy" in many observers.

### **Sociocultural Messages and Nudity**

Aside from changes in erotic and intimacy messages, a few authors, primarily scholars of dance and movement, as well as anthropologists, have suggested that nudity also expresses certain sociocultural messages. Dance scholars have maintained that dancing, especially nude dancing, may allow some women to engage in "displays of sexual freedom"—behavior for which they were previously shamed (Dragu & Harrison, 1988). Anthropologists have suggested that there may be a

series of messages which erotic dancers try to convey. Hanna (1995) suggests that erotic dance allows women to express themselves as freely as men, do what they want with their body, and express the idea that the female body is beautiful. Support for this contention was found by Rynne (1992), who interviewed female dancers in so-called “upscale” adult nightclubs. She found that dancers believed that capitalizing on their bodies was sexually liberating. That some dancers believe that nude dancing is an opportunity to express sexual liberation was also substantiated by Forsyth and Deshotels (1997).<sup>7</sup>

Again, contrary to the courts’ assumptions that restrictions on nudity do not substantially affect the messages conveyed by the dancers, the studies reviewed above suggest that some erotic dancers may use nudity to convey messages about the beauty of the female body and their own sexual freedom that cannot be conveyed while clothed.

### **Proximity and the Communication of Intimacy Messages**

As noted above, erotic dancers may try to captivate their audience by creating a seductive and intimate atmosphere through nudity. Another way the dancer may be able to create a sense of intimacy is by moving close to the dance patron. Social science research would suggest that varying the degree of physical proximity between patron and dancer may have a profound effect on the patron’s feelings of intimacy.

Several researchers have investigated the communicative effects of physical proximity on interpersonal communication. In particular, theorists such as Hall (1973) and Burgoon (1983) have examined how the distance people maintain from one another affects the message that is communicated about their relationship. Hall (1973) believed that the proximity of one person to another is a potent “modifier” of the social context of an interaction. Indeed, the proximity of one person relative to another in a social interaction has been shown to serve as an indicator of potential relational expectations (Le Poire & Burgoon, 1994). However, the primary function of physical proximity in a social interaction, according to Hall, is to convey a message about the level of intimacy appropriate or desired for that interaction.

Hall has proposed that we have four “zones” or distance categories for social interaction. Within each zone, we perceive distinct cues about what level of intimacy to expect. These cues and expectations influence how we interpret relational messages sent to us by others (Le Poire & Burgoon, 1996).

The zones are arrayed in a continuum—as the participants move further away from each other, the imposition of distance modifies the content of relational messages from intimate to more formal. The first of Hall’s four zones is the “intimate zone,” a distance between interactants of anywhere from 0 to 1 1/2 feet. This zone,

<sup>7</sup>There are those, of course, who find the idea that exotic dancers are expressing messages of sexual liberation to be implausible. In this view, nude dancing may be a form of female exploitation and the sight of a nude woman dancing may invoke thoughts of oppression rather than liberation. While we are very sympathetic to this possibility, our interviews with the dancers participating in this study suggest that it is unlikely that they or other dancers in adult establishments are trying to convey a message of oppression to patrons.

which may include participant touching, maximizes sensory involvement and may be where such involvement may even be expected. The second zone, 1 1/2–4 feet between participants, is termed “personal” distance. This zone functions primarily as an area for conversations among friends and relatives. The third or “social” zone involves a distance between individuals of 4–10 feet. This distance is employed when greeting a visitor from a desk or when one is asking for directions from a stranger on the street. In the last or “public” zone, the interactants are positioned 10–25 feet apart. This zone is used primarily for formal presentations, plays, speeches, and other means of public communication. At this level, sensory involvement is greatly reduced and other objects and people compete for the interactants’ attention.

Use of these zones is remarkably consistent within a culture. Conformity to the distance requirement of each zone may not even be noticed by participants. Most importantly, use of the zone or crossing from one zone to another may be considered a form of communication in itself. When a casual acquaintance engages us in an “intimate” zone, we may expect to hear something private. Because of this expectancy, we may come to evaluate what is being said as private in this zone, whereas exactly the same words spoken in the “personal” zone may convey a different message altogether.

Expectancy violation theory (EVT) (Burgoon, 1978, 1992; Burgoon & Hale, 1988; Hale & Burgoon, 1984; Le Poire & Burgoon, 1994) provides a framework for studying the way in which people respond to changes in personal proximity. The premise of EVT is that we have established norms for social interaction, and violations of those norms produce an arousal response which draws our attention to the violation itself (Burgoon & Le Poire, 1993). The reaction to the expectancy violation may be positive or negative, depending on the circumstances. An important premise of EVT is that when personal space norms are violated by high-reward (attractive) participants, the violator, the interaction, and the message conveyed may be evaluated more positively than they would be if the violations came from low-reward (unattractive) individuals. This has been confirmed in research (Burgoon, 1978; Burgoon & Aho, 1982; Burgoon, Stacks, & Burch, 1982).

Research has also been conducted on expectancy violations and touching. People appear to evaluate touch according to consistent and internalized norms (Bradac, O’Donnel, & Tardy, 1984; Burgoon, Buller, & Woodall, 1996; Derlega, Lewis, Harrison, Winstead, & Costanza, 1989; Henley, 1977; Heslin & Alper, 1983). For example, people who know and care about each other and who are in an intimate relationship expect touch frequently and evaluate it positively (Greenbaum & Rosenfield, 1980; Heslin & Alper, 1983; Heslin & Boss, 1980). Among relative strangers, the valence of the evaluation is dependent on the type of touch, as well as communicator characteristics (Burgoon, Walther, & Baesler, 1992). Touch may be evaluated positively if it comes from a high-reward communicator or negatively if initiated by a low-reward communicator. Research has demonstrated that people are more receptive to and evaluate touch as more desirable when the communicator is physically attractive (Burgoon & Walther, 1990).

Further, different types of touch convey different types of meanings. For example, among a pat, a stroke, a squeeze, and a brush, a pat is seen as the most “playful

and friendly,” a stroke as the most “loving, pleasant and sexual” (Heslin, Nguyen, and Nguyen, 1983). Similarly, Jones and Yarbrough (1985), in their taxonomy of purposeful touches, distinguish positive-affect touches from other types of touches. Positive-affect touches (such as light strokes to the face, shoulder, and arms) communicate unambiguous positive messages of support, appreciation, inclusion, sexual intent or interest, and affection.

In summary, whereas the courts assume that limiting the physical proximity of dancers to patrons will have no effect on the interpersonal message being communicated, social science research suggests otherwise. Hall’s notion of normative distance zones for interaction would suggest that a spectator observing a dancer at close proximity may infer that the encounter is an intimate one, especially if it were to occur in Hall’s “intimate” zone of 0–1 1/2 feet and were to include a positive-affect touch. At a distance of 4 or more feet, expectations may conform to what is expected in the “personal” distance zone—one more suited to conversations between casual acquaintances. The mere presence of the dancer in the “intimate” zone may well communicate a message of intimacy regardless of any words spoken.

Expectancy violation theory suggests that normative expectations of proximity and characteristics of communicators mediate relational messages. Closer distances, coupled with attractive communicators, yield more intimate relational messages. Violations of social distance norms by attractive people are therefore likely to be evaluated positively.

### The Present Studies

Two studies were designed to test the proposition that the erotic, relational, social, and affect messages conveyed by erotic dancers are significantly influenced by two legal regulations—banning dancer nudity and restrictions on dancer distance from spectators.

First, the social psychological research on men’s reaction to nudity implies that certain psychological reactions will occur when men are exposed to nude females. Men’s response to nude females suggests that nudity conveys messages which increase attention and interest, changes emotions, affects attitudes, and even influences subsequent levels of aggressive behavior. Ethnographic studies suggest that nudity will communicate a message of intimacy. These findings led us to formulate the following hypotheses:

- *Hypothesis 1:* Nude dancing, compared to semi-clad dancing, will communicate a significantly more erotic message to men, and exposure to nude dancers will invoke more positive affective reactions in spectators than exposure to semi-clad dancers.
- *Hypothesis 2:* Nude dancing, compared with semi-clad dancing, will also communicate a message of greater intimacy to men.

Second, as noted in the review above, dance scholars and anthropologists have suggested that erotic dancers use nudity to convey messages about the beauty of the nude female body and the freedom to display it. From this writing and research we suggest the following hypothesis.

- *Hypothesis 3*: Nude dancing will be more likely to convey social-cultural messages such as freedom of expression and the idea that the female body is beautiful than semi-clad dancing.

Expectation violation theory asserts that expectations concerning communicator proximity and other communicator characteristics have a significant role in determining relational messages. The research has shown that close physical proximity by attractive targets results in the perception of more intimate relational messages; we surmise that violations of social distance norms by the attractive dancers in the present study are likely to be evaluated positively. Based on these findings, the following hypothesis may be advanced regarding dancer–patron proximity.

- *Hypothesis 4*: Dancers who perform 6 in. from the patron (intimate zone) will be perceived as communicating a more intimate relational message than dancers performing 4 feet (personal zone) from the patron.

Finally, research suggests that touch on the arm or the shoulder is expected among intimates. Thus, in a condition in which the dancer touches the patron this way, the message of intimacy will be even more clearly communicated. Attractive others will also elicit positive emotions when they touch compared to when they do not touch. Under conditions in which the dancer touches the patron (i.e., on the shoulder or the arm), we expect that the message of intimacy will be communicated even more clearly compared to conditions in which the dancer does not touch the patron. Based on these findings, the following hypothesis may be advanced regarding dancer–patron proximity and touching.

- *Hypothesis 5*: Dancers who perform 6 in. from the patron (intimate zone) and touch him will be perceived as communicating a more intimate relational message compared to dancers who perform either 6 in. away and do not touch him, or 4 feet from the patron.

These hypotheses are pitted against the collection of “null” hypotheses offered by the Supreme Court in *Barnes* (1991), the Washington State Supreme Court in *Ino, Ino, Inc.* (1997), and the Ninth District Court in *KEV* (1986) that the erotic, social, relational, and emotional message content of erotic dancing is unaffected by distance and anti nudity regulations.

Hypotheses 1–3 were tested using a within-subjects experimental design with all patrons participating in the nude and not-nude conditions in Study 1. In Study 2, a factorial experiment was employed in which nudity was manipulated in conjunction with distance in a mixed design primarily to test Hypotheses 4 and 5 under nude and clothed conditions.

## STUDY 1

### Method

#### *Subjects*

Twenty-four patrons of the Little Darlings dance club of Las Vegas, Nevada, were recruited for participation in the study.

### *Design*

A two-level, within-subjects design was employed. Each participant viewed two dances; one dance was performed by a nude dancer and one was performed by a dancer who was partially clothed. The order of the dances was randomly determined.

### *Materials*

*Pre-Dance Questionnaire.* Before viewing the erotic dance, patrons completed a questionnaire which asked them to report: (1) any business or personal relationship with anyone who worked in this Little Darlings establishment or Deja Vu dance clubs across the country, or with anyone in the exotic dance industry, (2) if they had heard anything about this study or the specific questions asked, (3) whether they had previously visited this Little Darlings club or any club where nude or exotic dancing is offered, (4) employment in any capacity in law enforcement, and (5) demographic information including, age, race, religiosity, marital status, income, political orientation (conservative-liberal), and level of education.

*Post-Dance Questionnaire.* After viewing the dances, the patrons completed a questionnaire assessing degrees of erotic, relational, and social communication and temporary affect states.

The construct Erotic Communication was derived from two sources: (a) the written opinions in the court cases previously discussed, and (b) personal interviews with the prospective dancers. For example, in *Barnes*, the Court speaks of dancers conveying "allurement with a message of temptation." The majority in *KEV* wrote that erotic dancing is an attempt to "arouse the sexual desires of his patrons." Personal interviews with 21 dancers employed at the Little Darlings dance club in Las Vegas, Nevada, indicated that they were attempting to convey messages of "wanting" or "desiring" the customer, or conveying a message of "seduction" and "sensuality."

Broadly speaking, Relational Communication refers to the messages used to negotiate, express, and interpret relationships (Burgoon et al., 1996). This construct was formulated by Burgoon and Hale (1987), who identified 12 factors comprising relational encounters. These are (1) dominance-submission, (2) emotional arousal, (3) composure-noncomposure, (4) similarity-dissimilarity, (5) formality-informality, (6) task versus social orientation, (7) intimacy and the subcomponents of intimacy, (8) depth (or familiarity), (9) affection (attraction and liking), (10), inclusion-exclusion, (11) trust, and (12) intensity of involvement. Interviews with the dancers suggested that we restrict the scope of the relational construct used in this study to messages of intimacy, emotional arousal, and attraction.

The content of Social Messages potentially conveyed by dancers was derived from personal interviews with the dancers, First Amendment attorneys, and the anthropological observations noted above.

The items forming the Erotic Communication, Relational Communication of intimacy, and Social Messages constructs were combined to form scales. Emotional arousal was measured with three separate adjective-items derived from the Multiple Affect Adjective Check List. Each adjective was presumed to represent one of

three independent emotional domains measured by Zuckerman and Lubin (1965). Dancer attraction and a companion construct, "entertaining," was assessed with single-item indicators. Social messages were assessed with three items. Below we list excerpts of the post-dance questionnaire. Each question subcomponent, with the exception of Question 5, was followed by an "agree-disagree" response scale where 1 = strongly agree and 8 = strongly disagree:

1. *Erotic Communication*. "The Dancer's dance was: (a) Passionate, (b) Artistic, (c) Sexy, (d) Erotic, (e) Alluring with a message of temptation, (f) Seductive, (g) Stimulating, (h) Personal."

2. *Relational Communication*. "Did you feel that the dancer was expressing to you through her dance the fantasy that: (a) She wanted to make you feel like you were a special person? (b) She liked you? (c) She was personally interested in you? (d) She desired you? (e) There was intimacy between the two of you? (f) She wanted to be romantically involved with you?"

3. *Affect Adjectives*. "Immediately after the dance I felt: (a) Happy, (b) Annoyed, (c) Anxious."

4. "The Dancer was *attractive*."

5. "Please rank the dances according to how *entertaining* they were: 'First,' or 'Second' under each dancer who performed the dance."

6. *Social Messages*. "Did the dancer express to you that: (a) Women can express themselves as freely as men? (b) She was free to do what she wanted with her body? (c) The female body is beautiful?"

### *Procedure*

The study was conducted at the Little Darlings dance club in Las Vegas, Nevada. All male patrons visiting the club between 12:00 noon and 9:00 pm during August 19–23, 1995, were approached by two male research assistants and asked if they would like to visit a separate room within the club to watch two dances. In exchange for participation they were offered a "VIP" card which entitled them to free entry to other Deja Vu dance clubs. After being recruited for participation, two participants at a time were taken to a separate room in the back of the main club area where they completed consent forms.

*Obtaining Informed Consent*. The male participants were asked to provide written informed consent for participation in the study. They were informed they would be asked to view two adult entertainment dances and asked to agree that during the two dances they would not talk to the dancers. They also agreed to refrain from touching the dancers. Patrons were also informed that participation in this study and any answers which they might give to the questionnaires following the dances would be completely confidential. After signing the consent form, the men were provided instructions for completing the pre-dance questionnaire.

*Dancer Training*. Eight dancers were trained by a professional dance choreographer for 1 week prior to participation in the study. Each dance was performed to one of 12 contemporary slow rock songs. The dancers began their routine in identical clothing (a black dress) which was removed within approximately 30 sec of the dance. Dancers in the nonnude condition were clothed in a thin band bra and a "G" string which remained on after the black dress was removed. Those in

the nude condition did not wear these items of clothing. The dance routine and the music accompanying the dance were held constant across the nude and non-nude conditions.

*Randomizing the Dance Sequences to Control for Order Effects.* The dancers were randomly assigned to nude or nonnude “sequences” by the experimenter in order to control for order effects. The dancer in a given sequence was instructed to perform (e.g., nude) for one patron and then move to the next patron and perform exactly the same dance (also nude). A single sequence was defined as two separate, identical performances, one for each of the patrons seated in the two alcoves. In order to insure that the dancers followed the specified rotation, a female research assistant coordinated the schedules of the dancers and observed all performances.

*Dance Viewing.* The participants were separated from each other by a cloth partition. Once seated, they were given the following instructions:

We are going to show you two dances. Each one will be presented by a different performer. It is important that you do not talk to or touch any of the dancers. There will be a brief pause between each dance. Please stay seated until the second dance has been completed. Do not offer the dancers any tips or money. Afterwards, I will give you a questionnaire that asks you how you feel about each of the dances. Remember that we are interested in getting your reaction to each dance that you see. We are not trying to evaluate the women who are dancing. Nothing that you tell us will be used to affect a dancer in any way. Once you have completed the questionnaire, I will give you the special VIP card for future admission to any Deja Vu dance club as thanks for your help.

Each patron viewed two dances in random order. One dancer performed nude and the other dancer performed partially clothed.

The dancers began the performance with a brief statement to the man. They said: “Hello, my name is \_\_\_\_ and I am going to dance for you.” In the dance, the dancer made several slow turns and moved her body in a rhythmic fashion. The dancer stayed in front of the patron the duration of the dance, but never placed herself closer than 6 in. from the patron. The dancer ended the dance with her hands to her hips and her head tilted downward. Each dance was 3 min in length.

*Post-Dance Questionnaire.* After viewing dances, the patrons completed a questionnaire which included individual photographs (head shots) of the dancers who had just performed for them. Patrons were instructed to complete the questionnaire answering an identical series of questions for each dancer/dance separately. The patrons were also asked if they had ever had a private dance with either of the two dancers they had just met. If they answered “yes,” they were eliminated from the analysis. No subject was eliminated from the analysis on the basis of his response to this question.

## Results

### *Patron Demographic Profile*

The 24 subjects ranged in age between 18 and 65 years with an average age of 30 years. The majority of the sample described themselves as “Caucasian,” along with two “African Americans,” two “Asians,” and one “Hispanic” male. All

subjects graduated from high school and 55% had attended college. The majority of subjects had an annual income of more than \$20,000, although 30% indicated a yearly income under \$20,000. Over half of the persons in the sample considered themselves to be politically “liberal” to “very liberal” and 30% identified themselves as politically “conservative” to “very conservative.” Seventy percent of the sample said they were “somewhat” to “very” religious, and 70% reported being either divorced or never married.

No subject reported having a business or personal relationship with anyone who works in this particular Deja Vu club or any Deja Vu club throughout the country. Only one subject reported having a business or personal relationship with someone in the exotic dance industry, but outside of Deja Vu. Only 15% of the subjects indicated that they had been to this particular exotic dance club before; the mean number of visits was 2. Eighty percent of the participants indicated that they have frequented other exotic dance clubs in the past; the mean number of prior visits to other clubs was 22.5. This mean was influenced by two respondents who reported having visited other clubs approximately 100 times. No subject reported being employed in any type of law enforcement occupation.

### *Dependent Variables*

*Erotic Communication.* The eight Erotic Communication items were summed to form composite scales for each subject (Cronbach’s alpha = .90). The items were scored according to an “agree–disagree” response scale where 1 = strongly agree and 8 = strongly disagree. The means for both levels of nudity are displayed in Table 1. A *t* test for paired samples revealed a significant difference between the nude and nonnude conditions on Erotic Communication,  $t(23) = -2.05$ ,  $p = .051$ ,  $r = .40$ . The direction of means indicate that patrons in the nude condition are more likely to be receiving an erotic message than patrons in the nonnude condition.

**Table 1.** Study 1: Mean Responses to Dances by Nudity

Response	Dancer nudity	
	Nonnude	Nude
Erotic Communication	31.25 <sub>a</sub>	26.54 <sub>b</sub>
Relational Communication	32.54 <sub>a</sub>	28.42 <sub>b</sub>
Affect adjectives		
“Annoyed”	6.79 <sub>a</sub>	7.21 <sub>a</sub>
“Anxious”	5.83 <sub>a</sub>	5.04 <sub>b</sub>
“Happy”	3.50 <sub>a</sub>	3.04 <sub>a</sub>
Social Messages		
“Women can express themselves as freely as men”	4.25 <sub>a</sub>	3.67 <sub>b</sub>
“‘The dancer was free to do what she wanted with her body.’”	3.63 <sub>a</sub>	2.96 <sub>b</sub>
“‘The female body is beautiful.’”	1.96 <sub>a</sub>	1.71 <sub>a</sub>

*Note:* The minimum value of the Erotic Communication scale is 8, the maximum is 64. The minimum value of the Relational Communication scale is 6, the maximum is 48. Lower numbers indicate higher agreement with the evaluative statement. Means in the same row that do not share subscripts differ at  $p < .05$  in the *t* test for paired samples.

*Relational Communication.* The six Relational Communication questionnaire items were summed to form composite measures for each subject (Cronbach's alpha = .92). As on the Erotic Communication scale, a lower score on this composite scale represents more agreement. As can be seen in Table 1, Relational Communication scores in the nude condition are lower than those of the nonnude condition,  $t(23) = -2.20, p = .038, r = .42$ , with respondents indicating greater reception of relational communication messages.

*Social Messages.* The three social message variables were summed to form a composite measure (Cronbach's alpha = .67) in the same manner as the Relational Communication and Erotic Communication scales. An ANOVA performed on the scale variable revealed significantly lower scores (representing more agreement) for the nude condition,  $F(1, 19) = 4.5, p = .047$ . The mean responses to the individual social message items are also displayed in Table 1. Analysis of the responses to the individual items revealed that respondents reported significantly stronger agreement with the statement that the dancer "was free to do what she wanted to with her body,"  $t(23) = -2.23, p = .036, r = .43$ , and the statement that "women are free to express themselves as freely as men,"  $t(23) = -2.07, p = .050, r = .40$ , when they viewed the dancers in the nude condition.

*Affect.* The responses to the affect items were scored according to the same "agree-disagree" response scale that was used in other portions of the questionnaire. A lower score on this scale indicates participant agreement with the adjective. The means for these dependent measures are displayed in Table 1. The means show that nudity did not alter the subjects' reports of happiness or annoyance. However, subjects did report feeling more anxious in the nude dance condition,  $t(23) = 2.44, p = .023, r = .46$ .

Dancer attractiveness and level of entertainment were treated as covariates in the analyses. In no case were these variables significantly related to the dependent variables.

## STUDY 2

### Method

#### *Subjects*

Thirty-three male patrons of the Little Darlings dance club of Las Vegas, Nevada, were recruited for participation in the study.

#### *Design*

A  $3 \times 2$  mixed, within-subjects and between-subjects factorial design was employed. In contrast to Study 1, in which nudity was treated as a within-subjects or repeated measures variable, nudity was treated as a between-subjects variable in the present study. The within-subjects variable in the present study was distance from patron. Each patron viewed dances either from a distance of (a) 4 feet, (b) 6 in., and (c) 6 in. with a brief touch from dancer.

### *Materials*

As in Study 1, respondents were first asked to read and sign a consent form. When they finished, they completed a pre-dance questionnaire which included demographic questions, as well as a question on their prior visits to exotic dance clubs.

*Post-Dance Questionnaire.* After viewing the dances, the patrons completed the questionnaire assessing Relational Communication and Erotic Communication, and temporary affect states. The scales are identical to those reported in Study 1. The Social Message questions were omitted in Study 2. We dropped these items for two reasons. This study was primarily designed to assess the effects of the distance manipulations and no hypotheses were advanced for the Social Message dependent variables. In addition, elimination of the scale allowed participants to complete the questionnaire more quickly.

### *Procedure*

The study was also conducted at the Little Darlings dance club, Las Vegas, Nevada. As in Study 1, all patrons visiting the club in the afternoon and early evening during August 19–23, 1995, were approached and recruited to visit a separate room to watch several dances. Instructions to patrons were modified to inform patrons that they would be asked to watch three rather than two dances.

As in Study 1, the eight dancers, all of whom were trained for this study by a professional choreographer, performed 3-min routines. Exactly the same routine was performed as in Study 1 with the following exceptions: In the present study, the patrons viewed performances at a 4-foot distance, a 6-in. distance, and a 6-in. distance with touch. In the 6-in./touch condition, the dancer briefly touched the man on the shoulders and with one long stroke down the arms. In the other distance conditions, she omitted this move.

To avoid confusion among the dancers, each dancer was asked to perform a three-dance sequence. A sequence was defined as an individual performance for each of the three patrons seated in separate alcoves. The dancer in a given sequence would perform (e.g., 6-in. distance) for one patron and then move to the next patron and perform the same dance (also 6-in. distance). The dance sequences were performed in a random order to control for order effects. Each subject saw three dances, one at each condition, each performed by a different dancer.

The between-subjects variable, nudity, was randomly altered in 2-hr blocks throughout the day.

After viewing dances, the patrons completed a questionnaire which included individual photographs of the dancers who had performed for them. Patrons were instructed to complete the questionnaire answering an identical series of questions for each dancer/dance separately.

## **Results**

### *Patron Demographic Profile*

Subjects ranged in age from 19 to 65 years with a mean of 35 years. The sample included 21 men who described themselves as “Caucasian,” 4 who indicated they

**Table 2.** Study 2: Mean Responses to Dances by Nudity

Response	Nudity	
	Nonnude	Nude
Erotic Communication	37.17 <sub>b</sub>	26.37 <sub>a</sub>
Relational Communication	37.04 <sub>b</sub>	30.86 <sub>a</sub>
Affect adjectives		
"Annoyed"	6.44 <sub>a</sub>	7.04 <sub>a</sub>
"Anxious"	6.29 <sub>a</sub>	5.65 <sub>a</sub>
"Happy"	4.33 <sub>b</sub>	3.02 <sub>a</sub>

*Note:* The minimum value of the Erotic Communication scale is 8, the maximum is 64. The minimum value of the Relational Communication scale is 6, the maximum is 48. Lower numbers indicate higher agreement with the evaluative statement. Means in the same row that do not share subscripts differ at  $p < .05$  in the  $t$  test for paired samples.

were "African American," 4 "Hispanic," and 3 "Asian." Ninety-nine percent of the subjects graduated from high school and 87% had attended college. Eighty-five percent of subjects reported an annual income of more than \$30,000. Forty-nine percent of the persons in the sample considered themselves to be politically "liberal" to "very liberal" and 45% identified themselves as politically "conservative" to "very conservative." Sixty-one percent of the sample said they were "somewhat" to "very" religious and 54% reported being either divorced or never married. Fifty-three percent of the subjects said that they had never been to this particular exotic dance club, although 85% said that in the past they had frequented other exotic dance clubs.

### *Dependent Variables*

In each analysis, the scales were subjected to a  $2 \times 3$  ANOVA with proximity as the within-subject factor and nudity as a between-subject factor. Means for all dependent measures are reported for the nudity manipulation in Table 2 and proximity manipulation in Table 3.

**Table 3.** Study 2: Mean Responses to Dances by Proximity

Response	Dancer-Patron proximity		
	6 in. w/touch	6 in.	4 feet
Erotic Communication	25.6 <sub>a</sub>	32.6 <sub>b</sub>	36.6 <sub>b</sub>
Relational Communication	28.4 <sub>a</sub>	34.6 <sub>b</sub>	38.6 <sub>c</sub>
Affect adjectives			
"Annoyed"	7.34 <sub>a</sub>	6.64 <sub>b</sub>	6.24 <sub>b</sub>
"Anxious"	5.56 <sub>a</sub>	6.09 <sub>a</sub>	6.19 <sub>a</sub>
"Happy"	2.73 <sub>a</sub>	3.82 <sub>b</sub>	4.42 <sub>b</sub>

*Note:* The minimum value of the Erotic Communication is scale 8, the maximum is 64. The minimum value of the Relational Communication scale is 6, the maximum is 48. Lower numbers indicate higher agreement with the evaluative statement. Means in the same row that do not share subscripts differ at  $p < .05$  in the  $t$  test for paired samples.

### *Erotic Communication*

*Nudity.* A repeated-measures ANOVA with proximity as a within-subject factor and nudity as a between-subject factor revealed nudity to have a significant effect on perceptions of Erotic Communication,  $F(1, 31) = 8.61, p = .006$ , omega-squared estimate of treatment magnitude = .187. Participants indicated they received a message of greater Erotic Communication from the dancers in the nude condition than in the nonnude condition.

*Proximity.* A repeated-measures ANOVA with proximity as a within-subject factor and nudity as a between-subject factor revealed a proximity main effect on Erotic Communication,  $F(2, 62) = 7.91, p = .001$ . Post-hoc analysis using a  $t$  test for paired samples revealed that Erotic Communication scores between the 4-foot condition and the 6-in. condition were not significantly different,  $t(32) = 1.35, p = .185$ . A seemingly significant difference was found between the 6-in./touch condition and the 6-in. condition,  $t(32) = 2.54, p = .016$  ( $r = .42$ ). However, a Bonferroni adjustment made to control for Type I error (a critical value of alpha .01 was assigned to each of the three tests, yielding an overall alpha of .03) suggests that this difference must be viewed as only marginally significant. A significant difference was found between the 4-foot condition and the 6-in./touch condition,  $t(32) = 4.18, p < .001$  ( $r = .60$ ).

*Nudity  $\times$  Proximity.* The analysis failed to reveal a significant interaction between nudity and proximity on Erotic Communication,  $F(2, 62) = 1.53, p = .224$ .

### *Relational Communication*

*Nudity.* A repeated-measures ANOVA with proximity as a within-subjects factor and nudity as a between-subjects factor revealed a significant main effect for nudity on Relational Communication,  $F(1, 31) = 8.15, p = .008$ , omega-squared estimate of treatment magnitude = .178. The direction of the means reveals that participants reported greater relational message communication in the nude dance condition than in the nonnude dance condition.

*Proximity.* The repeated-measures ANOVA with proximity as a within-subjects factor and nudity as a between-subjects factor revealed significant main effect for proximity on Relational Communication,  $F(2, 62) = 18.60, p = .001$ . Post-hoc analysis using a  $t$  test for paired samples revealed statistically significant differences between the 4-foot condition and the 6-in. condition,  $t(32) = 2.62, p = .013$  ( $r = .43$ ), between the 6-in./touch condition and the 6-in. condition,  $t(32) = 4.26, p < .0001$  ( $r = .61$ ), as well as between the 6-in./touch condition and the 4-foot condition,  $t(32) = 5.03, p < .0001$  ( $r = .67$ ). All of these differences are acceptable under the Bonferroni adjustment made to control for Type I error (a critical value of alpha of .01 was assigned to each of the three tests, yielding an overall alpha of .03).

*Nudity  $\times$  Proximity.* The analysis failed to reveal an interaction between proximity and nudity on the Relational Communication scale,  $F(2, 62) = 1.89, p = .160$ .

### *Affect Adjectives*

*Happiness.* A repeated-measures ANOVA with proximity as a within-subjects factor and nudity as a between-subjects factor revealed nudity to have a

significant effect on happiness,  $F(1, 31) = 5.07, p = .031$ , omega-squared estimate of treatment magnitude = .11. The direction of the means indicates that subjects were happier in the nude dance condition.

A repeated-measures ANOVA with proximity as the within-subjects factor and nudity as the between-subjects factor revealed proximity to have a significant effect on happiness,  $F(2, 62) = 8.82, p = .001$ . The  $t$  tests for paired samples revealed that no differences occurred between the 4-foot and 6-in. conditions,  $t(32) = 1.56, p = .129$ , but that there were differences in reported happiness between the 6-in. and 6-in. with touch conditions,  $t(32) = 2.95, p = .006 (r = .47)$ . The largest difference was found between the 4-foot and the 6-in. with touch conditions,  $t(32) = 3.80, p = .001 (r = .56)$ . The direction of the means indicates that men reported being happier as the dancer moved closer and then touched them.

*Annoyance.* A repeated-measures ANOVA with proximity as a within-subjects factor and nudity as the between-subjects factor revealed that proximity had a significant effect on whether or not the subjects reported feeling annoyed,  $F(2, 62) = 5.17, p = .008$ . Paired-sample  $t$  tests revealed that there was not a significant difference between the 4-foot and 6-in. conditions,  $t(32) = 1.28, p = .209$ , but there was a significant difference between the 6-in. and 6-in. with touch conditions,  $t(32) = 2.48, p = .018 (r = .41)$ . The largest difference was found between the 4-foot and the 6-in. with touch conditions,  $t(32) = 2.63, p = .013 (r = .42)$ . The direction of the means indicates that the subjects reported feeling less annoyed with closer dancer proximity and touch.

*Anxiousness.* A repeated-measures ANOVA with proximity as a within-subjects factor and nudity as the between-subjects factor revealed that proximity has no significant effect on whether or not the subjects reported feeling anxious,  $F(2, 60) = .88, p = .421$ . Similarly, the between-subjects ANOVA revealed that nudity did not affect the reported level of anxiousness,  $F(1, 30) = .944, p = .339$ .

## DISCUSSION

We hypothesized that nude dancing compared to semi-clad dancing would communicate a message of greater eroticism. The results from Study 1 confirm this expectation. The men judged nude and clothed dances to be communicating significantly different erotic messages. Specifically, patrons indicated that the nude dance conveyed a significantly more “erotic,” “sexy,” “alluring,” “seductive,” and “stimulating” message than the clothed dance. We also hypothesized that nude dancing compared with semi-clad dancing would communicate a message of greater relational intimacy to men. The results indicated that dancers who were nude were judged as more likely to have expressed messages of relational intimacy than clothed dancers. Specifically, subjects indicated that the nude dancer compared to the clothed dancer was expressing to them the fantasy that she wanted to be “romantically involved with them,” “thought they were special people,” “liked them more,” and was “personally interested in them.” In addition, we hypothesized that men who viewed the nude dancers would experience greater positive affect reactions than males who viewed semi-clad dancers. Male patrons reported more anxiousness

after a nude dance compared to clothed dances, but no differences were found on measures of happiness and annoyance.

Finally, we hypothesized that nude dancing would be more likely to convey social-cultural messages such as freedom of expression and the idea that the female body is beautiful than semi-clad dancing. Patrons indicated the nude compared to the non-nude dancers were more likely to be conveying the message that “women can express themselves as freely as men” and that the “dancer was free to do what she wanted with her body.”

The findings from Study 1 are consistent with the research reviewed above on men’s reactions to female nudity. We noted above that men report greater sexual arousal, increased interest, greater positive affect, and more favorable attitudes toward objects associated with female nudity. With the exception of a lack of increased patron happiness, the findings comport with the previous research. The fact that nude dancers also communicated a clearer message of intimacy than clothed dancers suggests that they were successfully producing performances of what has been termed “counterfeit intimacy” (Enck and Preston, 1988; Goffman, 1959). Essentially, these clubs are environments where men have the opportunity to view women, who are usually strangers, revealing private details of their anatomy. The fact that the dancer is nude may fuel the customer’s illusion that sexual intimacy with the dancer is possible—a message that is not conveyed in the clothed condition. Finally, our findings are congruent with the anthropological perspective that the dancers are expressing the social messages of liberation, messages of sexual freedom and female beauty.

In Study 2, we modified the design so that patrons saw three dances in one of six situations: 6 in. away and touching, 6 in. away and no touching, or 4 feet away, each under either nude or non-nude conditions. Dancer nudity produced similar results to Study 1. As in Study 1, dancer nudity had a significant impact on subjects’ affect and their perceptions of the erotic and relational messages being communicated by the dancer. The patrons indicated they received stronger messages of erotic communication from the dancers who were nude compared to those who were clothed. Results on the Relational Communication measure were also similar to the first study. Men who saw nude dances reported that the dancers were more interested in them personally, liked them more, considered them to be special people, and were more interested in them romantically. Results on the mood measures revealed that subjects who saw the nude dancers reported feeling “happier” than the patrons who saw clothed dancers, but differences on the other mood measures such as “annoyed” or “anxious” failed to reach significance.

In addition, we hypothesized that dancers would be judged as conveying a different message to patrons depending on the distance they performed from the patron. Specifically, we hypothesized that dancers who performed 6 in. from the patron (intimate zone) will be perceived as communicating a more intimate relational message than dancers performing 4 feet (personal-public zone) from the patron. Further, we proposed that dancers who perform 6 in. from the patron and touch him will be perceived as communicating a more intimate relational message compared to dancers who perform either 6 in. away and do not touch him or 4 feet from the patron.

The proximity factor manipulated in Study 2 produced differences on the erotic, relational, and mood measures. First, subjects reported that in the 6-in. touch condition, dancers were more likely to convey messages of erotic communication than in the 4-foot condition. No differences were found between the 6-in./no touch and 4-foot conditions for erotic communication. Thus, the strongest effect for erotic communication was found for the condition in which the dancer touched the patron. Dancer-patron proximity also affected judgments of relational communication. Subjects' evaluation of dancer relational communication differed at each of the three levels of proximity. Men rated the dancers who touched them as communicating significantly more relational intimacy than the dancers who remained at 6 in. and did not touch them. In turn, dancers who performed at 6 in. were judged to be communicating more relational intimacy than the dancers who performed at 4 feet. Third, the results for the mood measures showed that touching significantly altered respondents' reported affect, but subject mood was unaffected by dancing at the other proximities. Specifically, subjects who were touched by the dancers reported feeling significantly happier and less annoyed than those subjects who saw dancers at 6 in. with no touch and at 4 feet.

These findings were expected on the basis of previous research and theory on haptics and proxemics. We hypothesized on the basis of Hall's (1973) "zones" or distance categories for social interaction that a dance performed at 6 in. from the patron would communicate a more intimate message to men than the dances performed at 4 feet. Our data showed that patrons perceived a message of greater relational intimacy at the closer distances. A distance of 6 in. falls within Hall's "intimate zone." It is likely that men who viewed dances in the 6-in. condition and in the 6-in. with touch condition interpreted the dancers' close proximity and brief touch to be a sign of an intimate interaction.

Expectancy violation theory (Burgoon, 1978) would also suggest that men expect women who move into a zone of 6 in. to be advancing a message of intimacy. The patron may sense that this physical immediacy is a violation of the expected distance a stranger would keep, but the situation has several markers indicating that such a violation is favorable. First, the dancer is physically attractive and expectancy violations by attractive targets are interpreted in a positive light (Burgoon & Walther, 1990). Second, touch by an attractive target in an intimate setting is usually interpreted as a sign of positive support (Heslin, 1974; Heslin & Alper, 1983; Heslin et al., 1983; Jones & Yarbrough, 1985).

### Study Limitations

There are at least four possible limitations to the present study. First, it is unclear how far the findings of this study can be generalized to other venues, persons, or situations involving nude dancing. Second, we do not measure or compare the dancer's intended message with the men's perceived message. Third, it may be argued that we have merely observed the propensity among males to be interested in and aroused by a closely positioned nude woman. Differences in subject judgments about the messages conveyed by dancers are a function of this male attraction to nude women. Fourth, it is possible that we have merely demonstrated reductions

in intensity or graphicness of the messages conveyed and that we have not shown that a conceptually *different* message is being communicated by nude versus clothed dancers across the various distances. We discuss each of these limitations below.

We are hesitant to extend the findings of this study to other venues or situations involving nude dancing. While we are confident that the findings are generalizable to male patrons of adult nightclubs throughout the country, we are reticent to conclude that the findings will generalize to female patrons or male homosexual patrons of adult clubs. As we noted in the introduction, social psychological research suggests that female responses to male nudity are quite different than male responses to female nudity. Further, there is no reason to assume that female patrons would indicate that closer dancer proximity conveys more intimacy. Finally, reactions to male nudity among male homosexuals and ideas about proximity are likely to be far different from the conceptions of heterosexual males in the presence of females. Additional research is needed to clarify these issues before the findings of this study can be generalized to these populations.

Second, it can be argued that this experiment misses the important First Amendment question at stake in this debate because we did not formally test the message the dancer intended. Rather, we concentrated instead on measuring the message received by the dance club patrons. Traditionally, First Amendment law is concerned with the speaker's right to communicate, not necessarily the effects of that communication on others. A criticism of the study, therefore, may be that because we did not measure the intended message as a part of our design, we are unable to determine if the dancer thought she was communicating a different message under nude versus clothed conditions or at varying distances.

We assert that studying what the dancer thinks she is communicating is not directly responding to the legal question posed in *Barnes*. The argument made by Chief Justice Rehnquist is that requiring clothing does not deprive the dance of whatever erotic *message* it conveys. The focus of the law by the Chief Justice's assertion then is on the message being communicated, not the intentions of the speaker. A study designed to detect changes in speaker intention as a function of nudity or distance may be interesting, but it would fail, in fact, to address the constitutional question raised in *Barnes*. Furthermore, as social scientists, we have come to believe that we can most reliably investigate the characteristics of a message by examining its effects on an intended receiver rather than questioning senders about their intentions.

A third criticism of our study may be that instead of detecting changes in the perception of erotic or relational messages, we have merely observed the propensity among males to be pleased by a nude female body at close distances. It may be argued that we have only empirically demonstrated the obvious: that men who go into a nude dance club are happy to be as close as possible to naked women and that the positive evaluations of the experience of being close to a nude woman in some way drive or motivate patrons to make congruent evaluations concerning intimacy and eroticism. If this were the case, however, we might have expected patrons to respond uniformly to each of the dependent measures. Instead, we found that as the dancer moved from 4 feet to 6 in., men reported that the dancers were more likely to express relational intimacy, though we found no differences in erotic

messages or men's reported affect in this condition. We consider this lack of uniformity in subject responses among the dependent variables contrary to the notion that men's positive reaction to the women at a close proximity simply carried over to every evaluation of the dancers.

Lastly, there may be concern that our dependent variable measures were not sensitive to qualitative changes in message content—rather, they simply measured reductions in intensity or graphicness of the messages conveyed by the dances. Inadvertently, we may simply have confirmed Chief Justice Rehnquist's assertion that banning nudity “simply makes the message slightly less graphic,” rather than changing it conceptually.

Exactly what constitutes a reduction in the intensity of a message as opposed to the perception of an altogether different message is an intriguing problem in the social sciences.<sup>8</sup> There are no hard and fast rules for judging when an effect is merely a subtle quantitative shift or a more “meaningful” change to a qualitatively different outcome. We would argue that the degree of a change that must be present in a dependent variable before we call it noticeably “different” in the area of social perception or attitude change is often a matter of several factors. Among the most important considerations are the statistical significance, reliability, or replicability of the finding, the size of the effect, and the presence of accompanying changes in other variables or social psychological processes logically related to the outcome. A finding or an effect that can be reliably produced, that is moderate to large in magnitude, and accompanied by changes in other variables conceptually related to the dependent variable, may be said to represent a “meaningful” effect. Although the effect is measured in increments or registered in terms of quantitative gradations of intensity, it may be representative of new or “different” state due to its reliable, substantiality, and consistent relationship with other social psychological processes.

In this study, we have established that the changes in erotic and relational

<sup>8</sup>The inference that changes in intensity of responses are representative of fundamental shifts in perceived meaning are not unique to this study, but endemic to the interpretation to findings in many social science inquiries. In the fields of cognitive, clinical, and social psychology there are many examples of changes in the meaning of a stimulus as a result of subtle changes in its intensity or gradation. For example, it is well documented in the field of cognitive psychology that the intensity of a light can be so low as to fall below the point where a human can report seeing it. However, when that light is made only slightly brighter, most humans report that they detect it. This threshold is termed “just noticeable difference” (JND) and to the observer it is the difference between seeing “darkness” or “lightness.” It is important to note that after this threshold of intensity is crossed, the observer does not report seeing a “shade of lightness” or a stimulus that is “less dark.” Instead, the observer reports a qualitative difference, seeing a light when he or she did not see it before. Similarly, it can be argued that perception of change in the intensity of messages in the present study may reflect a psychological shift to a qualitatively different message rather than a mere shift in message intensity. Another area of social science inquiry where changes in intensity measured quantitatively are held to represent qualitative differences include the study of political attitudes and voting. It is generally accepted practice, for example, to use Likert scales or other measures that ask respondents to indicate the intensity of their beliefs and to interpret a change in intensity on these scales as an indication of a substantive change in attitude in areas such as political attitudes and voting. A potential voter may hold a positive or negative view of a political candidate and his or her positions on the issues and this approval increases or decreases in intensity. Eventually, the intensity of the approval or disapproval reaches a threshold at which time the person decides to either vote or not vote for the candidate. While changes in the attitude toward the candidate are measured in intensity, there is a critical point at which the voter's disapproval crosses to approval and an altogether different attitude toward the candidate takes hold in the voter's mind.

messages due to our manipulation of nudity and dancer proximity are reliable. Further, at least with regard to one indicator of “meaningful” change, effect size (a calculation of the magnitude of change in the dependent variable caused by the independent variable), the findings represent moderate to large effects for the social sciences.

Further strengthening our argument that differences in intensity can be interpreted as important changes in meaning is the fact that other logically related variables are also altered. Shifts in the degree of eroticism and relational intimacy reported by men exposed to the dancers were accompanied by shifts in other psychological processes. Specifically, differences in patron detection of intensity of message communication across the conditions of the experiment were accompanied by a changes in affect. In Study 2, for example, patrons not only reported detecting greater erotic communication, but also reported more happiness and less annoyance in the 6-in. with touch condition compared to other conditions. In this same study patrons in the nude condition also reported less anxiety compared to men who viewed semi-clad dancers. This change in affect, in combination with the change in the perception of the message being communicated, suggests that the patron is experiencing something more than a mere shift in intensity of the message. Not only does the patron indicate that he is receiving an erotic message of greater intensity, but he also “feels” differently in one condition versus another. As a result of the shift in intensity of the message, a “new” or “different” psychological state is created in the patron rather than a mere extension of an existing state.

A relatively simple procedural modification may allow us more clearly to demonstrate changes in meaning. Future research would benefit from the use of a semantic differential scaling procedure in which respondents are asked to choose between two opposite adjectives that would provide additional documentation of the differences between messages communicated in nude and clothed, close or distant conditions. Researchers could employ an instrument in which subjects respond to opposite terms representing polar extremes along a meaning dimension. Subjects could be asked to respond to a numerical continuum anchored by opposite adjectives. For example, a scale could be anchored by the word “erotic” and, at the other end of the continuum, “frigid,” “chaste,” or “repulsive.” The benefit of this questionnaire technique is that, by definition, different meanings anchor each end of the scale and changes in the direction of responses would represent a clearer shift toward an alternate message.

### **The Legal Implications of Rejecting the “Null” Hypotheses in *Barnes and Ino, Ino, Inc.***

In *U.S. v. O’Brien* (1968), the Supreme Court ruled that if the government can assert that an important interest is at stake it may regulate symbolic behavior if under part (c) of the test the restriction is “unrelated to the suppression of free expression. . . .” The courts in both *Barnes and Ino, Ino, Inc.* argue that the restrictions imposed by law are not directed at the expressive content of the erotic dance, but, rather, at the presentation of such performances either in the nude or too close to the patron. Their conclusion, in tandem, is that precluding nudity and

close proximity only affects “non-communicative elements” of erotic performance dance and does not, therefore, affect or impinge upon the content of such erotic expression. Overall, data from both of our studies strongly suggest that the courts in both *Barnes* and *Ino, Ino, Inc.* have erroneously concluded that regulating nudity and dancer proximity does not substantially hinder the dancer’s message.

Specifically, Chief Justice Rehnquist offered the opinion in *Barnes* that “the requirement that the dancers don pasties and a G-string does not deprive the dance of whatever erotic message it conveys.” The results of Studies 1 and 2 suggest that dancers’ donning pasties and a G-string *does* deprive the dance of a statistically significant amount of eroticism and substantially alters the message conveyed when the dancer is nude. We also observed substantial changes in the relational and social messages of dances performed nude versus clothed.

Additional null hypotheses were offered by judges when ruling on whether proximity affects a dancer’s ability to convey an erotic message. The Washington State Supreme Court (*Ino, Ino, Inc. v. City of Bellevue*, 1997) reasoned that a 4-foot distance between the dancer and the patron was sufficient “to see the dancer’s entire body and expressive activity,” and thus was not a regulation of the content of the dancer’s message. The results of Study 2 suggest that keeping dancers at a certain distance also deprives the dance of a significant amount of the erotic message conveyed when the entertainers are closer to the patron. We also observed substantial changes in the relational messages of dances performed at 4 foot, and at 6 in. plus touch from the patron.<sup>9</sup>

In both studies, for both the nudity and proximity effects, the changes in the perception of the messages communicated by dancers are “moderate” to “large” by social science standards. Given the reliability and size of the effects, expert witness testimony concerning the results of these psychological studies could be offered to courts to establish that the current attempts by the government to regulate the nudity and distance components of erotic dance violate the First Amendment guarantee of freedom of speech, in that such regulations are directed at the *content* of the expression itself.

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<sup>9</sup>If the data were to indicate that patrons still view these dances as erotic when restricted, just less so, the study results may speak more clearly to part (d) of the *O’Brien* test rather than part (c). With regard to part (d), Justice Rehnquist reasoned that requiring the dancers to wear at least “pasties” and a “G-string” was narrowly tailored to achieve the state’s purpose, without significantly abridging First Amendment freedoms. The question is whether this is, in fact, more than an incidental restriction greater than essential to the furtherance of the state’s interest. This is essentially a normative question concerning balancing the state’s interest in addressing a significant social problem by regulating speech against the citizen’s First Amendment rights. The question of how to balance these competing interests is beyond the scope of social science inquiry.

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