

Courtship compliance: The effect of touch on women's behavior

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Previous research has shown that light tactile contact increases compliance to a wide variety of requests. However, the effect of touch on compliance to a courtship request has never been studied. In this paper, three experiments were conducted in a courtship context. In the first experiment, a young male confederate in a nightclub asked young women to dance with him during the period when slow songs were played. When formulating his request, the confederate touched (or not) the young woman on her forearm for 1 or 2 seconds. In the second experiment, a 20-year-old confederate approached a young woman in the street and asked her for her phone number. The request was again accompanied by a light touch (or not) on the young woman's forearm. In both experiments, it was found that touch increased compliance to the man's request. A replication of the second experiment accompanied with a survey administered to the female showed that high score of dominance was associated with tactile contact. The link between touch and the dominant position of the male was used to explain these results theoretically.

Touching the arm or shoulder of a person for 1 or 2 seconds when asking for a favor seems trivial. However, numerous studies have shown that such brief non-verbal contact significantly increases compliance. Brockner, Pressman, Cabitt, and Moran (1982) showed that when making a request to give back a dime left in a phone booth, compliance increased from 63% in the no-touch control situation to 96% when the request was accompanied by a light touch on the arm. Similarly, when asking for a dime, passers-by agreed in 51% of the cases when touched and 29% when no contact was made (Kleinke, 1977). In the same way, the percentage of petition signers for the

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renovation of a town's railroad station for use as a science museum increased from 55% in the no-touch control condition to 81% when a light touch was made during the solicitation (Willis & Hamm, 1980). Hornik and Ellis (1988) found that touch increased compliance for a mall intercept interview about television and advertising. Hornik (1987) observed that touch increased the number of individuals willing to respond to a street survey and increased compliance in answering a follow-up questionnaire.

Some studies have shown that, when lightly touched, people are more persistent in executing a difficult task consisting of answering a long questionnaire on very provocative subjects (Nannberg & Hansen, 1994). Likewise, a waiter or a waitress in a restaurant can increase the amount of a tip by simply touching a client (Crusco & Wetzel, 1984; Guéguen & Jacob, 2005; Hornik, 1992b; Lynn, Le, & Sherwyn, 1998; Stephen & Zweigenhaft, 1986). In the same way, it has been found that tactile contact increases compliance to commercial requests and positively affects consumer behavior. Willingness to taste products increases when shoppers are touched by the employees making the request, and leads to an increase in the selling rate of the product (Guéguen & Jacob, 2006; Hornik, 1992a; Smith, Gier, & Willis, 1982). Similarly, Kaufman and Mahoney (1999) showed that when touched by a waitress, bar patrons consumed more alcohol than did patrons who were not touched.

Helping behavior is also influenced by touch. Goldman and Fordyce (1983) found that when people were touched by a confederate during an interview, greater helping behavior was observed toward the confederate who dropped several questionnaires on the ground. People who were touched agreed more favorably to answer telephones for a charity telethon to benefit physically disabled children (Goldman, Kiyohara, & Pfannensteil, 1985). In the same way, light tactile contact encourages positive behavior in an educational context. Guéguen (2004) found that a light touch encouraged students to come to the blackboard more willingly when presenting a statistical demonstration to the class.

In short, research indicates that touch has a positive effect on compliance. It would then be interesting for social psychologists to evaluate the effect of touch in a new context where this non-verbal variable on compliance has never been explored: courtship behaviors. Numerous studies have shown that non-verbal behaviors serve as courtship signals (Moore, 2002). Moore (1985) found that in a mate-relevant context, women who were approached by men had previously exhibited higher average frequencies of non-verbal displays toward the man such as smiling, tossing the head, caressing an object, flinging back their hair, etc. Moore and Butler (1989) found that the exhibition versus non-exhibition of such non-verbal behaviors could predict the likelihood of men approaching women. If female non-verbal solicitation signals exert a positive effect on male approach, the reverse effect is also

observed. Renninger, Wade, and Grammer (2004) found that some non-verbal behaviors displayed by men led them to be more favorably accepted by women. In their research, using unobtrusive observation, the authors found that male non-verbal behaviors in singles bars, such as open-body positions, automanipulations (rubbing one's face, scratching), gesticulation patterns (talking with one's hands), and glancing behavior, were statistically more frequent among the group of men who successfully made contact (i.e., a woman agreed to have a drink with the man, to chat with him ...) than among the group who failed to make contact. These results indicate that a woman's initial courtship decision is influenced by the non-verbal signals exhibited by men. Therefore, we could expect that a larger range of non-verbal behavior including touching behavior could have a positive effect on men's contact. Since tactile contact was associated with greater compliance to a request, it was hypothesized that a man's courtship solicitation toward a woman would be more favorably accepted than the same solicitation without tactile contact.

Two experiments were conducted to test this hypothesis. A 20-year-old male confederate was instructed to touch (or not) a young woman lightly on her forearm when formulating his courtship request—that is, a request to dance with him in a nightclub or to give him her phone number when asked in the street. In each experiment, the female target's compliance was the dependent variable. Given the similarities in procedures, I present the Methods and Results of both experiments together.

METHOD

Experiment 1

Participants. The participants were 120 young women (ranging in age from 18 to 25), single, who were chosen at random in a nightclub in the city of Vannes. This medium-sized town (more than 70,000 inhabitants) is located in the west of France on the Atlantic coast of Brittany and draws a young tourist crowd. The experiment was conducted continuously in July 2004 for a period of 3 weeks.

Procedure. The experiment was carried out when the slow songs were played in the nightclub (songs with a slow tempo and romantic lyrics were played twice during the night for 15–20 minutes in order to encourage flirting and encounters). A 20-year-old male confederate was instructed to invite a participant to dance with him. In a previous work, the physical attractiveness of the confederate was rated by 20 young women who were instructed to evaluate the attractiveness of a group of 10 young men. The

evaluation was made by using a photo taken of the full face of each target. The confederate was then chosen by the experimenter because he received a positive judgment from the women (highest quartile of the distribution). The experimenter explained some information about the objective of the experiment and sought the aid of the confederate. After agreeing, the confederate was given instructions about his role-playing. However, he was not informed about the effect of touch on compliance to a request. The same verbal solicitation was made by the confederate in both the control and the experimental conditions: "Hello. My name's Antoine. Do you want to dance?" This verbal solicitation was used because a previous survey showed that it approximates the formula commonly used in nightclubs. When making his request, the confederate touched the participant lightly on her forearm in the experimental condition. If the participant refused, the confederate was instructed to say "Too bad. Maybe another time?" Then the confederate was instructed to move 2 or 3 meters away and to solicit another young woman. Two or three meters was the distance used because in the nightclub where the experiment was carried out the level of music was very high, the room was in a half-light situation when the procedure was performed, and the nightclub was full to bursting when the experiment was carried out. Moreover, we found no difference in the rate of compliance at the beginning of the experimental session and at the end of the session. If women had been aware of the nature of our intervention, we would have expected that low levels of acceptance of the request would occur as the evening progressed. Such effect was not observed, which led us to suspect that later participants were unaware of the nature of the intervention.

If the participant accepted the confederate's solicitation, the confederate was instructed to debrief her. She was told that she had participated in an experiment on social behavior in a nightclub. A preprinted information form was then given to the participant, who was asked to provide information for the experiment (name, age, address, phone number). Information concerning the role of the experimenter and our laboratory website was also indicated on the form. This information procedure was used in accordance with the suggestion of the ethical committee of the laboratory when the three experiments were presented to the committee. In the preprinted information form that was given to the participant, the address of the website presenting this project was printed and the personal phone number of the director of the laboratory was given. To date (the first experiment was done in July 2004) no participant had phoned to obtain information about this research. In the third experiment (see below), some of the participants proposed their participation in future research. In the three experiments the young male confederate had reported that when he informed the participant about the scientific objective of his request, most of the participants laughed.

The confederate ended the contact by saying, “Many thanks for the dance. I hope that we could meet another time. Bye!” As in the control condition, the confederate then moved away in order to solicit another young woman.

Experiment 2

Participants. The participants were 240 young women (ranging in age from 18–25), chosen at random while walking alone in a pedestrian zone in the same city where the first experiment was conducted.

Procedure. The experiment was carried out on a particularly sunny day in June 2005. In this experiment, the participants were selected following a random assignment in which the confederates were instructed to approach the first young woman in the age group (18 to 25) who appeared alone in the pedestrian zone where the experiment was carried out. In this experiment, three 20-year-old confederates were used. As in the first experiment, the physical attractiveness of the confederates was evaluated by a group of young women. The confederates were selected on the basis of the high physical attractiveness score each one received. This condition was used because pre-test evaluation showed that it was difficult to obtain the phone number from young women in the street. This avoided creating conditions where the ceiling effect of compliance was low.

Each of the confederates acted individually. The same verbal solicitation was made by the confederate in both the control and the experimental conditions: “Hello. My name’s Antoine. I just want to say that I think you’re really pretty. I have to go to work this afternoon but I wonder if you would give me your phone number. I’ll phone you later and we can have a drink together someplace.” When making the request in the experimental condition, the confederate touched the participant lightly on her forearm for 1 second, whereas no tactile contact was initiated in the control condition. In both conditions, after formulating his request, the confederate was instructed to wait 10 seconds, and to gaze and smile at the participant. If the participant accepted the confederate’s request, the confederate debriefed her. She was told that she had participated in an experiment on social behavior in a courtship context and, as in the first experiment, was given a preprinted information form. The encounter ended with the confederate saying “Thanks for your participation and I’m sorry that I’ve taken up your time. Perhaps we could meet another time. Bye!” If the participant refused, the confederate was instructed to say, “Too bad. It’s not my day. Have a nice afternoon!” and to wait for another participant.

TABLE 1
 Percentage of compliance to the confederate's request in Experiments
 1 & 2 according to the touch/no touch conditions

	<i>Experiment 1</i> <i>(dancing request)</i> N=60 in each group	<i>Experiment 2</i> <i>(phone request)</i> N=120 in each group
Touch	65.0% (39/60)	19.2% (23/120)
No touch	43.3%. (26/60)	10.0% (12/120)

RESULTS FOR EXPERIMENTS 1 AND 2

The dependent variable used in these two experiments was evaluated by the number of participants who agreed to the request. The results obtained in the two experiments and in the two experimental conditions are presented in Table 1 below.

A 2 (touch/no touch) \times 2 (compliance/no compliance to the request) chi-square test was used to analyze the data in the two experiments. In the first experiment, it was found that touch increased compliance to the confederate's dancing request, $\chi^2(1, 120)=5.67, p < .02$; OR=2.43. In the second experiment, where the request consisted in obtaining the phone number of a young woman in the street, a positive effect of touch was also found $\chi^2(1, 240)=4.05, p < .05$; OR=2.13. In both experiments, light tactile contact used when formulating the request increased target compliance. The effect size measured by the Odds Ratio (OR) show that the effect of touch was slightly moderate (Cohen, 1988).

DISCUSSION

As hypothesized, our results showed that a man's courtship solicitations are more favorably accepted by a woman when the request is accompanied by light tactile contact. We believe that these results have some practical and theoretical interest for social scientists. First, these results confirmed previous studies where the effect of touch on compliance was tested (Brockner et al., 1982; Goldman & Fordyce, 1983; Goldman et al., 1985; Hornik, 1987; Hornik & Ellis, 1988; Kleinke, 1977; Smith et al., 1982; Willis & Hamm, 1980). None of the previous was carried out in a courtship context. Finding a positive effect of touch in this context confirms the powerful effect of tactile contact on compliance. Second, the effect of touch obtained in two different courtship experiments has some theoretical interest. Why did women who were touched for 1 second on the forearm by an attractive confederate accept his courtship request more favorably?

The effect of touch accompanying such a request could be explained by the literature, which shows a link between touch and dominance. Research

shows that touching is often initiated by individuals of higher status toward individuals of lower status (Hall, 1996; Henley, 1973). The role of touch as an indicator of status was supported in the literature (Major & Heslin, 1982; Summerhayes & Suchner, 1978). These experimenters asked their participants to examine a series of still photographs portraying dyadic interactions. In half of the cases, one person is obviously touching the other. The results show that in the touch condition, the “toucher” was evaluated as more dominant than the “touchee,” whereas no difference was found between the two persons when no contact occurred. Thus, it appears that who touches whom is associated with dominance. In male–female interactions, the differential effect of status is also manifested by tactile contact. Several unobtrusive observations made by Henley (1973) and Hall (1996) found that men, who have a higher status than women and therefore could be considered as dominant, initiated tactile contact toward women more often than women initiated tactile contact toward men. Such a difference in status manifested by tactile contact is also demonstrated by the observation of same-handed heterosexual couples while walking together. It was found that significantly more women were on the males’ preferred side (the dominant hand) than expected by chance (Borden & Homleid, 1978). According to the authors, since the touching was presumably motivated by affection between the men and the women, “the position while touching reflects a command of the relationship by the male partner” (p. 72). Similar results were confirmed by the work of Chappell et al. (1998, 1999) while observing more than 10,000 male–female couples in the street. They found that men used their dominant hand more often than did women. They also found that the rate of using the dominant hand by the male decreased when the woman was taller (here, more dominant because of her height).

Compliance is also associated with dominance. In a recent experiment, Guéguen (2002) showed that a higher social status, operationalized by the interviewer’s attire, had a positive impact on the participant solicited when status was associated with tactile contact. In this experiment, participants were solicited for a street survey. The male interviewer wore clothes that conveyed the image of an individual of high, low, or intermediate status. While formulating his request, he touched (or did not touch) the participant solicited. Results show that the touch condition, compared to the non-touch condition, increased compliance to the request, while higher status associated with touch resulted in obtaining more compliance than touch associated with intermediate status. A stronger effect of touch in combination with higher status was obtained.

Taken together, these studies exploring the relation between touch and dominance seem to show that tactile contact may express higher status or dominance in heterosexual couples. Furthermore, these studies could in themselves not explain why, in a courtship context, male tactile contact had a

positive effect on female compliance behavior. Some researchers suggest that women prefer men of high status when looking for a dating partner and romance. In a recent evaluation of long-term mate preferences that involved several thousand participants from 37 cultures, it was found that women attached greater valuation to the social status of men (Shackelford, Schmitt, & Buss, 2005). Dominance, a dimension traditionally correlated with social status, is also considered by women as an important factor in mate preference. Sadalla, Kenrick, and Vhershure (1987) found in four studies that the dominant male (a confederate in a 1-minute video who expressed dominant gestures) was evaluated by female university student evaluators as more sexually attractive and was considered to be a more desirable dating partner. For the authors, such women's preference for dominant behavior expressed by males could be explained in two ways. First, by considering the evolutionary theory, women prefer men who can provide material support and protection for themselves and for their children (Buss, 1989). A dominant male is more likely to demonstrate such qualities and, hence, to be perceived by women as being more attractive than a less dominant male. A second reason could explain women's preference for dominant men. According to Sadalla et al. (1987), this preference is connected to social expectations in our society. Males are expected to act in a dominant way because data suggest that dominance hierarchies are universal in human societies (Lumbsen & Wilson, 1981) and dominance appears to be an attribute of the male role in all human cultures (Maccoby & Jacklin, 1974). So men who act in a role-appropriate manner by exhibiting dominant behaviors should be perceived as more attractive than men who exhibit non-appropriate behaviors (non-dominant). As dominance is related to non-verbal behaviors, such behaviors, when exhibited by a male, lead the female to perceive him as more attractive and to comply more favorably with the male's solicitation.

While the experimental effect of touch was only tested in a courtship context in this experiment, previous studies have found that other non-verbal behaviors, related to male dominance, are associated with more successful contact. It has been found that space maximization movements are also associated with dominance. The most dominant members of a group command the largest amount of space (Alcock, 1993). In a recent observational study conducted in various singles bars by Renninger et al. (2004) it was found that men who successfully made long contact with women (in their experiment more than 1 minute of conversation) exhibited more space-maximization movements than men who did not make long contact with women. According to the authors, non-verbal behaviors of men in such courtship contexts could help them to exhibit their status and societal dominance to women. Because higher status and dominance are associated with greater preference for women (Shackelford et al., 2004), men who exhibit non-verbal behaviors associated

with high status and dominance would have more opportunities to make positive “contact” with women. In our experiment, because touch is associated with high status and dominance, the tactile contact of the confederate results in increasing the probability that woman would accept his courtship solicitation.

In order to test the generalizability of our findings and to explore the link between touch and dominance behavior, a third experiment was conducted. In this experiment, after the male confederate left the young female she was asked by a female confederate to respond to a survey that requested her to evaluate the male confederate on various dimensions including dominance.

EXPERIMENT 3

Participants

The participants were 160 young women (age range between 18 and 25 years), selected randomly, walking alone in a passerby-street of the same town where the first and second experiments were conducted.

Procedure

The experiment was conducted during a particularly sunny day in May 2006. This experiment was an exact replication of the second experiment presented above. The same male confederate from the previous two experiments was employed in this study and the same procedure was used. Furthermore, in this experiment, the participant was not informed by the male confederate that the solicitation was in fact an experiment. So, 30 or 40 seconds after the male confederate had left the participant, a young female confederate who was standing near the area where the experiment was carried out approached the participant saying, “Excuse me but I would like to know if you would respond to a questionnaire concerning the young man who approached you 1 minute ago. We actually are conducting research on dating and romantic love relations and this young man works for us. Would it be okay if you completed a short survey to evaluate your impression of this young man?” If the confederate agreed to the request (147 of the 160 participants accepted the solicitation, with no difference in the two experimental conditions) then the female confederate administered the questionnaire face-to-face. She asked the participant to evaluate the young male confederate with the help of three semantic scales with two opposite adjectives. Each scale was graduated with nine steps. As in Sadalla et al. (1987) we used two semantic scales related to dominance: [1] no dominance–[9] no dominance; [1] weak–[9] strong. As in Sadalla et al.’s research the last scale was used to evaluate the sexual attractiveness of the male confederate—[1] very low sexual attractiveness–[9] very high sexual

attractiveness. After responding to the questionnaire, the female confederate thanked the participant, debriefed her, and gave her a card on which information was printed to enable her to obtain information about the experiment (address, phone number, identity and functions of the experimenter, and our laboratory website).

Results

When touched, 27.5% (22/80) of the participants agreed with the confederate's request, whereas only 13.8% (11/80) agreed when no tactile contact occurred during the solicitation. The difference between the two experimental conditions was statistically significant, $\chi^2(1, 160)=4.62$, $p < .04$; OR=2.38. Again it was found that a slight tactile contact had a positive effect on the responses to the confederate's request. Furthermore, the effect size (Odds Ratio=OR) again appeared to be moderate.

The results of the three different scales used to evaluate the male confederate by the participants are presented in Table 2. The means of the three scales are presented according to whether the participant agreed or not to give her phone number to the male confederate, and according to whether she was touched or not by him.

A 2 (touch/no touch) \times 2 (compliance/no compliance) ANOVA was performed to analyze our data. For the dominance scale, a main effect based on compliance was found, $F(1, 143)=24.28$, $p < .001$, $\eta^2=.145$, and a slight effect based on touch was found, $F(1, 143)=3.78$, $p < .06$, $\eta^2=.03$, but no interaction between the two factors was found, $F(1, 143)=1.78$, *ns*, $\eta^2=.01$. Two by two comparisons showed that with the compliant participants, touch had a slight significant effect compared to no-touch, $t(27)$, one-tailed=1.57, $p < .07$, and that no difference was found according to touch/no-touch condition with the non-compliant participants, $t(27)$, one-tailed=0.7, *ns*.

For the second dimension (weak/strong) we performed the same analysis. A main effect of compliance was found, $F(1, 143)=16.88$, $p < .001$, $\eta^2=.106$,

TABLE 2
Means (SD) of the three rating scales

Rating scale	Compliance to the request		No compliance to the request	
	Touch (N=19)	No touch (N=10)	Touch (N=54)	No touch (N=64)
Dominance	7.37 (0.95)	6.70 (1.34)	6.09 (0.92)	5.97 (0.89)
Strength	7.05 (0.91)	6.70 (0.67)	6.26 (0.76)	6.09 (0.79)
Sexual attractiveness	7.79 (0.71)	7.50 (0.52)	4.85 (0.78)	4.29 (1.06)

Means (standard deviation in brackets) of the three rating scales according to the compliance/non-compliance to the request in the touch/no-touch condition (high scores were associated with a high level of the dimension measured).

whereas no main effect for of touch, $F(1, 143)=2.31$, *ns*, $\eta^2=.016$, and no interaction between the two factors was found, $F(1, 143)=0.32$, *ns*, $\eta^2=.002$. Two by two comparisons showed that with the compliant participants, touch had no significant effect compared to no-touch, $t(27)$, one-tailed=1.07, *ns*, nor was there a difference based on touch/no-touch condition with the non-compliant participants, $t(27)$, one-tailed=1.22, *ns*, such that those who touched were perceived as more sexually attractive.

For the third dependant variable (sexual attractiveness), a main effect for compliance was found, $F(1, 143)=201.89$, $p < .001$, $\eta^2=.635$. A main effect of touch was found, $F(1, 143)=4.71$, $p < .04$, $\eta^2=.032$. There was no interaction effect, $F(1, 143)=0.47$, *ns*, $\eta^2=.003$. Two by two comparisons showed that with the compliant participants, touch had no significant effect compared to no-touch, $t(27)$, one-tailed=1.14, *ns*, whereas a difference was found according to touch/no-touch condition with the not-compliant participants, $t(126)$, one-tailed=3.29, $p < .001$.

Correlational analyses (Bravais-Pearson's coefficient) were performed between the three dependant variables and compliance. The correlation matrix is presented in Table 3. It appears that the responses on the three scales given to the participants were highly correlated. It also appears that compliance is highly correlated with these three dependant variables, mainly sexual attractiveness which was highly correlated with compliance. Furthermore differences exist among all correlations. The correlation between sexual attractiveness and compliance ($r=.80$) was significantly

TABLE 3
Correlation matrix between the three scales and the rate of compliance

	<i>Compliance</i>	<i>Dominance</i>	<i>Strength</i>	<i>Sexual attractiveness</i>
<i>Compliance</i>				
Pearson's coefficient	1.00			
Probability (2-tailed)				
<i>N</i>	147			
<i>Dominance</i>				
Pearson's coefficient	.43	1.00		
Probability (2-tailed)	<.001			
<i>N</i>	147	147		
<i>Strong</i>				
Pearson's coefficient	.36	.60	1.00	
Probability (2-tailed)	<.001	<.001		
<i>N</i>	147	147	147	
<i>Sexual attractiveness</i>				
Pearson's coefficient	.80	.53	.43	1.00
Probability (2-tailed)	<.001	<.001	<.001	
<i>N</i>	147	147	147	147

different ($\chi^2=29.37, p < .001$) from the correlation between compliance and dominance ($r=.43$), and was significantly different ($\chi^2=37.5, p < .001$) from the correlation between compliance and strength ($r=.36$). Furthermore no significant difference was found between these two latter correlations ($\chi^2=0.49, p=.48$). Thus it seems that sexual attractiveness is more strongly associated with compliance with the courtship request than the two other dimensions.

To test whether the effect of touch and compliance was or was not mediated by dominance, strength, or sexual attractiveness, two multiple regression analysis were performed. In the first multiple regression, tactile contact was regressed with dominance, strength, or sexual attractiveness. The ANOVA performed with the regression confirmed the effect of touch on the three variables, $F(3, 143)=4.40, p < .01$, but it was found that sexual attractiveness was the only significant regressor in this analysis ($B=-.083, SE_B=.031, \beta=-.26, t=-2.72, p=.007$). Thus it appeared that the effect of dominance and strength was mediated by sexual attractiveness.

In a second regression, compliance to the request was regressed with dominance, strength, or sexual attractiveness. The ANOVA performed with the regression confirmed the effect of compliance on the three variables, $F(3, 143)=87.38, p < .001$. Again, sexual attractiveness was the only significant regressor in this analysis ($B=-.205, SE_B=.015, \beta=-.80, t=-13.47, p < .001$). Thus it appeared that the relation between compliance and the dominance or strength dimension was mediated by sexual attractiveness.

DISCUSSION

In the third experiment we found that touch led to increased compliance with a romantic request. Such results confirm the pattern of data found in our first and second experiments. Why were such differences between touch and no-touch groups found in our experiments? We have hypothesized that touch enhanced compliance to a romantic request because tactile contact is perhaps associated with the perception of higher dominance. The results show that our prediction was partially confirmed. We found that touch was associated with higher dominance score. Such results confirm the data of previous studies, which found that in impression formation, tactile contact in an observed dyad is associated with higher dominance score attributed to the "toucher" (Major & Heslin, 1982; Summerhayes & Suchner, 1978). In the third experiment, the perception of the "toucher" by the "touchee" is congruent with the results of these latter studies using a series of photographs portraying dyadic interactions. Furthermore, despite the higher dominance score associated with tactile contact, we found no significant difference between the young women who were touched and accepted the confederate's request and the young women who were not touched by the confederate but agreed with the request ($p < .07$). The

means were in the predicted direction but did not reach conventional levels of statistical significance. Furthermore, such absence of statistical difference could be explained by the few data available in the two groups ($N=19$ in the touch condition and $N=10$ in the no-touch condition). Such small samples explain the lower score of compliance to the confederate request. With larger samples, it would be possible to obtain a difference at the .05 level degree of acceptance. The effect size could predict this significant effect because the difference between the two variables (Cohen's $d=0.60$) appears to be contained between large and medium effect (Cohen, 1988).

With the weak/strong dimension a similar pattern of results was obtained, showing that our interest in associating tactile contact with an evaluation of various dimensions associated with dominance in a courtship context is a good method to explore the link between touch and the courtship relationship. A host of previous experimental studies have found that tactile contact is associated with higher rates of compliance to numerous requests, but few studies have been conducted to explore the possible explanation of such an effect. Concerning the evaluation of the later rating scale, we found that higher scores of sexual attractiveness were associated with compliance with the courtship request made by our young male confederate in the third experiment. Such pattern of result is certainly explained by the fact that the young women who judge that a young man has a high sexual attractiveness have more probability of accepting a dating request with this young man than with someone else who is rated lower on sexual attractiveness.

The effect of touch on this dimension is interesting because, to our knowledge, this effect of tactile contact on sexual attractiveness was not found and measured in previous studies where the effect of touch on impression was analyzed. This effect could be an interesting new dimension to explore. Perhaps this effect could be explained by the fact that touch is highly associated with intercourse and preliminaries in sexual relations or courtship relations. Then a simple contact could have the power to enhance the sexual attractiveness of the "toucher" because of the fact that it remains an important factor in more intimate relationships. Again, despite the absence of statistical significance, it was found that, in the group where the young women were compliant with the request of the confederate when a light tactile contact was associated with his request, a higher score of sexual attractiveness was present than when no contact occurred.

Compliance with the request of the confederate is positively associated with the measure of dominance, strength, and sexual attractiveness. Furthermore, sexual attractiveness is more related with compliance with the confederate request in the third experiment than were the two other dimensions. Of course such results would mean that sexual attractiveness is the most important factor in compliance to the courtship request, whereas the other two dimensions could have low importance. Regression analyses

show that the relation between dominance or strength dimension and touch or compliance is mediated by sexual attractiveness. It seems that dominance is associated with tactile contact and compliance only when a high level of sexual attractiveness exists. Such result are interesting because some studies have found that a high level of male dominance was associated with greater desirability as a dating partner for women (Sadalla et al., 1987; Shackelford et al., 2005), but the mediating effect of sexual attractiveness was not controlled in these experiments. This relation suggests that dominance is perhaps not sufficient to enhance the attraction of males as dating partners unless there is a high level of sexual attractiveness associated with dominance. This effect is congruent with the results of Mazur, Halpern, and Udry (1994), who found that dominance combined with attractiveness was the greater predictor of earlier copulation with male teenagers.

The relation between tactile contact and dominance is also mediated by sexual attractiveness of the confederate. This effect is more difficult to explain. Perhaps tactile contact had the property to enhance the perception of dominance and sexual attractiveness but at a different level. In our experiment the request was clearly a courtship request that led the participant to pay more attention to the physical attractiveness of the confederate (attractiveness that was evaluated as high by a group of women before we carried out the experiment) particularly when a tactile contact occurred. Further experiments varying the level of the confederate's attractiveness and information related with dominance (status, apparel, appearance) will help us to evaluate the link between touch, dominance, and sexual attractiveness.

CONCLUSION

It was found in our three experiments that touch is positively associated with higher compliance with a request in a courtship context. It seems that a young woman has more probability of starting a courtship relation when the male request is accompanied by a tactile contact. Perhaps this effect of touch could be explained by the fact that tactile contact led to an increase in the perception of dominance and sexual attractiveness of the male making the request. Further experiments with larger sample sizes are necessary. Furthermore, the effect size appeared to be higher than medium (Cohen, 1988), which may be expected to attain the 0.05 level of significance with larger samples of participants.

Of course dominance is not the only possible explanation of the power of touch on compliance. The effect of touch on compliance to a request has been found in many studies (Brockner et al., 1982; Goldman & Fordyce, 1983; Goldman et al., 1985; Hornik, 1987; Hornik & Ellis, 1988; Kleinke, 1977; Smith et al., 1982; Willis & Hamm, 1980). Several researchers have explained this positive effect on compliance by arguing that touch facilitates a positive

evaluation of the toucher. Such a hypothesis has been confirmed empirically in American culture. Fisher, Rytting and Hesling (1976) tested the affective and evaluative consequences of receiving an interpersonal touch in a situation where students at a university library were touched by the library clerks when they checked out their books. After the librarian-participant interaction, the experimenter approached the participant and asked him/her to answer a questionnaire intended to evaluate the personnel and the facilities of the library. The evaluation of the librarian-clerks was done by using four 7-point bipolar adjective items (positive/negative, helpful/not helpful, friendly/unfriendly, good/bad). The results showed that participants who were touched rated the clerk significantly more favorably than those who were not touched. Such results have been replicated in various studies. Steward and Lupfer (1987) found that college students who were touched by their instructor during their individual conferences rated the instructor more positively on the dimension of patience and understanding. Hornik (1992b) found that waiters or waitresses who touched patrons in a restaurant received higher evaluations (good/poor) than when no contact occurred. In a recent experiment (Erceau & Guéguen, in press), it was found that in a car-selling context, a slight tactile contact initiated by the seller toward the customer was associated with higher scores of friendliness, honesty, agreeableness, kindness, and sincerity. The effect of touch on dominance and on sexual attractiveness appears to be a new demonstration of the link between touch and the evaluation of the toucher. It is possible that in our experiments touch was associated with other positive dimensions of evaluation.

This experiment on the effect of tactile contact in a courtship context needs replication and extension to take into consideration requests other than the two courtship solicitations used here. Unobtrusive observational studies could be conducted in order to verify, in a natural courtship context, if male tactile contact toward women is associated with more success in a courtship relation. Because of the positive link between touch, compliance, and sexual attractiveness, the effect of the physical attractiveness of the person making the request needs to be tested in other experiments. In this experiment the effect of touch, and the high effect of sexual attractiveness of the confederate on the compliance to the courtship request, is perhaps explained by the high level of attractiveness of the confederate. It will be interesting in further experiments to use different levels of physical attractiveness and to test its effect on compliance and on the perception of the sexual attractiveness of the confederate, and the effect of touch on this latter dimension. Physical attractiveness is so important in courtship that it will be necessary to test this effect on compliance to a courtship request associated with a tactile contact.

Comparison with other cultures would also be necessary. The results of our experiments cannot be extended to other cultures because it has been

found that tactile contact is more frequent in French culture than in North American culture (Field, 1999; Jourard, 1966). It is possible that in a non-contact culture, the effect of touch in a courtship relation would be perceived negatively by women, and male contact would then be associated with greater failure. The association of touch in the context of courtship solicitations appeared to be an interesting area of research.

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