

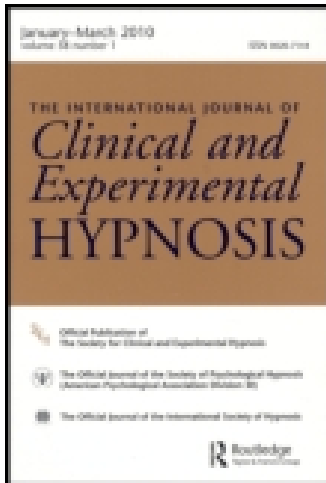
This article was downloaded by: [Orin Davis]

On: 05 August 2014, At: 11:02

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954

Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## International Journal of Clinical and Experimental Hypnosis

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/nhyp20>

### Factors That Contribute to the Willingness to Try “Street Hypnosis”

Orin C. Davis<sup>abc</sup> & Xuan Gao<sup>bd</sup>

<sup>a</sup> City University of New York (Baruch College, Medgar Evers College), New York, USA

<sup>b</sup> Quality of Life Laboratory, New York, New York, USA

<sup>c</sup> Claremont Graduate University, California, USA

<sup>d</sup> University of Pennsylvania, Philadelphia, USA

Published online: 01 Aug 2014.

To cite this article: Orin C. Davis & Xuan Gao (2014) Factors That Contribute to the Willingness to Try “Street Hypnosis”, *International Journal of Clinical and Experimental Hypnosis*, 62:4, 425-454, DOI: [10.1080/00207144.2014.931175](https://doi.org/10.1080/00207144.2014.931175)

To link to this article: <http://dx.doi.org/10.1080/00207144.2014.931175>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the “Content”) contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

## FACTORS THAT CONTRIBUTE TO THE WILLINGNESS TO TRY “STREET HYPNOSIS”

ORIN C. DAVIS

*City University of New York (Baruch College, Medgar Evers College) and Quality of Life  
Laboratory, New York, USA; and Claremont Graduate University, California, USA*

XUAN GAO

*University of Pennsylvania, Philadelphia, USA; and Quality of Life Laboratory, New York,  
New York, USA*

**Abstract:** This study takes a context-specific approach to examine people’s willingness to try hypnosis under various conditions and the factors that contribute to their willingness. It examined 378 participants, who completed a web-based hypnosis survey. The results showed that people’s willingness to try hypnosis varies by context. Specifically, people are more willing to try hypnosis when it is framed as “peak focus” rather than “hypnosis” and when they perceive the environment as being safer. Moreover, factors including participants’ demographics, hypnotists’ demographics (relative to the subjects’), participants’ control bias, and knowledge of hypnosis affect people’s degrees of willingness to try hypnosis, depending on the specific context. The results suggest further analysis of hypnosis occurring in public contexts and the effects it may have on attitudes and therapeutic outcomes.

One of the advantages of the Information Age is that hypnosis professionals and researchers have been able to combat the disinformation on hypnosis that is pumped out by the media. As the myths fade, hypnosis has become increasingly accepted by the general population, and more and more people are learning, trying, using, and practicing hypnosis than ever before. There are even books and courses that laypeople can use to learn how to hypnotize people, and just about anyone can become a (self-proclaimed) hypnotist these days. Despite researchers’ grumbles about finicky Institutional Review Boards (Kihlstrom, 2002), it has never been easier to use hypnosis.

But with the advent of this free-flowing knowledge comes a new context in which hypnosis is practiced. To date, hypnosis has been

Manuscript submitted December 31, 2012; final revision accepted December 5, 2013.

Address correspondence to Orin C. Davis, Baruch College, Box B8-215, 55 Lexington Avenue, New York, NY 10010, USA. E-mail: [odavis@qllab.org](mailto:odavis@qllab.org)

typically conducted for therapeutic purposes, entertainment (i.e., stage hypnosis), and research. And, though hypnosis has been known to appear as the occasional parlor trick, there has been a rapid rise in such impromptu opportunities for people to experience hypnosis outside of the stage, clinic, and lab, not to mention the media (cf. Barrett, 2006, 2010) and YouTube (J. C. Mohl, personal communication, June 11, 2012). To wit, hypnosis is now more commonly performed at parties by dilettantes with bold claims and street performers who find (sometimes-unsuspecting) people and create an extemporaneous public demonstration (in addition to those who use active-alert hypnosis [cf. Barabasz, 2006; Barabasz & Christensen, 2006; Wark, 2011] and waking hypnosis [Capafons & Mendoza, 2010] in all sorts of contexts), which has been colloquially termed *street hypnosis*.

While there has been extensive research about attitudes toward hypnosis (see Capafons et al., 2008, for a review), the literature has been concentrated in several ways, and this study aims to expand the scope of current research. First and foremost, prior studies have not directly assessed people's attitudes toward street hypnosis, and many studies ask whether people are interested in trying hypnosis without providing a context in which it occurs (cf. Yu, 2004). For example, the Attitudes Towards Hypnosis (ATH) Scale (Spanos, Brett, Menary, & Cross, 1987) does not consider context, and even the Valencia Scale of Attitudes and Beliefs Toward Hypnosis–Client (VSABTH–C; Capafons, Alarcón, Cabañas, & Espejo, 2003; Green, Houts, & Capafons, 2012) still takes a context-free approach to its queries about the willingness to try hypnosis (though a therapeutic context is implied). To that end, this study takes a context-specific approach to the issue of willingness to try hypnosis, with the express intent of developing an understanding of people's attitudes toward the rising phenomenon of street hypnosis. This is particularly important because the dilettantes and stage-variety “hypnotists” engaged in street hypnosis could be providing disinformation that can inhibit receptivity to clinical uses of hypnotherapy (cf. Capafons et al., 2005).

As Gow et al. (2006) noted, a second issue is that most studies have used highly specific samples that may not have the external validity that a more randomly drawn sample might contain. Indeed, as Large and James (1991) noted, it is rare to find an opportunity to discuss public opinion on hypnosis (even as their study did attempt to assess public opinion in Australia). This is despite extensive cross-cultural work by researchers like Yu (e.g., 2004), Green (e.g., Green, Page, Rasekhy, Johnson, & Bernhardt, 2006), and Capafons (e.g., Capafons et al., 2008). Additionally, while the latter studies have used larger sample sizes, it has been rare to find more than 200 subjects in these studies (and these large studies, such as Green et al., 2012,  $N = 1141$ , are still using limited populations, such as college students). Thus, this study used Amazon

Mechanical Turk (a crowdsourcing platform and online labor market: see Mason & Suri, 2011, and Paolacci, Chandler, & Ipeirotis, 2010, for a detailed description) to find a broad sample that extends beyond college students to get a view of the public's willingness to try street hypnosis. Research has shown that American participants on Amazon Mechanical Turk are more representative of the American population as a whole than participants recruited from traditional university-student pools or Internet samples in general (Ipeirotis, 2010). While there have been some concerns about whether Mechanical Turk is fully representative of the U.S. population, Paolacci et al. note that "Internet subject populations tend to be closer to the U.S. population as a whole than subjects recruited from traditional university subject pools" (p. 412; cf. Mason & Suri, 2011; Sprouse, 2011). In addition, compared to traditional laboratory and Web studies, Mechanical Turk also has advantages such as low susceptibility to coverage error, low heterogeneity of samples across labs, low risk of contaminated subject pool, low risk of dishonest response, and no risk of experimenter effects (Berinsky, Huber, & Lenz, 2012; Paolacci et al., 2010).

### FACTORS THAT AFFECT WILLINGNESS TO TRY STREET HYPNOSIS

As prior studies have shown, there are a number of factors that are known to contribute to willingness to try hypnosis, including demographics. For example, Spanos et al. (1987), Green et al. (2006), and Capafons et al. (2008), all found gender differences in factors related to attitudes toward hypnosis. The former two studies showed relatively few gender differences (main effects for ATH were nonsignificant across all factors and the total score), but they did find that women tended to think of hypnotizable people as more mentally stable, which does reflect a certain degree of absence of fear (though this is distinct from the ATH factor "fearlessness," on which men and women scored comparably; Green et al., 2006; Spanos et al., 1987). The Capafons study used a different measurement and found that men score higher than women on the belief that hypnotized people are in control of their actions. The study also showed that women score higher on measures of fear and on measures relating to the need for collaboration between the hypnotist and subject to achieve hypnotic responses. Thus, there are some findings that show gender differences on fear, and others that show no differences. While we do hypothesize the presence of gender differences on willingness to try hypnosis in a "street" context (H1a), we cannot hypothesize which way the gender differences will play out. While resolving the results of prior studies is beyond the scope of this article, we do show that men and women differ on their willingness to try hypnosis in different contexts.

For age, however, findings were more mixed. Barling and De Lucchi (2004) found that age is not a significant factor in determining accuracy of knowledge about hypnosis, favorable attitudes about hypnosis, or motivation to use hypnosis. They found that, especially among those who have experience with hypnosis, participants showed no age differences in attitudes or beliefs about hypnosis. Gow et al. (2006), however, found a minor effect of older participants tending to think that the hypnotists control the experience. This was confirmed by Capafons et al. (2008), who also showed small inverse correlations between age and collaboration (between hypnotist and subject to produce effects). Because of these findings, our study examines differences in gender and age and checks for differences in ethnicity (though none were expected for the latter; cf. Capafons et al., 2008). We hypothesize that there will be limited age effects on willingness to try hypnosis, if any at all (H2a), and we do not anticipate any differences on the basis of ethnicity (H3). Another question that has rarely, if ever, appeared in the literature is whether the hypnotist is of the same demographic (gender, age, ethnicity) as the subject. Given the paucity of information on this matter, we have no a priori hypotheses, save to suggest that, due to prior research finding some gender and age differences in attitudes toward hypnosis, it is likely that the gender and age effects will extend to the demographics of the hypnotist (H1b, H2b).<sup>1</sup>

Many of the studies listed above have also found that personal experiences related to hypnosis also affect willingness to try. As early as 1964, Melei and Hilgard were showing that attitudes towards hypnosis affect willingness to try in a nonclinical, nonentertainment context (in this case, an experiment for introductory psychology students). In general, participants who have had personal experience with hypnosis show more positive attitudes toward and correct beliefs about hypnosis and hold fewer negative attitudes and misconceptions about it (Barling & De Lucchi, 2004; Capafons et al., 2008; Green, 2003; Hawkins & Bartsch, 2000). But, the format/context of the hypnosis experience can lead to different outcomes. For example, experience with clinical hypnosis leads to more openness, whereas participating in stage hypnosis tends to increase fear (Gow et al., 2006; cf. Echterling & Emmerling, 1987; MacKillop, Lynn, & Meyer, 2004). Our study, therefore, hypothesizes that those with prior positive experiences will be more willing to try hypnosis in any context, but that this still may vary by context (H4).

Research has also shown that accurate beliefs about hypnosis are correlated with positive attitudes and that misconceptions are correlated with negative attitudes toward hypnosis, which in turn

<sup>1</sup>Insofar as the relative ethnicity of the hypnotist can be a dicey issue, we have opted not to make that inquiry in this study.

affects willingness to try hypnosis (Capafons, Cabañas, Espejo, & Cardena, 2004; Capafons, Morales, Espejo, & Cabañas, 2006; Carvalho et al., 2007). Specifically, people who have gained knowledge of hypnosis from scientific sources show more positive attitudes toward hypnosis and hold fewer misconceptions about it (Barling & De Lucchi, 2004; Capafons et al., 2008). Also, people who discussed hypnosis with someone knowledgeable (i.e., personal experience) had more positive beliefs and less fear about hypnosis and were more likely to try (at least in a clinical setting; Barling & De Lucchi, 2004). Thus, we hypothesize that those who are more knowledgeable about hypnosis will be more willing to try it in any context (H5).

Along those lines, studies have demonstrated that the perceived control hypnotists have over those who are being hypnotized has an impact on people's attitudes towards hypnosis and their willingness to try it. Yu (2004) found that people who think they can be controlled by hypnosis tend to have negative views toward it. Some studies, however, have shown that the issue of perceived control affects people of different ages and genders differently. For example, London (1961) suggested the potential reason for the gender differences in willingness to try hypnosis might actually be a difference in perceived control during hypnosis. Men tend to think they retain more control than women and thus are more willing to try hypnosis (see above). Johnson and Hauck (1999) found that the idea of being controlled by hypnosis would not deter young people who want to try hypnosis but would turn old people away. In prior studies, questions about control over subjects were mostly binary (does/does not have control; Johnson & Hauck, 1999). In this study, however, we decided to assess the extent to which people think they have control while under hypnosis and the extent to which people think the hypnotist has control over subjects under hypnosis, with the supposition that the former will be associated with increased willingness to try hypnosis, and vice versa for the latter (H6).

A final point that has a large impact on attitudes and willingness to try hypnosis is the use of the term *hypnosis*. As has been noted (e.g., Gandhi & Oakley, 2005; Green, 2003), the use of the word *hypnosis* can have a significant impact on willingness to try, as can the context in which hypnosis is performed. Research has shown that whether someone is about to participate in self-hypnosis versus hetero-hypnosis affects their willingness to try, which further strengthens the argument that precise presentation of contexts matters (Capafons et al., 2005; Capafons, Selma, et al., 2006). In addition, introducing hypnosis as an altered state of consciousness or trance deters some people's willingness to try hypnosis and might even inhibit the intention to try hypnosis for people who are not initially afraid of hypnosis and would otherwise be willing to try it (Capafons, 2002, 2004; Kirsch, 1993, 1994; Koizumi, 2001). To that end, we first introduced hypnosis as "peak focus" with the street context being a party. Because there were no indications that

the survey was about hypnosis and, as noted above, the use of the term *hypnosis* has the potential to bias the subject, this question had to come before any others that would involve the term *hypnosis*. We then compared hypnosis at a party, where one is likely to know people, to an actual street context, where the individual is less likely to be with anyone that he or she knows. Because peak focus may need some explanation, we consider it unlikely that a person would respond to a random person inciting a conversation on the street that could turn into an opportunity to try hypnosis (whereas parties have conversations that can turn a discussion toward such an opportunity, as in parlor hypnosis). Given this, and the fact that trying disguised hypnosis on the street is not a construct of interest, we are leaving this detail to a future study and focusing on street hypnosis. Ultimately, we expect a hierarchy of willingness to try, with peak focus at a party being the context in which participants are most willing, followed by hypnosis at a party, and with street hypnosis at the bottom (H7; see [Figure 1](#) for a review and restatement of the study's hypotheses).

## METHOD

A 16-item survey was constructed for the purpose of this study. The questions assess people's willingness to try street hypnosis under three different contexts (peak focus at a party, hypnosis at a party, and hypnosis in a public place). For the first context (peak focus at a party), the query was as follows:

At a gathering/party/event, you strike up a conversation with a friendly person, and the person mentions having studied ways of enabling people to achieve peak focus, which can harness the power of suggestion to modify behavior and engage the imagination more vividly. The person offers you the opportunity to try experiencing peak focus. Would you be willing to try it?

For the second context, hypnosis at a party, the query was the same as the peak focus item but with the word *hypnosis* in lieu of *peak focus*. The public hypnosis condition is a typical example of street hypnosis and used the following query: "If you were randomly approached by someone in a public place and asked if you wanted to be hypnotized, would you do it if you had the time?" For those who said "yes/maybe" in any condition, there was a follow up question asking, "Who of the following would you allow to hypnotize you under the circumstances?" and gave a single check-all-that-apply set that included being hypnotized by someone of the same/opposite gender and by someone of a higher/equal/younger age. The survey measured prior experience with hypnosis (and asked about the context in which it occurred, e.g., stage, relative, nonpsychological health practitioner), assessed the positivity



- <sup>\*</sup>H1a: There will be gender differences on willingness to try hypnosis in all street contexts (a priori, specific differences cannot be predicted from past research).
- <sup>\*</sup>H1b: There will be an effect of the gender of the hypnotist relative to the subject with regard to willingness to try hypnosis in all street contexts (a priori, specific differences cannot be predicted from past research).
- <sup>?</sup>H2a: There will be limited age effects on willingness to try hypnosis, if any at all.
- <sup>\*</sup>H2b: There will be an effect of the age of the hypnotist relative to the subject with regard to willingness to try hypnosis in all street contexts (a priori, specific differences cannot be predicted from past research).
- <sup>\*</sup>H3: There will be no ethnicity-based differences on willingness to try hypnosis.
- <sup>\*</sup>H4: Those with prior positive experiences will be more willing to try hypnosis in any context, but this effect still may vary by context.
- <sup>\*</sup>H5: Those who are more knowledgeable about hypnosis will be more willing to try it in any context, but this effect still may vary by context.
- <sup>\*</sup>H6: Those with the belief that the hypnotist tends to have control over a subject will be less willing to try hypnosis in any context, but this effect still may vary by context.
- <sup>\*\*</sup>H7: We expect that willingness to try hypnosis will vary both by context and by whether the term "hypnosis" is used, which will elicit a hierarchy of willingness to try hypnosis, with "peak focus" at a party being the context in which participants are most willing, followed by hypnosis at a party, and with street hypnosis at the bottom.

**Figure 1.** Hypotheses regarding the factors that affect willingness to try hypnosis in a variety of "street" contexts. *Notes.* In all cases, we expect that the results will be contextualized, such that the context in which street hypnosis is performed will affect the extent to which the hypothesis is true. Moreover, willingness to try hypnosis may interact with any of the factors discussed in this study. \*\*Confirmed fully. \*Confirmed partially. +Disconfirmed partially. ?Inconclusive results.

of the prior experience and asked for the gender and relative age of the hypnotist (older/same/younger). There were measures of whether respondents spoke with someone knowledgeable about the subject (and whom; e.g., clinician, teacher) and whether respondents felt knowledgeable about the subject (on a 5-point scale from *not knowledgeable at all* to *expert*). Perceived control under hypnosis was assessed, both in terms of the degree to which the hypnotist has control during hypnosis (scale of 1 = *no control* to 5 = *complete control*) and the degree to which the subject has control (same scale). The survey also contains demographic questions including gender, ethnicity, age, and education level.

The survey was administered on Amazon Mechanical Turk (<http://www.mturk.com>), a crowdsourcing platform and online labor market in which employees sign up to complete tasks (e.g., surveys) and to receive payment for doing so (see Paolacci et al., 2010, for a more detailed description). As in the case of this survey, eligibility for surveys can be restricted. We required all participants to be American and

fluent in English. Respondents logged into the site, voluntarily opted to “Answer a short survey” and were awarded \$0.25 in compensation.

## RESULTS

### *Demographics*

A total of 378 participants completed the questionnaire; 166 (44%) were male and 211 (56%) were female (1 missing). While there was a notable age diversity in the sample, the 18–30 group comprised more than 50% of the sample ( $n = 191$ ), about 22% of the sample was 31–40 ( $n = 83$ ), 13% of the sample was 41–50 ( $n = 49$ ), and 15% of the sample was over 50 ( $n = 55$ ). Thus, age was grouped into the binary  $\leq 30$  and  $> 30$ . There was insufficient diversity in the ethnicities to run any analyses other than the binary Caucasian (81%;  $n = 306$ ) versus Non-Caucasian (19%;  $n = 72$ ). Education reflected a bimodal distribution with the middle valley being some college and thus education was divided into a Bachelor’s degree and beyond (50%;  $n = 190$ ) and less than a Bachelor’s (50%;  $n = 188$ ). We used chi-square tests to check every possible pair of demographics from the set (age, gender, ethnicity, education) for interactions, and the only interaction was that those over 30 were more likely to have completed college (which is logical, but a confound—see below).

### *Willingness to Try Hypnosis Varies by Context*

Confirming our hypothesis (H7), the data show a very strong trend of decreased willingness to try hypnosis as it goes from being presented as peak focus at a party, to hypnosis in a party context, to a street hypnosis (public) context. Table 1 shows a shift from more frequent affirmative (yes/maybe) responses in the peak focus context, to predominantly negative responses in the public context. Table 2 contains a cross-tabulation that reflects all 27 possible combinations of conditions, in which there are several notable details that highlight two key trends.

Table 1  
*Frequencies of Willingness to Try Hypnosis Under Three Conditions*

	Yes		Maybe		No	
	<i>N</i>	% Within Given Context	<i>N</i>	% Within Given Context	<i>N</i>	% Within Given Context
Would you try . . .						
Peak Focus	148	39%	155	41%	75	20%
Hypnosis at a Party	115	30%	135	36%	128	34%
Street Hypnosis	26	7%	65	17%	287	76%

Note.  $N = 378$ ; percentages are based on row totals.

Table 2  
 Cross-Tabulation of Willingness to Try Hypnosis Under the Three Conditions

Peak Focus Response	Hypnosis (Party) Response		Combined Response (Peak Focus — Hypnosis [Party])		Hypnosis (Street) Response		Combined Response Across All Items		Expected Count Given All Conditions		
	Count	Response	Count	Response	Count	Response	Count	Response	Count	Count	
Yes	148	Yes	89	Yes-Yes	Yes	Yes-Yes-Yes	19	Yes-Yes-Yes	19	12.6	
				Yes-Maybe	Maybe	Yes-Yes-Maybe	39	Yes-Yes-Maybe	39	28.9	
		Maybe	40	No	No	Yes-Yes-No	31	Yes-Yes-No	31	47.5	
				Yes	Yes	Yes-Maybe-Yes	2	Yes-Maybe-Yes	2	5.7	
				Maybe	Maybe	Yes-Maybe-Maybe	8	Yes-Maybe-Maybe	8	13.0	
	Maybe	155	No	19	Yes-No	Yes	Yes-Maybe-No	30	Yes-Maybe-No	30	21.4
					Yes-Yes	Maybe	Yes-No-Yes	0	Yes-No-Yes	0	2.7
					Yes-Maybe	No	Yes-No-Maybe	1	Yes-No-Maybe	1	6.2
					Maybe-Yes	Yes	Yes-No-No	18	Yes-No-No	18	10.1
					Maybe-Maybe	Maybe	Maybe-Yes-Yes	2	Maybe-Yes-Yes	2	0.7
No	155	Yes	23	Maybe-Yes	Maybe	Maybe-Yes-Maybe	3	Maybe-Yes-Maybe	3	1.9	
				Maybe-Maybe	No	Maybe-Yes-No	18	Maybe-Yes-No	18	20.3	
				Maybe-No	Yes	Maybe-Maybe-Yes	2	Maybe-Maybe-Yes	2	2.8	
				Yes	Maybe	Maybe-Maybe-Maybe	9	Maybe-Maybe-Maybe	9	7.2	
				Yes-Yes	No	Maybe-Maybe-No	75	Maybe-Maybe-No	75	76.0	
	Maybe	46	No	46	Maybe-No	Yes	Maybe-No-Yes	1	Maybe-No-Yes	1	1.5
					Maybe-Yes	Maybe	Maybe-No-Maybe	1	Maybe-No-Maybe	1	3.9
					Maybe-Maybe	No	Maybe-No-No	44	Maybe-No-No	44	40.7
					Maybe-Yes	Maybe	Maybe-Yes-Yes	1	Maybe-Yes-Yes	1	1.5
					Maybe-Yes	Maybe	Maybe-Yes-Maybe	1	Maybe-Yes-Maybe	1	3.9

(Continued)

Table 2  
(Continued)

Peak Focus Response	Count	Hypnosis (Party) Response	Combined Response (Peak Focus — Hypnosis [Party])	Hypnosis (Street) Response	Combined Response Across All Items	Count	Expected Count Given All Conditions
No	75	Yes	No-Yes	Yes	No-Yes-Yes	—	—
				Maybe	No-Yes-Maybe	2	0.2
				No	No-Yes-No	1	2.8
		Maybe	No-Maybe	Yes	No-Maybe-Yes	—	—
				Maybe	No-Maybe-Maybe	1	0.5
				No	No-Maybe-No	8	8.5
		No	No-No	Yes	No-No-Yes	—	—
				Maybe	No-No-Maybe	1	3.4
				No	No-No-No	<b>62</b>	<b>59.6</b>

Note. Important numbers referenced in the article are in bold italics.

An example of how to read Table 2: Of the 378 people who responded to the survey, 148 people said “Yes” to trying “peak focus.” Of those 148 people, 89 said “Yes” to trying hypnosis at a party (Yes-Yes), 40 said “Maybe” to trying hypnosis at a party (Yes-Maybe), and 19 said “No” to trying hypnosis at a party (Yes-No). Of the 89 who said “Yes” to both “peak focus” and hypnosis at a party, 19 said “Yes” to street hypnosis (Yes-Yes-Yes), 39 said “Maybe” to street hypnosis (Yes-Yes-Maybe), and 31 said “No” to street hypnosis (Yes-Yes-No). Note that each column of numbers adds up to the total N of 378.

Overall, [Table 2](#) shows that, given a conservative answer in any context, all subsequent contexts tend to reflect at least that level of conservatism, which is a more detailed picture of the trend found in [Table 1](#). That is, among those who gave a more conservative answer (Maybe/No;  $n = 230$ ) to the safest situation (i.e., peak focus at a party), very few ( $n = 29$ ) said "Yes" to any other hypnosis context—ergo, a "Maybe" on peak focus overwhelmingly tended to be followed by "Maybe" or "No" in both other contexts. And almost everyone who gave a "Maybe" answer to hypnosis at a party ( $n = 135$ ) overwhelmingly said "No" to street hypnosis ( $n = 113$ ).

In addition to the aforementioned trend, we found that there is a distinct group of people with a high willingness to try hypnosis in general. Only 26 people were willing to try street hypnosis, and the majority of them ( $n = 19$ ) were willing to try anything ("Yes-Yes-Yes" in [Table 2](#)), and only 1 of them was explicitly unwilling to try hypnosis in another context (in that case, party hypnosis). Across the safer contexts of peak focus and party, where one is likely to know people, there was still some consistency in willingness to try (Fisher's Exact Test,  $p < .001$ ). For example, of the 148 people who were willing to try peak focus, 60% of them ( $n = 89$ ) were also willing to try hypnosis at a party ("Yes-Yes" group in [Table 2](#)). Those 89 people also comprise the vast majority (77%) of the 115 people who were willing to try hypnosis at a party. For another example, of the 65 who said they might try street hypnosis, 39 of them (60%) were explicitly willing to try hypnosis in the other two contexts ("Yes-Yes-Maybe" in [Table 2](#)). That is, the willingness to try street hypnosis demonstrably connected to a willingness to try hypnosis in the other two contexts.

But it is clear that street hypnosis is a different issue, especially in light of the fact that, of the 86 who were ambivalent about the peak focus and party contexts ("Maybe-Maybe" in [Table 2](#)), a full 87% of them ( $n = 75$ ) refused to try street hypnosis ("Maybe-Maybe-No" in [Table 2](#)). Additionally, of the 75 who would not try peak focus, a full 83% ( $n = 62$ ) refused to try anything at all ("No-No-No" in [Table 2](#)).

Ultimately, 16% of the overall sample ( $n = 62$ ) was not willing to try hypnosis under any of the conditions, and only 5% of the overall sample ( $n = 19$ ) was willing to try anything.

Finally, continuing the initially mentioned trend, almost all (96%) of the people that might try peak focus but would not try hypnosis at a party ( $n = 46$ ) also would not try street hypnosis ( $n = 44$ ; "Maybe-Maybe-No" in [Table 2](#)). Further, as shown in [Table 3a](#), we found that, among those willing to consider (maybe/yes) trying hypnosis at either a party or in public, there was no interaction between context and degree of willingness to try (Fisher's Exact Test, *ns*). But, given willingness to consider (maybe/yes) trying hypnosis or peak focus, the use of the term "hypnosis" mattered, given that those who were willing to try hypnosis at a party were disproportionately willing to try peak focus, and those

Table 3a

*Cross-Tabulation of Degrees of Willingness to Try Hypnosis in Public and Party Contexts*

Context			Public		Total
			Maybe	Yes	
Party	Maybe	Observed	18	4	22
		<i>Expected</i>	15.68	6.32	
	Yes	Observed	44	21	65
		<i>Expected</i>	46.32	18.68	
<b>Total</b>			<b>62</b>	<b>25</b>	<b>87</b>

Table 3b

*Cross-Tabulation of Degrees of Willingness to Try Hypnosis in Peak Focus and Party Contexts*

Context			Peak Focus		Total
			Maybe	Yes	
Party	Maybe	Observed	86	40	126
		<i>Expected</i>	57.71	68.29	
	Yes	Observed	23	89	112
		<i>Expected</i>	51.29	60.71	
<b>Total</b>			<b>109</b>	<b>129</b>	<b>238</b>

who were ambivalent were disproportionately ambivalent about both contexts (Fisher's Exact Test,  $p < .001$ ; see Table 3b).

#### *Willingness to Try Varies by Demographics*

Interestingly, participants' gender, age, and ethnicity are associated with their willingness to try peak focus but not in other contexts (see Table 4a). Specifically, participants' gender is associated with willingness to try peak focus,  $\chi^2(2) = 8.20, p < .05$ , with women disproportionately responding "maybe" or "no," and men disproportionately saying "yes" (confirming H1 in at least one context). Participants' age is associated with willingness to try peak focus,  $\chi^2(2) = 9.40, p < .01$ , with participants over 30 disproportionately responding "no," and participants 30 and under tending to say "yes" (this would partially confirm H2a, save for a confound discussed below). Ethnicity is also associated with willingness to try,  $\chi^2(2) = 6.44, p < .05$ , with Caucasians tending toward affirmative responses (yes/maybe) and non-Caucasians tending toward "no" (H3 partially disconfirmed). Education level is associated

Table 4a  
 Willingness to Try Hypnosis by Demographics

Response to Hypnosis Context	Demographic									
	Gender		Age		Ethnicity		Education			
	Women	Men	> 30	<= 30	Caucasian	Non-Caucasian	>= Bachelor's	< Bachelor's		
Peak focus	Yes	69	78	61	87	124	24	62	86	
		33%	47%	33%	46%	41%	33%	33%	46%	
	Maybe	94	61	79	76	129	26	80	75	
		45%	37%	42%	40%	42%	36%	42%	40%	
Party Hypnosis	No	48	27	47	28	53	22	48	27	
		23%	16%	25%	15%	17%	31%	25%	14%	
	Total	211	166	187	191	306	72	190	188	
		60	55	54	61	98	17	49	66	
Street Hypnosis	Yes	28%	33%	29%	32%	32%	24%	26%	35%	
	Maybe	78	57	64	71	107	28	75	60	
		37%	34%	34%	37%	35%	39%	39%	32%	
	No	73	54	69	59	101	27	66	62	
Street Hypnosis		35%	33%	37%	31%	33%	38%	35%	33%	
	Total	211	166	187	191	306	72	190	188	
	Yes	10	16	9	17	21	5	7	19	
		5%	10%	5%	9%	7%	7%	4%	10%	
Street Hypnosis	Maybe	36	29	30	35	56	9	27	38	
		17%	17%	16%	18%	18%	13%	14%	20%	
	No	165	121	148	139	229	58	156	131	
		78%	73%	79%	73%	75%	81%	82%	70%	
Street Hypnosis	Total	211	166	187	191	306	72	190	188	

with willingness to try both peak focus,  $\chi^2(2) = 9.92, p < .01$ , and street hypnosis,  $\chi^2(2) = 9.57, p < .05$ , with the Bachelor's-or-more group more frequently saying "no," and the less-than-a-Bachelor's group answering squarely in the affirmative for peak focus and tending toward the affirmative (yes/maybe) for street hypnosis.

Because education level and age are not independent, we ran three-way cross-tabulations between education, age, and willingness to try hypnosis across the various conditions. Across the conditions, we found that those over 30 and with a baccalaureate degree and those under 30 without a degree were overrepresented in the sample and that this pattern was consistent across all possible answers in all conditions (e.g., those disproportions were found in "yes," "maybe," and "no" across all three hypnosis conditions). Some disproportions were significant, and others not, but the lack of pattern in the significant disproportions leaves us to conclude that this is a confound in the study; we were not able to tease out the effects of age and education independently (H2 remains inconclusive).

Of the 62 people who did not want to try hypnosis under any of the conditions, 40 (65%) were female, and 41 (66%) were over 30 (28/62 were women over 30, and the two demographics did not show an interaction effect, Fisher's Exact Test, *ns*). While the distribution for age did not deviate significantly from the expected count (35/62 female), those over 30 were disproportionately unwilling to try anything (Fisher's Exact Test,  $p < .01$ ).

#### *The Effects of Hypnotists' Relative Age or Gender*

The relative age or gender of the hypnotists impacted participants' willingness to try hypnosis differently in the various contexts with those who were more cautious about hypnosis also showing preferences for a hypnotist of a particular demographic (see Table 4b). In the context of peak focus, given that participants would consider trying (maybe/yes), subjects were divided on whether the gender of the hypnotist mattered, but those who said "maybe" to trying peak focus were disproportionately biased toward older hypnotists (H2b partially confirmed). Those who said "yes," however, were more likely to accept hypnotists of all ages (Fisher's Exact Test,  $p < .05$ ).

In the context of trying hypnosis at a party, among participants who are willing to try hypnosis (maybe/yes), those who said "yes" were more likely to accept hypnotists of both genders, whereas those who said "maybe" were more likely to mind hypnotists' relative gender (Fisher's Exact Test,  $p < .05$ ; H1b partially confirmed). There were no significant differences between those who said "yes," and those who said "maybe" regarding a preference for the age of the hypnotist (Fisher's Exact Test,  $p = .053$ ). But, among participants who were willing to try hypnosis publicly, neither the relative age nor gender of the hypnotists mattered for their degree of willingness to try (maybe/yes).



**Table 4b**  
*Willingness to Try Hypnosis Varies by Relative Demographic of Hypnotist (Observed vs. Expected Counts)*

Response to Hypnosis Context	Gender of Subject	Demographic of Hypnotist											
		Same Gender		Opposite Gender		Younger		Older		Same Age			
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes		
Peak focus	Male	28	50	13	65	49	29	24	54	20	58		
	Female	21.2	56.8	18.0	60.0	52.0	26.0	21.2	56.8	19.6	58.4		
Maybe	Male	12	57	21	48	49	20	16	53	17	52		
	Female	18.8	50.2	16.0	53.0	46.0	23.0	18.8	50.2	17.4	51.6		
Yes	<b>Total</b>	<b>40</b>	<b>107</b>	<b>34</b>	<b>113</b>	<b>98</b>	<b>49</b>	<b>40</b>	<b>107</b>	<b>37</b>	<b>110</b>		
	Male	27	34	18	43	50	11	26	35	19	42		
Yes	Female	17.7	43.3	26.0	35.0	48.4	12.6	20.1	40.9	22.4	38.6		
	<b>Total</b>	18	76	48	46	73	21	25	69	38	56		
Yes	Male	27.3	66.7	40.0	54.0	74.6	19.4	30.9	63.1	34.6	59.4		
	Female	45	110	66	89	123	32	51	104	57	98		
Yes	Male	16	39	11	44	35	20	16	39	16	39		
	Female	12.0	43.0	13.9	41.1	35.9	19.1	13.4	41.6	14.8	40.2		
Yes	<b>Total</b>	9	51	18	42	40	20	12	48	15	45		
	Male	13.0	47.0	15.1	44.9	39.1	20.9	14.6	45.4	16.2	43.8		
Yes	Female	25	90	29	86	75	40	28	87	31	84		
	<b>Total</b>												

(Continued)

Table 4b  
(Continued)

Response to Hypnosis Context		Demographic of Hypnotist											
		Gender of Subject		Same Gender		Opposite Gender		Younger		Older		Same Age	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Party Hypnosis	Maybe	23	34	17	40	48	9	19	38	20	37		
		<i>13.1</i>	<i>43.9</i>	<i>26.6</i>	<i>30.4</i>	<i>43.9</i>	<i>13.1</i>	<i>16.5</i>	<i>40.5</i>	<i>21.5</i>	<i>35.5</i>		
	Female	8	70	46	32	56	22	20	58	31	47		
		<i>17.9</i>	<i>60.1</i>	<i>36.4</i>	<i>41.6</i>	<i>60.1</i>	<i>17.9</i>	<i>22.5</i>	<i>55.5</i>	<i>29.5</i>	<i>48.5</i>		
	<b>Total</b>	<b>31</b>	<b>104</b>	<b>63</b>	<b>72</b>	<b>104</b>	<b>31</b>	<b>39</b>	<b>96</b>	<b>51</b>	<b>84</b>		
Street Hypnosis	Yes	5	11	4	12	12	4	6	10	9	7		
		<i>3.7</i>	<i>12.3</i>	<i>6.2</i>	<i>9.8</i>	<i>9.8</i>	<i>6.2</i>	<i>6.2</i>	<i>9.8</i>	<i>7.4</i>	<i>8.6</i>		
	Female	1	9	6	4	4	6	4	6	3	7		
		<i>2.3</i>	<i>7.7</i>	<i>3.8</i>	<i>6.2</i>	<i>6.2</i>	<i>3.8</i>	<i>3.8</i>	<i>6.2</i>	<i>4.6</i>	<i>5.4</i>		
	<b>Total</b>	<b>6</b>	<b>20</b>	<b>10</b>	<b>16</b>	<b>16</b>	<b>10</b>	<b>10</b>	<b>16</b>	<b>12</b>	<b>14</b>		
	Maybe	12	17	11	18	22	7	9	20	13	16		
		<i>6.7</i>	<i>22.3</i>	<i>10.7</i>	<i>18.3</i>	<i>21.9</i>	<i>7.1</i>	<i>7.6</i>	<i>21.4</i>	<i>9.8</i>	<i>19.2</i>		
Female	3	33	13	23	27	9	8	28	9	27			
	<i>8.3</i>	<i>27.7</i>	<i>13.3</i>	<i>22.7</i>	<i>27.1</i>	<i>8.9</i>	<i>9.4</i>	<i>26.6</i>	<i>12.2</i>	<i>23.8</i>			
<b>Total</b>	<b>15</b>	<b>50</b>	<b>24</b>	<b>41</b>	<b>49</b>	<b>16</b>	<b>17</b>	<b>48</b>	<b>22</b>	<b>43</b>			

Note. Expected counts are italicized; totals are across genders within each context-response pair (e.g., Peak focus-Maybe).

In all cases, those who said that the gender of the hypnotist mattered were split as to whether they preferred a hypnotist of the same gender or the opposite gender. For all three conditions, men tended to prefer a hypnotist of the opposite gender, while women tended to prefer same gender (Fisher's Exact Test,  $p < .001$ ; for public hypnosis,  $p < .05$ ). Neither age, ethnicity, nor education interacted with a preference for a hypnotist of the same or opposite gender. Women showed a slight tendency toward an older hypnotist (Fisher's Exact Test,  $p < .05$ ), but that was the only demographic to show an age preference and only for peak focus.

#### *Experiential Factors Affect Willingness to Try Hypnosis*

We asked participants to rate the amount of control a hypnotist has over a subject on a scale of 1 (*none*) to 5 (*total*) and to rate the amount of control a hypnotized person has over themselves on the same scale. Given that participants first indicated the hypnotist's level of control and then the subject's control, we computed the control bias as:

$$6 - (\text{hypnotist control} + \text{subject control}).$$

A complementary (and logical) pair of answers would make the differential equal to 0 (e.g., if a hypnotist has a control level of 2, then the subject has a control level of 4). A negative differential would imply that, after noting a given level of control for the hypnotist, the participant then attributed an equal, or higher, level of control to the subject than would be logically expected (e.g., 2, 5; 4, 3). A positive differential, however, would suggest that the participant considered the subject's level of control to be lower than what would be logically expected given the stated value for the hypnotist (e.g., 1, 3; 3, 2). Participants' self-perceived hypnosis knowledge correlated slightly with control bias in hypnosis ( $r = -.16$ ,  $p < .001$ ,  $N = 373$ ), where people who have a higher level of hypnosis knowledge tend to believe they have more self-control than a logical answer (to the pair of control questions) would imply (which also matches the .14 correlation,  $p < .01$ ,  $N = 376$ , between hypnosis knowledge and degree self-control under hypnosis).

Surprisingly, only 211 of the 374 (56%) people who responded gave complementary answers, which is consistent with the two measures of control having a correlation of  $-.63$  ( $p < .001$ ,  $N = 374$ ). Though the deviation from complementarity was not statistically different from 0 (one-sample  $t$  test:  $t[373] = 1.12$ ,  $ns$ ), the differential ranged from  $-3$  to  $+4$ . It appears that participants' control bias is associated with their willingness to try hypnosis at a party,  $F(2,371) = 3.62$ ,  $p < .05$ ,  $\eta^2 = .02$ , but there is no effect in the context of peak focus or street hypnosis (H6 partially confirmed). Those explicitly willing to try hypnosis at a

Table 5

*Average Levels of Self-Control, Hypnotist Control, and Control Bias by Demographics and Willingness to Try "Street Hypnosis" Under "Peak Focus," Party, and Public Conditions*

Category		Self-Control	Hypnotist Control	Control Bias	<i>n</i>
Gender	Female	2.88	3.18	-0.05	210
	Male	3.02	3.02	-0.06	164
Age	> 30	3.03	2.98	-0.01	187
	<= 30	2.86	3.24	-0.11	187
Ethnicity	Caucasian	2.95	3.09	-0.05	304
	Non-Caucasian	2.90	3.20	-0.10	70
Education	>= Bachelor's	3.01	3.11	-0.11	188
	< Bachelor's	2.88	3.11	0.00	186
Peak Focus	Yes	2.95	3.24	-0.18	147
	Maybe	2.92	3.09	-0.01	153
	No	3.00	2.89	0.11	74
Party	Yes	3.04	3.18	-0.21	114
	Maybe	2.88	3.21	-0.09	134
	No	2.94	2.94	0.12	126
Public	Yes	2.65	3.27	0.08	26
	Maybe	3.14	3.08	-0.22	64
	No	2.93	3.10	-0.03	284

*Note.* Negative Control Bias implies a bias toward self-control.

party showed a stronger bias toward self-control than those who would not try hypnosis (Scheffé test:  $\Delta M = -0.33$ ,  $p < .05$ ). But, in the context of peak focus or street hypnosis, there is no effect of control bias. Control bias does not vary by any demographic: all  $t(372) < 1.2$ ,  $t_{crit}(372) = 1.97$  ( $\alpha = .05$ ); see Table 5. Means for self-control and hypnotist control were compared across willingness to try the three forms of street hypnosis and demographics. Most of the means were too close together to be statistically significant (see Table 5). The exception is that those under 30 reported a stronger belief in hypnotist control than those who were over 30,  $t(373) = 2.41$ ,  $p < .05$ ; this effect was not replicated with education despite the age-education interaction.

While we expected that knowledge of hypnosis would affect people's willingness to try it (no demographic differences on knowledge of hypnosis), all  $t(375) < 1.5$ ,  $t_{crit}(375) = 1.97$  for  $\alpha = .05$ , our results showed, with a notable exception, that neither discussing hypnosis with someone knowledgeable, self-reported knowledge level of hypnosis, nor prior experience with hypnosis affected participants' willingness to try hypnosis. The exception was willingness to try hypnosis at a party, for which those who claimed some knowledge of hypnosis (any

nonzero degree, which was only 57% of the sample [ $n = 215$ ]) were disproportionately willing to try it, and those who claimed no knowledge of hypnosis refused to try it,  $\chi^2(2) = 6.62, p < .05$ . Thus, knowledge of hypnosis affects willingness to try but only in certain contexts, whereas there is no effect in others (H5 partially confirmed). Likewise, having tried hypnosis in the past led to a disproportionate willingness to try hypnosis only at a party,  $\chi^2(2) = 7.86, p < .05$ , though frequencies were close to expected values for those who reported never having been hypnotized (H4 partially confirmed but see Footnote 2). This is particularly interesting because, of the 32 people<sup>2</sup> who tried hypnosis previously, women (27), those over 30 (22), and Caucasians (31) were disproportionately represented (Fisher's Exact Test  $< .05$  for all), but there were no demographic differences for trying hypnosis at a party. In a cross-tabulation of each of the disproportionate demographics (gender, age, ethnicity), previous experience with hypnosis, and willingness to try at a party showed no disproportions, all  $\chi^2(2) < 5.05, \chi^2_{\text{crit}}(2) = 5.99$ , which indicates that the effect of experience is independent of demographics.

## DISCUSSION

Now that hypnosis is occurring with greater frequency outside of the therapeutic, experimental, and stage-show contexts, it is important to analyze attitudes toward hypnosis in these alternative scenarios with a broad sample. To that end, our study assessed people's willingness to try hypnosis in specific contexts, namely a party (both with and without the use of the term *hypnosis*) and in a public place ("street hypnosis"). Our study showed that willingness to try hypnosis varied by context, by prior knowledge/experience with hypnosis, and by demographics.

### *Willingness to Try in Various Contexts and the Use of the Term "Hypnosis"*

The findings show that context plays an important role in participants' willingness to try hypnosis (H7 fully confirmed). Consistent with prior findings (e.g., Gandhi & Oakley, 2005; Green, 2003), people are more willing to try hypnosis when it is termed "peak focus" rather than *hypnosis* and when they are in a safer condition (party rather than public, control bias in favor of the subject). Critically, the results also indicate that willingness to try hypnosis does vary by context,

<sup>2</sup>This was too small of a group to run analyses by type of experience (e.g., stage, therapy, etc.), but it is hoped that future studies can assess a larger sample with prior experiences of different types. We did not have a large enough sample of prior positive experiences with hypnosis ( $n = 21$ ) to test H4 fully.

which suggests that future studies consider not just whether someone would be willing to try hypnosis but the context in which the hypnosis would occur. Even if the professional hypnosis community would want to restrict hypnosis to clinical and research contexts (the merits of which are beyond the scope of this article), the reality is that hypnosis is occurring outside of those two conditions, and it behooves the hypnosis research community to consider and assess them in order to understand their potential impact on clinical and experimental uses/outcomes.

#### *Demographics and Context Interact to Affect Willingness to Try*

*Gender.* The data show that context affects how demographics are associated with people's willingness to try hypnosis. Extending the findings from previous studies (Capafons et al., 2008; Green et al., 2006; Spanos et al., 1987), we found that gender matters only for willingness to try peak focus, where women disproportionately say "maybe" or "no" and men disproportionately say "yes." That said, the sample of people who did not want to try hypnosis under any condition was predominantly female (40/62; 65%), which further highlights the gender differences. These results suggest (but do not confirm fully) that the fear shown by women is reflected in a blanket disinclination toward hypnosis relative to men, which differs from Green's (2003) finding of no gender differences (partially confirming H1a). As noted previously, the difference in this study is that the results vary by context, and all of the contexts mentioned in this study differ from Green's protocol, in which subjects refused to be hypnotized as part of the experiment. But, among those who are not completely against hypnosis, the gender differences are limited. As noted, our findings showed women having only a tendency toward unwillingness to try peak focus (versus men) and no other gender differences in tendency. This differs from having explicit gender differences in attitudes towards hypnosis. Yet, our results imply that there is an overarching unwillingness to consider hypnosis that may be driving some of the gender differences, which further suggests that an item like "I would never try hypnosis in any context" might be an important control variable in further studies of attitudes towards hypnosis. Further study on this is warranted.

*Age and education.* The study shows that participants 30 and under disproportionately say "yes" and participants over 30 disproportionately say "no" but only in the context of peak focus. This agrees with the previous finding that age is slightly inversely correlated with perceived collaboration between the hypnotist and subject (Capafons et al., 2008) but suggests a caveat to Barling and De Lucchi's (2004) finding that attitudes towards hypnosis are comparable across ages (H2a partially confirmed but see the confound below). Granted, attitudes and willingness to try are separate constructs, but most tests of attitudes

towards hypnosis include a measure of willingness to try (including the ATH), which implies a relationship. It is possible that our findings are due to older participants thinking the construct of peak focus a bit odd, or perhaps irrelevant, as they may face fewer distractions than Millennials (under 30) who have cellular phones, significant amounts of online social media, and constant stimuli. Interestingly, however, education, but not age, varied in the street hypnosis context, with those with a bachelor's degree being more likely to say "no." This is a bit odd because one would expect, all else being equal, that those who are more educated would have more knowledge of hypnosis and would thus find it safer (e.g., Carvalho et al., 2007). Alternately, it might also be the case that those who attended college were more likely to have seen stage hypnosis (as shows are popular on college campuses) and thus may have a more negative association. All of that said, the interdependence of age and education remains a confound, and one cannot rule out the fact the effects that appear on one variable are completely independent of the other. Especially in twenty-first-century America, it is highly common for people to have finished college by the age of 30, and thus it is necessary to get a far larger sample for finer discrimination of age and education, and how they affect the willingness to try street hypnosis. Future research will hopefully tease apart the potential effects.

*Ethnicity.* Expanding the current literature, the study examines the impact of ethnicity on willingness to try hypnosis. Under the context of peak focus, Caucasians tend to give an affirmative response and non-Caucasians tend to say "no." Again, this provides a caveat to studies like Capafons et al. (2008) that do not show major differences in ethnicity (though some minor ones did appear, and likewise in Green et al., 2006; H3 disconfirmed). As the sample was not sufficiently diverse to draw more explicit and nuanced conclusions about the relationship between ethnicity and willingness to try hypnosis under a variety of contexts, these findings are left as an indicator that context-specific attitudes towards hypnosis may vary by ethnicity more than general attitudes.

*Demographics of the hypnotist.* To our knowledge, this is the first larger-scale study to examine the effects of hypnotists' relative age or gender on participants' willingness to try hypnosis. In general, the results showed that those who were explicitly willing to try hypnosis (regardless of context) had no preferences regarding the gender or age of the hypnotist. But, those who were more ambivalent tended toward older hypnotists, which can be explained by feeling more secure with someone who ostensibly has more experience/knowledge (H2b partially confirmed). We are, however, at a loss to explain why those who were more ambivalent about trying hypnosis in the three contexts

tended to prefer a female hypnotist (regardless of subject's gender). Our only suggestion would be a gender stereotype that women are less threatening, especially to other women, but we consider this an inadequate explanation that decidedly highlights a need for further study (H1b partially confirmed).

#### *Prior Experience With Hypnosis Affects Willingness to Try*

*Control bias.* Unique to this study is the concept of control bias. The ATH and OAH tend to focus control-related questions on whether the hypnotist has control (Green et al., 2006), but the VSABTH-C (cf. Green et al., 2012) addresses whether the individual expects to have control under hypnosis and whether the hypnotist has control. Interestingly, most of the items on the scale that have to do with self-control under hypnosis load on the factor called *Control*, while most of the items that relate to the hypnotist having control over the subject are in the *Fear* or *Marginal* factors. Both of the latter factors inversely correlate with Control at around  $-.68$  ( $p < .001$ ; Green et al., 2012), which is close to the inverse correlation we found ( $-.63$ ). As the items are separate but correlated, we analyzed both forms of control separately and then combined them into a measure called "control bias," which reflects whether respondents think they have/lack a disproportionate level of control relative to the hypnotist.

At first blush, this may seem an odd measure, but 44% of the sample in this study selected answers to the two control questions that did not match. As an extreme example, some subjects reported that either the hypnotist or the individual has significant control (4/5) under hypnosis, and the other has complete control (5/5). In such cases, one would need to ascertain whether the respondent was biased toward the self or the hypnotist having a greater degree of control. While the degree to which attitudes towards hypnosis and willingness to try are related and moderated by the hypnotists' and/or subjects' degrees of control (cf. Yu, 2004), our results suggest that these relationships actually vary by context (partially confirming H6). As such, future studies may want to factor in the situations in which hypnosis occurs, over and above general attitudes towards trying hypnosis.

In contrast to previous findings, control bias did not vary by demographics in the present study. In particular, we did not find support for London's (1961) hypothesis that men tend to think they have more control and are thus more willing to try hypnosis.

*Knowledge of hypnosis and prior experience with hypnosis.* The study also showed that, for party hypnosis, people who had more self-perceived hypnosis knowledge and those who had personal experiences with hypnosis were more likely to try it. This finding is consistent



with the current literature that hypnosis knowledge and personal experience with hypnosis correlate with more favorable attitudes towards it (Barling & De Lucchi, 2004; Capafons et al., 2004, 2008; Capafons, Morales, et al., 2006; Carvalho et al., 2007; Green, 2003; Hawkins & Bartsch, 2000). But, we did not find the same results for peak focus or street hypnosis (H5 partially confirmed). We suggest that perhaps those with experience/knowledge of hypnosis differentiated it from peak focus, and that street hypnosis elicits different sets of concerns. This opens up avenues of future research to examine specifically how those with prior experience/knowledge with hypnosis view it (outside of professionals; cf. Mendoza, Capafons, & Espejo, 2009) both in general and in various contexts. We did find that prior experience with hypnosis does affect willingness to try in some contexts (H4 partially confirmed), which is consistent with prior research showing that, in general, personal experience with hypnosis leads to more positive attitudes towards hypnosis (Barling & De Lucchi, 2004; Capafons et al., 2008; Green, 2003; Hawkins & Bartsch, 2000). But, we lacked the sample size to tease out whether the valence and context of the prior experience affects willingness to try. Future studies will hopefully have a larger sample of both positive and negative experiences with hypnosis.

#### *Limitations and Future Directions*

In addition to the points raised above, there are several limitations to this study that can be addressed by further research. One of the difficulties in putting a survey on Amazon Mechanical Turk is that tasks tend to be short, and the survey consequently needed to be limited in length. As this study describes the willingness to try hypnosis under a variety of conditions, it would have been interesting to compare the contexts used in this study with more typical situations like clinical, stage, and research-based hypnosis. If performed in a future study, people may show a willingness to try the various hypnosis conditions, which, when analyzed in concert with attitudes towards hypnosis, can lead to a clearer understanding of how each of the contexts of hypnosis are perceived and influence responsiveness to hypnosis (both in general and in specific contexts). Likewise, because of the length constraints, this study was not able to include measures of attitudes towards hypnosis (e.g., VSABTH-C; cf. Green et al., 2012), which could more deeply explicate the reasons underlying willingness to try hypnosis in the various contexts. Also, because the survey was not conducted in person, we were not able to measure the relationship between hypnotizability and willingness to try, and, due to length constraints, we were not able to use a proxy like the Tellegen Absorption Scale (Tellegen, 1979; Tellegen & Atkinson, 1974). Future studies will hopefully consider these factors and analyses.

Another potential limitation was the method of presenting the questions to the participants. In Amazon Mechanical Turk, all of the survey questions are presented on the same screen. Thus, while we did not include the word *hypnosis* in the title of the survey, the instructions, or in the first question, it is possible that some participants may have seen the forthcoming questions or answered the survey out of order (the latter of which we consider unlikely), in which case they may have been primed to answer the first question by considering peak focus to be an analog of hypnosis. But, because people tend to answer surveys in the order in which the questions are presented, we consider this a minimal risk. That said, we did not want to introduce the term *hypnosis* before presenting *peak focus*, as the latter is supposed to be more innocuous and the use of the term *hypnosis* can be loaded (e.g., Gandhi & Oakley, 2005; Green, 2003). Because of this, however, we were not able to randomize the order of the questions (nor is it possible to randomize only some of questions in Amazon Mechanical Turk) and thus cannot rule out the possibility that the progression of the results may be due in part to the progression of the questions, as subjects may have inferred by the question order that street hypnosis should be perceived as riskier than hypnosis at a party. Future studies should randomize the order of the scenarios once the term *hypnosis* is introduced and would further do well to assess the degree to which the word *hypnosis* has an effect by also varying whether the introduction of the word *hypnosis* comes before or after *peak focus*.

Given the complex associations between the factors and people's willingness to try hypnosis under various contexts, it might be beneficial to examine the underlying motivations for people to consider certain factors under each context, thus providing more clear insights into the thoughts and reasoning behind people's considerations for trying hypnosis (Mohl, 2007). For example, future studies could ask participants about their train of thought when provided with the opportunity to try hypnosis, why they consider some factors relevant to their decisions while others not, and why they would or would not consider trying hypnosis under certain circumstances. The results of such studies could guide practitioners and researchers in designing pretalks.

Along those lines, the study asked participants to imagine certain circumstances and their willingness to try hypnosis under each of them. There could be discrepancies between people's forecasted willingness to try and their actual decisions to try hypnosis on the spot. To resolve this, future studies could create experimental conditions in which participants believe that they would have the opportunity to experience hypnosis if they choose to and thus to make the decisions to try hypnosis more realistic. Given the results of this study, there would need to be several iterations in which the gender and age of the hypnotist vary.

As this was a phenomenological study with a necessarily short survey, the results are meant to be broad. We were specifically looking for clear-cut differences to incite further study that will provide a more nuanced version of the results. As such, a more explicit view of willingness to try hypnosis (e.g., 7-point Likert scale) is actually beyond the scope of this study. Here, the goal was to show that willingness to try hypnosis, at the most basic yes/no/maybe level, varies by context, as a proof of concept to guide future studies. Future research will hopefully show a clearer hierarchy of contexts (including research, clinical, and stage hypnosis) and show a more nuanced view of willingness to try hypnosis and how it relates to attitudes towards hypnosis, hypnotizability, and outcomes of hypnotic interventions.

This more nuanced view is especially important because street hypnosis is not quite the same type of entertainment context as stage hypnosis, insofar as the former could be explicitly contextualized as the satisfaction of curiosity, while the latter is definitively contextualized as entertainment. Moreover, while it is important to understand how street hypnosis affects people's willingness to try hypnosis, to ascertain people's attitudes towards it, and to determine what sort of (dis)information comes of it, it is also important to place said understanding in the context of the full spectrum of hypnotic experiences. As such, future studies should consider the entire spectrum of hypnotic experiences (clinical, research, street, entertainment, and classroom) and how each setting affects people's knowledge of hypnosis and willingness to try it across the spectrum of settings (e.g., how does street hypnosis impact willingness to try clinical, classroom, and research-related hypnosis?).

That said, one of the concerns of this study is that of family-wise error. While we were conservative with our statistical tests, the fact remains that a great many statistical tests were run, and we cannot exclude the possibility of Type I errors in statistical tests where the probabilities were close to the criterion of .05. But, a number of the results had such strong significance that they would hold even with such a conservative countermeasure as study-wide Bonferroni adjustment. Moreover, as this study is aiming to open new lines of research into how context affects perceptions of hypnosis, we contend that the risk of family-wise error is acceptable relative to the goals of the study.

In addition, while some demographics did not afford enough diversity to paint a detailed view of the variation across these categorical variables, the results still show that willingness to try hypnosis not only varies by context but it varies by age, gender, ethnicity, and education. It is hoped that further research will illuminate the subtleties of how demographics affect people's choices of whether to try hypnosis.

## CONCLUSION

At its core, this study has demonstrated several key findings. First, although prior research has assessed the willingness to try hypnosis in general, the results of this study show that there is a more nuanced picture, as willingness to try hypnosis varies by the context in which hypnosis occurs. Second, earlier findings have varied in how demographics interact with attitudes towards hypnosis, and the results of this study suggest that this may be due to prior studies combining all possible hypnotic contexts (insofar as only some conditions showed demographic differences). Third, this study introduces the construct of control bias, and both confirm that the levels of control ascribed to the hypnotist and the subject are distinct (though related) and shows that the two loci of control also need to be considered in concert. Fourth, this study demonstrates that the demographics of the hypnotist (relative to the subject) matter in some contexts and that this, too, should be taken into account in future studies. As science delves increasingly deeper into hypnosis to explain its mechanics, it is hoped that the results of this study will open the door to more nuanced analyses that will allow researchers and clinicians to use hypnosis to bring people to their best selves.

## ACKNOWLEDGMENT

The authors would like to thank John C. Mohl for his comments on earlier versions of this article.

## REFERENCES

- Barabasz, A. (2006). Whither spontaneous hypnosis: A critical issue for practitioners and researchers. *American Journal of Clinical Hypnosis*, 48, 91–97.
- Barabasz, A., & Christensen, C. (2006). Age regression: Tailored versus scripted inductions. *American Journal of Clinical Hypnosis*, 48, 251–261.
- Barling, N. R., & De Lucchi, D. A. G. (2004). Knowledge, attitudes and beliefs about clinical hypnosis. *Australian Journal of Clinical and Experimental Hypnosis*, 32(1), 36–52.
- Barrett, D. (2006). Hypnosis in film and television. *American Journal of Clinical Hypnosis*, 49(1), 13–30.
- Barrett, D. (2010). Hypnosis in popular media. In D. Barrett (Ed.), *Hypnosis and hypnotherapy, Vol. 1: History, theory and general research* (pp. 77–96). New York, NY: Praeger/Greenwood.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20, 351–368.
- Capafons, A. (2002). Dissemination of hypnosis: Don't change the name, change the perspective. *Hypnosis International Monographs*, 6, 225–236.

- Capafons, A. (2004). Clinical applications of "waking" hypnosis from a cognitive-behavioural perspective: From efficacy to efficiency. *Contemporary Hypnosis, 21*, 187–201.
- Capafons, A., Alarcón, A., Cabañas, S., & Espejo, B. (2003). Análisis factorial exploratorio y propiedades psicométricas del cuestionario de creencias y actitudes hacia la hipnosis-cliente [Exploratory factorial analysis and psychometric properties of the questionnaire of beliefs and attitudes towards hypnosis-client]. *Psicothema, 15*, 143–147.
- Capafons, A., Cabañas, S., Alarcón, A., Espejo, B., Mendoza, M. E., Chaves, J. F., & Monje, A. (2005). Effects of different types of preparatory information on attitudes toward hypnosis. *Contemporary Hypnosis, 22*, 67–76.
- Capafons, A., Cabañas, S., Espejo, B., & Cardeña, E. (2004). Confirmatory factor analysis of the Valencia scale on attitudes and beliefs toward hypnosis: An international study. *International Journal of Clinical and Experimental Hypnosis, 52*, 413–433.
- Capafons, A., & Mendoza, E. (2010). Waking hypnosis in clinical practice. In S. J. Lynn, J. W. Rhue, & I. Kirsch (Eds.), *Handbook of clinical hypnosis* (2nd ed., pp. 293–317). Washington, DC: American Psychological Association.
- Capafons, A., Mendoza, M. E., Espejo, B., Green, J. P., Lopes-Pires, C., Selma, M. L., . . . Carvalho, C. (2008). Attitudes and beliefs about hypnosis: A multicultural study. *Contemporary Hypnosis, 25*, 141–155.
- Capafons, A., Morales, C., Espejo, B., & Cabañas, S. (2006). Análisis factorial exploratorio y propiedades psicométricas de la escala de Valencia de actitudes y creencias hacia la hipnosis, versión terapeuta [Exploratory factor analysis and psychometric properties of the Valencia Scale of Beliefs and Attitudes toward hypnosis, therapist versión]. *Psicothema, 18*, 810–815.
- Capafons, A., Selma, M. L., Cabañas, S., Espejo, B., Alarcón, A., Mendoza, M. E., & Nitkin-Kaner, Y. (2006). Change of attitudes toward hypnosis: Effects of cognitive-behavioral and trance explanations in a setting of heterohypnosis. *Australian Journal of Clinical and Experimental Hypnosis, 34*, 119–134.
- Carvalho, C., Capafons, A., Kirsch, I., Espejo, B., Mazzoni, G., & Leal, I. (2007). Factorial analysis and psychometric properties of the revised Valencia scale of attitudes and beliefs towards hypnosis-client version. *Contemporary Hypnosis, 24*, 76–85.
- Echterling, L. G., & Emmerling, D. A. (1987). Impact of stage hypnosis. *American Journal of Clinical Hypnosis, 29*, 149–154.
- Gandhi, B., & Oakley, D. A. (2005). Does hypnosis by any other name smell as sweet?: The efficacy of hypnotic inductions depends on the label hypnosis. *Consciousness and Cognition, 14*, 304–315.
- Gow, K. M., Mackie, C., Clohessy, D., Cowling, T., Maloney, R., & Chant, D. (2006). Attitudes and opinions about hypnosis in an Australian city. *Australian Journal of Clinical and Experimental Hypnosis, 34*, 162–186.
- Green, J. P. (2003). Beliefs about hypnosis: Popular beliefs, misconceptions, and the importance of experience. *International Journal of Clinical and Experimental Hypnosis, 51*, 369–381.
- Green, J. P., Houts, C. R., & Capafons, A. (2012). Attitudes about hypnosis: Factor analyzing the VSABTH-C with an American sample. *American Journal of Clinical Hypnosis, 54*, 167–178.
- Green, J. P., Page, R. A., Rasekhy, R., Johnson, L. K., & Bernhardt, S. E. (2006). Cultural views and attitudes about hypnosis: A survey of college students across four countries. *International Journal of Clinical and Experimental Hypnosis, 54*, 263–280.
- Hawkins, R., & Bartsch, J. (2000). The effects of an educational lecture about hypnosis. *Australian Journal of Clinical and Experimental Hypnosis, 28*, 82–99.
- Ipeirotis, P. (2010). *Demographics of Mechanical Turk* (CeDER-10-01 working paper). New York, NY: New York University.

- Johnson, M. E., & Hauck, C. (1999). Beliefs and opinions about hypnosis held by the general public: A systematic evaluation. *American Journal of Clinical Hypnosis*, 42, 10–20.
- Kihlstrom, J. F. (2002). *A human subjects protocol for hypnosis*. Retrieved from <http://socrates.berkeley.edu/~kihlstrm/HypnosisHumSubs.htm>
- Kirsch, I. (1993). Hipnoterapia cognitivo-comportamental: Expectativas y cambio de comportamiento [Cognitive-behavioral hypnotherapy: Expectancies and behavioral changes]. In A. Capafons & S. Amigó (Eds.), *Hipnosis, terapia de auto-regulación e intervención comportamental* [Hypnosis, self-regulation therapy and behavioral intervention] (pp. 45–62). Valencia, Spain: Promolibro.
- Kirsch, I. (1994). Clinical hypnosis as a nondeceptive placebo: Empirically derived techniques. *American Journal of Clinical Hypnosis*, 37, 95–106.
- Koizumi, S. (2001). Investigation into university students' views toward the notion of "hypnosis." *Japanese Journal of Hypnosis*, 46, 40–46.
- Large, R. G., & James, F. R. (1991). Public expectations of hypnosis. *Australian Journal of Clinical and Experimental Hypnosis*, 19, 103–106.
- London, P. (1961). Subject characteristics in hypnosis research: Part I. A survey of experience, interest, and opinion. *International Journal of Clinical and Experimental Hypnosis*, 9, 151–161.
- MacKillop, J., Lynn, S. J., & Meyer, E. (2004). The impact of stage hypnosis on audience members and participants. *International Journal of Clinical and Experimental Hypnosis*, 52, 313–329.
- Mason, W., & Suri, S. (2011). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior Research Methods*, 44, 1–23.
- Melei, J. P., & Hilgard, E. R. (1964). Attitudes toward hypnosis, self-predictions, and hypnotic susceptibility. *International Journal of Clinical and Experimental Hypnosis*, 12, 99–108.
- Mendoza, M. E., Capafons, A., & Espejo, B. (2009). Impact of reading a scientific journal issue about hypnosis on the beliefs and attitudes towards hypnosis among psychologists. *Psychology, Society, and Education*, 1, 25–37.
- Mohl, J. C. (2007). *Desire to the hypnotized: Intrinsic vs. extrinsic motivation*. Unpublished master's thesis, West Chester University, West Chester, PA.
- Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making*, 5, 411–419.
- Spanos, N. P., Brett, P. J., Menary, E. P., & Cross, W. P. (1987). A measure of attitudes toward hypnosis: Relationships with absorption and hypnotic susceptibility. *American Journal of Clinical Hypnosis*, 30, 139–149.
- Sprouse, J. (2011). A validation of Amazon Mechanical Turk for the collection of acceptability judgments in linguistic theory. *Behavior Research Methods*, 43, 155–167.
- Tellegen, A. (1979). On measures and conceptions of hypnosis. *American Journal of Clinical Hypnosis*, 21, 219–236.
- Tellegen, A., & Atkinson, G. (1974). Openness to absorbing and self-altering experiences ("absorption"), a trait related to hypnotic susceptibility. *Journal of Abnormal Psychology*, 83, 268–277.
- Wark, D. M. (2011). Traditional and alert hypnosis for education: A literature review. *American Journal of Clinical Hypnosis*, 54, 96–106.
- Yu, C. K. (2004). Beliefs and opinions regarding hypnosis and its applications among Chinese professionals in medical settings. *Contemporary Hypnosis*, 21, 177–186.

## Faktoren, die zur Bereitschaft, "Straßenhypnose" auszuprobieren, beitragen

Orin C. Davis und Xuan Gao

**Abstrakt:** Diese Studie geht kontextspezifisch auf die Bereitschaft von Menschen ein, Hypnose unterschiedlicher Ausrichtung auszuprobieren und unter welchen Bedingungen sie dazu bereit sind. Es wurden 378 Personen untersucht, die an einer internetbasierten Befragung teilgenommen hatten. Die Ergebnisse zeigten, daß die Bereitschaft der Personen, Hypnose auszuprobieren, vom Kontext abhing. Spezifisch gesehen sind Menschen eher bereit, Hypnose auszuprobieren, wenn sie als „Fokussierungsaufgabe“ denn als „Hypnose“ vorgestellt wurde und wenn sie die Umgebung als für sich sicher wahrnahmen. Des weiteren wird der Grad der Bereitschaft, Hypnose auszuprobieren, in Abhängigkeit vom Kontext auch von der Demographie der Teilnehmer, der Demographie der Hypnotiseure (im Vergleich mit der der Teilnehmer), der Kontrollbedürftigkeit der Teilnehmer und Vorwissen zu Hypnose, beeinflusst. Aufgrund dieser Ergebnisse sollte eine weitere Analyse von Hypnose, die in öffentlichem Kontext geschieht, und die Effekte, die sie auf persönliche Einstellungen und auf therapeutisches Outcome haben, erfolgen.

STEPHANIE REIGEL, MD

## Les facteurs qui encouragent le consentement des gens à se plier à une séance d'hypnotisme de rue"

Orin C. Davis et Xuan Gao

**Résumé:** Les chercheurs de la présente étude ont adopté une approche contextuelle pour examiner le consentement des gens à se soumettre à une séance d'hypnotisme dans diverses circonstances ainsi que les facteurs de ce consentement. L'étude a porté sur 378 participants qui ont rempli un questionnaire Web sur l'hypnotisme. Les résultats montrent que le consentement des gens à se plier à une séance d'hypnotisme varie selon le contexte. Plus précisément, les gens sont plus enclins à se soumettre à une séance d'hypnotisme lorsque celle-ci est présentée comme une « activité de concentration intense » plutôt que comme un « état d'hypnose » et lorsqu'ils se sentent en sécurité. En outre, certains facteurs, notamment les données démographiques associées aux participants, celles associées aux hypnotiseurs (par rapport aux sujets), l'emprise des participants, la connaissance de l'hypnose et le contexte ont une incidence sur le consentement des personnes à se faire hypnotiser. Les résultats incitent à des analyses plus poussées de l'hypnotisme en public et des effets de l'hypnose sur les attitudes ainsi que sur les résultats thérapeutiques

JOHANNE REYNAULT  
C. Tr. (STIBC)

## Factores que contribuyen a la disposición de intentar "hipnosis de calle"

Orin C. Davis y Xuan Gao

**Resumen:** Este estudio examina, partiendo de una aproximación del contexto específico, la disposición de las personas para intentar hipnosis en varias

condiciones y los factores que contribuyen a su disposición. Se examinó a 378 participantes, quienes completaron una encuesta en-línea sobre hipnosis. Los resultados muestran que la disponibilidad de las personas para intentar hipnosis varía por contexto. Específicamente, las personas están más dispuestas a intentar hipnosis cuando se enmarca como una "focalización máxima" en vez de "hipnosis," y cuando perciben que el medio ambiente es seguro. Inclusive, otros factores como los datos demográficos de los participantes e hipnotistas (relativos a los datos de los sujetos), la tendencia del participante a controlar, y el conocimiento sobre hipnosis influyen en el nivel de disposición de las personas a intentar la hipnosis, dependiendo del contexto específico. Los resultados sugieren que se necesita seguir analizando la hipnosis que ocurre en público y sus posibles efectos en las actitudes y resultados terapéuticos.

OMAR SÁNCHEZ-ARMÁSS CAPPELLO, PHD  
*Autonomous University of San Luis Potosi,  
Mexico*