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Laughter in the selection interview: impression management or honest signal?

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ABSTRACT

Laughter has been rarely investigated in the selection interview, but its involuntary and prosocial nature makes it a potential candidate for an honest signal of affiliation or a form of ingratiation. We investigated the distribution of laughter among participants, its relation to interview transitions and to applicant impression management and recruiter evaluations in a sample of real selection interviews. Applicants laughed more often than recruiters, and women laughed more often than men. Applicants were more likely to laugh close to transitions between phases of the interview. Applicant participation in shared laughter episodes was unrelated to self-reported impression management tactics (both honest and deceptive) and to recruiter perceptions of applicant self-promotion, but was positively related to recruiter perceptions of applicant transparency/honesty and to hiring recommendations. Unilateral applicant laughter was negatively related to recruiter perceptions of applicant self-promotion, honesty/transparency and hiring recommendations. Results suggest that applicant participation in shared laughter episodes may constitute an honest (difficult-to-fake) signal of affiliation.

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Introduction

The selection interview can be seen as a social interaction between applicants and recruiters, who may pursue goals that are at least partly misaligned (Bangerter et al., 2012). Applicants typically want to stand out from other applicants to obtain a job offer, and recruiters typically want to identify applicants' qualities and infer their future performance. To achieve their respective goals, applicants and recruiters are highly motivated to provide information that is to their advantage and will both deploy impression management (IM) tactics (Roulin et al., 2014; Stevens & Kristof, 1995; Wilhelmy et al., 2016). Accordingly, interpersonal processes constitute a central component of the interview and IM tactics have increasingly been investigated. Measurement of IM typically relies on self-reports, and applicants' and recruiters' perceptions often do not converge (Roulin et al., 2014). Moreover, past research has tended to focus heavily on applicant IM (Wilhelmy et al., 2016) and on verbal tactics like self-promotion or ingratiation (Higgins & Judge, 2004; Stevens & Kristof, 1995).

In this article, we explore a nonverbal social process in the selection interview that has received very little attention: laughter. Previous research suggests that laughter has some interesting interactional characteristics and plays an important role in regulating social interactions. First, it constitutes an informational cue that may help signal intentions in ambiguous situations (Glenn, 1989, 2003; Glenn & Holt, 2013; Keltner & Gross, 1999; Keltner et al., 2006; Provine, 2016; Van Kleef, 2010). Second, it reflects role asymmetries in institutional interactions (Glenn, 2010; Haakana, 2001, 2002; Tullar, 1989; West, 1984),

thus providing guidelines to participants to coordinate behaviour. Third, it is often associated with affection, affiliation, and intimacy (Glenn, 2003; Scott et al., 2014) and thus helps build rapport (Grønnerød, 2004; Scott et al., 2014). Finally, as any emotional expression (Keltner & Gross, 1999; Van Kleef, 2010), laughter may also serve strategic purposes, to project identities and manage impressions and therefore potentially affect interview outcomes. We investigated the distribution of laughter among interview participants, its use in coordinating progress in the interview and how it is related to self-reported applicant IM and recruiter perceptions of applicants in a sample of real selection interviews. Our findings suggest several avenues for research on laughter in the selection interview. Laughter can be considered an honest signal of positive affect and rapport that can be exhibited by both recruiters and applicants. We start by reviewing research on IM and selection interview signalling, before describing previous findings on laughter in social interaction. We then apply these findings to the context of the selection interview before describing our study.

Honest signalling in the selection process and impression management in the interview

In selection, applicants and organization assess each other to determine how competent the other party is and how committed they are to an employment relationship (Cuddy et al., 2011). This process takes place via the exchange of signals throughout the selection process (Bangerter et al., 2012). Because organizations' and applicants' goals are not perfectly aligned, both parties have an incentive to provide strategic information, i.e., to manipulate the impressions the other

party may build of them. In such situations, according to signaling theory, the only way to exchange meaningful information is by imposing a cost on the sender of the information, such that only qualified individuals can bear the cost of transmitting the signal (Zahavi & Zahavi, 1999). Such *honest signals* (i.e., revealing of a true quality of the sender) can be of two kinds: costly or difficult to fake. Costly signals are honest because they require investing resources, such that less-qualified parties are less able to bear the costs of the investment. Examples might be an organization's reputation or an applicant holding a degree from a prestigious university (Spence, 1973). Difficult-to-fake signals are honest because they are only partly under the control of the sender. An example might be a cognitive aptitude test, where less intelligent individuals will find it difficult to obtain a high score, because the cognitive processes underlying intelligent performance are difficult to improve by coaching.

In the selection interview, signal exchange occurs via verbal and nonverbal IM on the part of both recruiters and applicants. Applicant verbal IM has been extensively studied, and tactics vary along two main dimensions: Assertive vs. defensive (Bolino et al., 2008) and honest vs. deceptive (Leary & Kowalski, 1990; Levashina & Campion, 2006). Assertive IM involves proactively building images of a good applicant, either via self-promotion (e.g., describing one's achievements) or ingratiation (e.g., agreeing with the recruiter or expressing admiration of the organization). Defensive IM involves repairing negative images (e.g., explaining the reason for being laid off from a past job). Honest IM involves accurately and truthfully representing one's skills, abilities or experience, whereas deceptive IM, or faking, involves untruthful misrepresentation of these, via slight image creation, extensive image creation, image protection, or deceptive ingratiation (Levashina & Campion, 2006, 2007). Applicant IM can also be nonverbal, e.g., smiling, maintaining eye contact or shaking hands. Nonverbal behaviour in the selection can constitute a limiting case of strategic communication, because some nonverbal behaviours are less controllable than verbal behaviour. Recruiter IM has been little studied, but a recent study (Wilhelmy et al., 2017) suggested recruiters try to build images of attractiveness and authenticity, and try to signal both closeness (rapport, trustworthiness) and professional distance in the interview interaction. That study also documented the wide range of behaviours (verbal, paraverbal, nonverbal, use of artefacts and administrative acts) by which recruiters pursue these goals.

IM research has thus largely focused on applicant behaviours that are under conscious control. Because deceptive IM (or faking) is both common (Levashina & Campion, 2006, 2007) and difficult to detect by recruiters (Roulin et al., 2015), recruiters may be potentially subject to manipulation by applicants. Indeed, applicant IM positively affects recruiter evaluations, and recruiters' perceptions of applicant IM do not converge with applicants' self-reports (Roulin et al., 2014), suggesting that manipulation attempts may often be successful. Thus, often, verbal IM can be described as "cheap talk" (Farrell & Rabin, 1996) that does not convey reliable information. The field of IM research might do well to focus investigation on a wider range of IM behaviours, and especially those that may potentially constitute honest signals, and that may be produced by

both recruiters and applicants (Wilhelmy et al., 2016). Such signals could be found among nonverbal behaviour, which is often less controlled and more spontaneous than verbal behaviour. Nonverbal applicant behaviours in the interview like smiling, gaze, hand movements and body orientation are correlated with applicant performance (DeGroot & Motowidlo, 1999), and their level of control may vary, especially if applicants are focused on producing verbal discourse. Several nonverbal interview behaviours may potentially constitute honest signals of trustworthiness, likeability and credibility. Of these, perhaps the least well-understood is laughter.

Laughter in social interaction

Laughter is by nature a social phenomenon. It is ubiquitous in human interaction. People laugh on average 18 times per day, and in around 95% of conversations (Martin & Kuiper, 1999; Provine & Fischer, 1989), most of the time in presence of other people and when they are laughing (Glenn, 2003). The ubiquity of laughter masks the orderly nature of the phenomenon, which reflects both status differences, individual differences, and specific moments in the interaction.

The distribution of laughter among individuals reflects status differences (Oveis et al., 2016) or role asymmetries in institutional interactions (Glenn, 2010; Haakana, 2001, 2002; Tullar, 1989; West, 1984). Institutional representatives tend to laugh less often than laypersons. For example, in medical encounters, patients laugh more than physicians and their invitations to laugh are often declined (West, 1984). Likewise, applicants laugh more than recruiters in selection interviews (Adelswärd, 1989; Glenn, 2010). Laughter is also related to gender (Glenn & Holt, 2013). Men and women use laughter differently. Men use jokes as invitations to laugh (Jefferson, 1979), especially with a female partners, thereby offering opportunities to laugh without laughing. Women tend to extend invitations to laugh by laughing first. Additionally, women tend to use laughter to regulate the interactive climate and are more inclined to join in shared laughter than men (Adelswärd, 1989).

The distribution of laughter over an interaction is not random either. Laughter gives a hint of how participants progress through the interaction. It may be used to solve conversational dilemmas, such as the introduction of a new topic (Holt, 2010). It may also constitute a sign of consensus among participants and thus a signal to move on to a subsequent topic, activity, or phase of an interaction. Indeed, laughter tends to co-occur with topic changes (Bonin et al., 2012; Holt, 2010).

Finally, laughter is a sign of affiliation, affection or intimacy and is thus associated with positive outcomes regarding the quality of the interaction (Glenn, 2003; Scott et al., 2014). But these positive effects on relationships depend on whether laughter is shared or not. Unilateral laughter is often used for self-regulation. For instance, when people talk about their troubles (Jefferson, 1984) or engage in self-deprecation (Glenn, 2003; Glenn & Holt, 2013), speakers may laugh at their own problems or at themselves. In such situations, reciprocal laughter from recipients might suggest that a negative topic is not taken seriously. For instance, in medical interactions, patients may laugh while complaining about symptoms, but physicians typically do not join in, thus signalling they are

taking their patients' health issues seriously (Haakana, 2001, 2002). Unilateral laughter may also result from failed invitations. Speakers can strategically place laughter to produce laugh invitations (Jefferson, 1979) and these can be accepted or declined by invitees, the latter by refraining from joining in the speaker's laughter (Jefferson, 1979; West, 1984). Failed invitations constitute misunderstandings or misalignment among participants about how to construe a potentially laughable event.

On the other hand, shared laughter contributes to the construction of affiliation between conversational participants (O'Donnell-Trujillo & Adams, 1983; Schenkein, 1972). Shared laughter is often the result of a successful laugh invitation and thus constitutes a cooperative activity within the interaction, i.e., a friendly "time out". It has a causal impact on positive emotion, perceived similarity, and liking (Kurtz & Algoe, 2017). As such, shared laughter may be especially impactful for interactions between participants with zero prior acquaintance, because it may reduce uncertainty about participants' reciprocal feelings or intentions or reduce status or gender differences (Glenn, 2010; West, 1984). In such situations, trust may be lower, and thus honest (difficult-to-fake) signals may play an especially important role. Like many emotional expressions (Frank, 1988), laughter has several characteristics of such signals. Indeed, the production of laughter is under relatively weak voluntary control (Provine, 2016), making it more difficult to strategically manipulate. Moreover, people are able to distinguish spontaneous from voluntary laughter from its acoustic pattern (Bryant et al., 2018), thus suggesting that strategically manipulated laughter may potentially be detected and backfire. These characteristics may explain why shared laughter impacts feelings of affiliation (Bryant et al., 2016).

Laughter in the selection interview: impression management and honest signalling of affiliation

The selection interview is an institutional interaction (Drew & Heritage, 1992), which prescribes rules of normative conduct. One way the selection interview provides norms for conduct is through the interview script (Tullar, 1989), which specifies the complementary roles of recruiters and applicants and thus appropriate and less appropriate behaviours to adopt. The scripted character of the selection interview thus serves to reduce uncertainty for both applicants and recruiters.

For applicants, perhaps the most well-documented scripted behaviour is to engage in self-promotion, which increases attributions of competence (Bozeman & Kacmar, 1997; Stevens & Kristof, 1995). However, excessive self-promotion may also lead to attributions of low warmth (e.g., arrogance). Warmth can be projected by engaging in ingratiation tactics, which are "designed to evoke interpersonal attraction or liking" (Stevens & Kristof, 1995, pp. 588–589). To this end, verbal ingratiation tactics typically involve flattery or expressing agreement with the recruiter's opinions. But they carry the risk of backfiring (Bozeman & Kacmar, 1997) and thus being perceived as insincere. Because laughter is difficult to fake, it may serve as a more subtle ingratiation technique. For instance, by responding positively to recruiters' laugh invitations (and thus co-creating shared laughter), applicants can display affiliation and similarity

while at the same time demonstrating their knowledge and acceptance of the interview script (P. Glenn, 2010), and more generally their mastery of institutional contexts. Unlike shared laughter, unilateral laughter may be associated with negative outcomes for applicants. The sensitive conversational topics it is often associated with (Glenn, 2003; Jefferson, 1984) may not be appropriate in the selection interview. Moreover, applicants' unilateral laughter may be interpreted as a sign of nervousness, triggering inferences of immaturity (Glenn, 2013), or reflect the result of a failed laugh invitation (Jefferson, 1979). All of these situations may potentially lead to negative evaluations on the part of recruiters.

According to the interview script, recruiters are expected to manage the agenda, moving through the different interview phases (Wiersma, 2016) in a timely and professional manner. At the same time, recruiters also pursue goals of impression management, attempting to project attractiveness and authenticity, and to signal both closeness and professional distance (Wilhelmy et al., 2017). The institutional nature of the selection interview and the high stakes involved makes it a serious interaction. However, this does not preclude nonserious moments: "Sequences of interaction involving laughter and nonserious turns are recurrently used to accomplish serious tasks. Seriousness and nonseriousness are inextricably entwined in interaction" (Holt, 2013, pp. 88–89). One way nonserious moments can be constructed is by engaging in shared laughter. Recruiters may use laughter as an impression management tactic to create a casual atmosphere. Nonserious moments can be ended when participants reorient themselves to the interview agenda. Thus, by using laughter in their management of the interview agenda, recruiters can potentially manage both goals of appearing professional (and thus projecting competence) and appearing friendly (and thus projecting warmth).

This study

We investigated the role laughter plays in the selection interview. Such an investigation represents a potentially important contribution to IM research because laughter is an important social behaviour that may occur frequently in interviews but about which very little is known. Investigating laughter may contribute to expand understanding of nonverbal IM phenomena, especially due to its shared and partly involuntary nature. Indeed, that laughter is only partly controlled, and thus difficult to fake, makes it a potential candidate for an honest signal (Bangerter et al., 2012). We investigated four research questions.

Research Question 1 is *who produces laughter in the selection interview?* The first factor influencing laughter distribution we investigated was role. Individual differences in distribution and organization of laughter emerge from role asymmetries in institutional interactions (Glenn, 2010; M. Haakana, 2001, 2002; Tullar, 1989; West, 1984). Participants in selection interviews have asymmetrical roles. Recruiters are official representatives of an organization. They lead the interview and manage constraints of time and agenda (Glenn, 2010; Tullar, 1989). We thus expected to replicate previous findings on institutional interactions, with applicants producing more laughter than recruiters. For these reasons, recruiters have more licence

than applicants to decide when laughter is appropriate and when it is not. We thus also expected recruiters to initiate laughter episodes more often than applicants. The second factor we investigated was gender. Women tend to use laughter to regulate interactions and are more prone to share laughter than men (Adelswärd, 1989). We thus expected women to laugh more than men.

Research Question 2 is *when is laughter produced in the selection interview?* The selection interview is an organized activity that transitions through several main phases (e.g., the opening phase or the question-answering phase). In managing interview conversations, participants have to collaborate actively to reach interview objectives and move through the various phases in a timely manner. Suggesting that one might move on is a potentially delicate matter, which explains why laughter often occurs in conversation in relation to transitions (Bonin et al., 2012; Holt, 2010; Kangasharju & Nikko, 2009). We thus expect to observe differences in the distribution of laughter relative to transitions from one interview phase to the next, with laughter being more likely near such transitions.

Research Question 3 is *Is laughter related to self-reported applicant impression management?* If laughter constitutes an honest (i.e., difficult-to-fake) signal of affiliation on the part of applicants, then it should be only partly under voluntary control and only partly consciously perceived. As a result, it should not be related to self-reported applicant IM tactics, which reflect goal-directed (Bozeman & Kacmar, 1997) and thus conscious attempts to influence the impression they create in recruiters. On the other hand, by participating in shared laughter episodes when invited to by recruiters, laughter might constitute a means of ingratiation for applicants. If applicants participate in such episodes as a means of ingratiating themselves with recruiters, then the frequency of participation should be related to self-reported applicant IM.

Research Question 4 is *Is laughter related to recruiter perceptions of applicants?* A second criterion for laughter to constitute an honest signal of affiliation is that it should impact recruiter perceptions of applicants. Studying the social significance of laughter in selection interviews, Adelswärd (1989) demonstrated that successful applicants (i.e. who received an employment offer) participated in more shared laughter during their interview than unsuccessful applicants. Thus, the frequency of shared laughter should be positively related to recruiter perceptions of applicants or to potential hiring recommendations. However, applicants' unilateral laughter should be negatively related to such perceptions or recommendations.

We investigated these research questions in a data set of 80 real selection interviews. The use of real interviews is important because of their high-stakes nature that creates an affectively and motivationally charged setting, thus creating an ecologically valid opportunity to observe laughter. The interviews featured applicants applying for a wide range of positions. For each interview, two or three recruiters were present. Interviews were audiotaped and transcribed. From the transcripts, we decomposed interview talk into turns, defined as an uninterrupted stretch of talk produced by a speaker (Sacks et al., 1974). We transcribed whether the speaker laughed or not in a given turn. We thus analysed the data with the turn as the base unit of analysis for RQ1 and RQ2. Because turns (level 1) are nested in

interviews (level 2), we computed multilevel logistic regression to investigate whether role, gender and transitions significantly predict the production of laughter in a given turn. To investigate RQ3 and RQ4, applicants filled out self-reports of impression management after the interviews and recruiters reported on their perceptions of applicant IM and honesty and made hiring recommendations, i.e. for each interview (level 2). Therefore, we analysed the data with the interview as the unit of analysis for RQ3 and RQ4. We used partial correlations to test whether shared and unilateral laughter was related to all of these variables while controlling for the overall level of laughter.

Methods

Participants

80 real selection interviews were audiorecorded in two organizations in French-speaking Switzerland. Interviews involved an applicant and 2 or 3 recruiters, for a total of 111 participants. Eighty applicants participated (62.5% of women, *Age* = 33.95 years). They had already experienced on average 5.7 selection interviews (*SD* = 5.2) and had on average 13.07 years (*SD* = 11.5) of professional experience. 25.3% of them had managerial experience. 12.6% held a university diploma (Bachelor, Master or PhD). This figure is close to the national average for Switzerland (OFS, 2018), which features a strong vocational training programme and thus lower rates of university graduates. Thirty-one recruiters participated (35.5% women, *Age* = 45.10 years). They conducted on average 22.23 selection interviews per year. Three recruiters were human resource specialists, while 28 were line managers.

Procedure

We contacted the human resources department of both organizations to obtain access to interviews. The purpose of the study was explained to all participants as being about "communication" in the selection interview. Potential participants were first contacted by the HR department. Non-HR recruiters (line managers) were informed about the study at the time they selected applicants to interview (76% agreed to participate). They received an information letter and a consent form. Applicants were informed about the study at the time they were called for an interview and their initial agreement was asked for (89% of applicants agreed to participate). If they agreed, they later received an information letter, a consent form and the questionnaire about sociodemographic data and personality. At the time of the interview, the first author was present and audiorecorded it unobtrusively (she was seated apart from the arrangement of the participants, and after an initial introduction, did not participate in the interview interactions in any way). At the end of the interview, applicants filled out a second questionnaire about their use of IM (Roulin & Bourdage, 2017). Recruiters filled out a questionnaire about their perception of the applicant's use of IM (Stevens & Kristof, 1995), a hiring recommendation and some sociodemographic data. Finally, any questions were answered, and everyone was thanked for their participation.

Data preparation

Interviews were audiorecorded (duration: $M = 35.2$ m, $SD = 13.5$ m) and transcribed word-for-word. Transcribed features included fillers (*uh*), discourse markers (*okay*), laughter (*laughter*) and sighs (*sighs*). We used brackets [] to signal overlapping talk.

Measures

Gender

We coded the gender of the speaker producing each turn, man = 0 and woman = 1.

Role

We coded the role of the speaker producing each turn, applicant = 0 and recruiter = 1.

Transitions

To measure transitions, we developed a coding system to divide interviews into seven phases (Table 1). The coding system was devised based on prior literature (Wiersma, 2016) but also inductively, based on a preliminary reading of several interviews (inter-rater agreement was assessed by double-coding 14 interviews, Cohen's Kappa = .79). Each turn was attributed to one of the seven phases. Four phases were present during almost all 80 interviews: opening, question-answering, applicant's questions and closing. The other three phases occurred occasionally. A transition between phases is defined as the last turn of a given phase or the first turn of the next phase. Each turn thus featured either the presence (=1) or absence (=0) of a transition.

Laughter

We coded each turn for the presence (=1) or absence (=0) of laughter, based on the transcripts. We also calculated by interview a total score of turns featuring laughter.

Table 1. Phases occurring in the selection interviews and percentage of interviews they were present in.

Phase	Definition/contents	Presence (%)
1 Opening	Getting the applicant comfortable, defining the interview procedure, introduction of the participants	100
2 Applicant self-presentation	Applicant self-presentation, spontaneously or following recruiters' invitation	52.5
3 Question-answer	Recruiters' questions and applicants' answers about applicant education, professional experience, motivation, professional goals, and so on.	100
4 Organization presentation	Recruiters' presentation of the organization, the position or the team	67.5
5 Simulation	Applicant asked to engage in role-play or answer situational question	10
6 Applicant questions	Any question applicants ask during the interview, spontaneously or by invitation from recruiters	97.5
7 Closing	Discussion about salary, administrative details and subsequent events in the selection procedure	100

$N = 80$.

Laughter sharedness

We coded whether each instance of laughter was unilateral (=0) or shared (=1). We defined shared laughter as *two or more successive turns in which the presence of laughter was coded*. To feature shared laughter, a turn had to (1) be coded as containing laughter and (2) be preceded or followed by a turn coded as containing laughter. We also calculated a total score of turns by interview containing unilateral laughter and shared laughter.

Shared laughter episodes

All turns coded as featuring shared laughter and following each other were coded as a shared laughter episode. We calculated a total score of shared laughter episodes by interview.

Initiation of shared laughter episodes

For each shared laughter episode, we coded who initiated the episode, i.e. the person who laughed first (=1). We also calculated a total score by interview for each participant (applicants and recruiters).

Applicant IM (honest and deceptive)

We used a 30-item scale of applicant IM developed by Bourdage et al. (2018). The scale (1–5, with 1 = *completely disagree*, and 5 = *completely agree*) comprises subscales for honest IM (self-promotion, ingratiation, defensive; 12 items, $\alpha = .84$) and deceptive IM (slight image creation, extensive image creation, ingratiation, image protection, 18 items, one item with zero variance removed, $\alpha = .79$). Examples of honest IM are "I made sure the interviewer was aware of my skills and abilities" (self-promotion) or "I discussed interests I shared in common with the interviewer" (ingratiation). Examples of deceptive IM are "I tried to same opinions and attitudes as the interviewer" (ingratiation) or "I exaggerated my responsibilities on my previous jobs" (slight image creation).

Recruiter perceptions of applicant IM

We used a scale (1–5, with 1 = *completely disagree*, and 5 = *completely agree*) to measure recruiter perceptions of applicant IM, focusing on self-promotion. The scale included 5 items from Stevens and Kristof (1995) (e.g., "the applicant described his/her skills and abilities in an attractive way") plus 3 additional items (e.g., "the applicant presented and expressed themselves convincingly"), $\alpha = .92$.

Recruiter perceptions of applicant honesty

We used a 3-item scale ($\alpha = .80$) from Roulin et al. (2014) to measure how honest or transparent recruiters perceived applicants to be. Items were "it was easy for me to differentiate facts from fiction in the applicant's responses", "it was easy for me to judge applicant honesty", and "it was easy for me to see who the applicant really was". A five-point-rating scale was used, where 1 = *completely disagree*, and 5 = *completely agree*.

Recruiter hiring recommendations

We measured recruiters' hiring recommendations using a single item, *to which extent do you think this applicant should be hired for the job? from 0% (the lowest recommendation) to 100% (the highest recommendation)*. We calculated a mean score by applicant over all recruiters present in the interview

from 0 to 100. Hiring recommendations correlated significantly with subsequent job offers, $r(80) = .56, p < .01$.

Analyses

We investigated RQ1 and RQ2 using multilevel logistic regression, because our dependent variable (laughter) was binary (presence or absence of laughter). We used multilevel modeling because turns (level 1) are nested in interviews (level 2). We modelled interviews as random effects and predictors (role, gender, transitions) as fixed effects. We first calculated a null model with interviews modelled as random effect but no predictors. We then fitted a multilevel model with role, gender and transition as predictors (Model 1), as well as the interaction terms (Model 2). We investigated RQ3 and RQ4 using partial correlations between unilateral laughter, shared laughter episodes, episode initiation, episode participation, applicant honest and deceptive IM and recruiter perceptions of applicant IM and honesty and hiring recommendations, controlling for the amount of laughter by interview. It is important to control for the amount of laughter by interview to avoid confounds between the variables of interest and the general level of hilarity in the interview or the duration of the interview.

Results

Descriptive statistics for Research Question 1 variables appear in Tables 2 and 3. Descriptive results (Table 3) showed that in the 80 interviews, a total of 2,984 turns containing laughter were produced (out of 46,860 turns, i.e., 6.37% of turns). In terms of role, applicants produced 57.21% of turns containing laughter and recruiters 42.79%. In terms of gender, women produced 59.72% of turns containing laughter and men 40.28%. Finally, 3.62% of turns containing laughter were produced during a transition.

Research Question 1 was *who produces laughter in the selection interview?* Research Question 2 was *when is laughter produced in the selection interview?* To investigate these two

Table 2. Means (*M*), standard deviations (*SD*) and correlations between laughter, role, gender and transitions.

Variable	<i>M</i>	<i>SD</i>	1	2	3
1 Laughter	0.06	0.24			
2 Role	0.55	0.50	-.07**		
3 Gender	0.48	0.50	.06**	-.27**	
4 Transition	0.03	0.17	.01	.03**	.02**

N = 46,860 turns. Role: applicant = 0, recruiter = 1. Gender: men = 01, women = 1.
* $p < .05$; ** $p < .01$; *** $p < .001$

Table 3. Crosstabs of laughter by role, gender and transition.

Role	Gender	Transition		Total	Total		
		No	Yes				
Applicants	Men	485	29.52%	16	25.00%	501	29.35%
	Women	1158	70.48%	48	75.00%	1206	70.65%
	Total	1643		64		1707	57.21%
Recruiters	Men	686	55.64%	15	34.09%	701	54.89%
	Women	547	44.36%	29	65.91%	576	45.11%
	Total	1233		44		1277	42.79%
Total	Men	1171	40.72%	31	28.70%	1202	40.28%
	Women	1705	59.28%	77	71.30%	1782	59.72%
	Total	2876	96.38%	108	3.62%	2984	

N = 2,984 turns with the presence of laughter.

research questions, we used turns as unit of analysis (*N* = 46,860). We computed multilevel logistic regression models (Table 4). First, we examined the variation between levels. Using the interview intercept variance from the null model, we calculated the intraclass correlation coefficient (ICC) for interview. Results were significant and showed that 11.93% of the total variance in laughter was attributable to between-interview variation (level 2) and 88.07% was attributable to within-interview variation (level 1). Then, we computed a model with role, gender and transition as predictors (Model 1). Results showed that role, gender and transition significantly predicted laughter. Being an applicant (compared to being a recruiter) in the selection interview increased the odds of laughter production in a turn by 38%. Being a woman increased the odds of laughter production in a turn by 33%. Finally, the presence of a transition between two phases increased the odds of laughter production in a turn by 27%. Model 1 showed a significant improvement over the Null Model ($\Delta -2 X \log = 237.10, df = 3, p < .001$). Finally, we computed a model with role, gender and transition and all interaction terms as predictors (Model 2). All three predictors from Model 1 remained significant, and the interaction between role and transition significantly predicted laughter (Figure 1). Applicants have a higher probability of producing laughter on transitions, while recruiters have a lower probability. Model 2 showed a significant improvement over Model 1 ($\Delta -2 X \log = 10.48, df = 4, p < .05$).

Research Question 3 was *Is laughter related to self-reported applicant impression management?* Neither applicant unilateral laughter, nor applicant initiation of shared laughter episodes nor applicant participation in shared laughter episodes was related to applicants' self-reports of honest or deceptive IM, controlling for the amount of laughter (Table 5). This pattern of findings suggests that laughter is not used by applicants as a conscious IM strategy.

Research Question 4 was *Is laughter related to recruiter perceptions of applicants?* Applicant unilateral laughter was significantly negatively correlated with recruiter perceptions of self-promotion and honesty and with hiring recommendations. Applicant initiation of shared laughter episodes was unrelated to recruiter perceptions of self-promotion and honesty and to hiring recommendations. However, applicant participation in shared laughter episodes was significantly positively correlated with recruiter perceptions of applicant honesty and with hiring recommendations, but not with recruiter perceptions of self-promotion (Table 5). This pattern of findings suggest that unilateral laughter is evaluated negatively by recruiters, whereas applicant participation in shared laughter episodes is taken by recruiters as a signal of honesty, but not of applicant self-promotion.

Discussion

Laughter is more than just a trivial and spontaneous phenomenon. It helps reduce ambiguity, establish and manage relationships and project identities in everyday and institutional interactions (Glenn & Holt, 2013). To date, few studies have investigated laughter in the selection interview, and those that have done so have used qualitative approaches (Adelswärd, 1989; Glenn, 2010). We extended this line of research with a quantitative analysis of laughter in a data set

Table 4. Summary of multilevel logistic regression models predicting laughter.

Random effects	Null Model					Model 1					Model 2								
	Name	Variance	SD			Name	Variance	SD			Name	Variance	SD						
Interviews	Intercept	.45***	.67			Intercept	.40	.63			Intercept	.41	.64						
Fixed effects	Estimate	SD	OR	[95% CI]	OR	Estimate	SD	OR	[95% CI]	OR	Estimate	SD	OR	[95% CI]	OR				
Intercept	-2.80	***	.08	.06	.05	.07	-2.72	***	.09	.07	.06	.08	-2.71	***	.09	.07	.06	.08	
Role							-48	***	.04	.62	.57	.67	-.50	***	.07	.61	.53	.70	
Gender							.29	***	.05	1.33	1.19	1.48	.25	**	.08	1.28	1.09	1.50	
Transition							.24	*	.10	1.27	1.03	1.55	.57	*	.29	1.76	1.03	3.00	
Role * Gender													.06		.10	1.06	.87	1.29	
Role * Transition													-.91	*	.40	.40	.19	.85	
Gender * Transition													-.06		.33	.95	.53	1.83	
Role * Gender * Transition													.52		.48	1.68	.66	3.99	
log-2 likelihood																			-10,678.40
diff log-2																			237.1***
																			-10,678.40
																			10.476*

N = 46,860 turns at talk (level 1), N = 80 interviews (level 2). * = p < .05, ** = p < .01, *** = p < .001

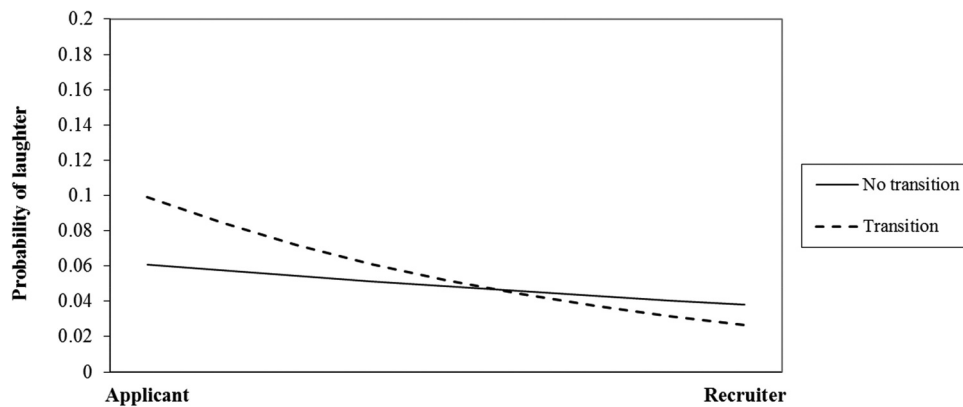


Figure 1. Two-way interaction effects of role and gender predicting laughter.

Table 5. Means (M), standard deviations (SD) and partial correlations (controlled for laughter by interview) for variables relevant to Research Questions 3 and 4.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1 Unilateral laughter (applicant)	13.93	13.50											
2 Unilateral laughter (recruiters)	5.65	4.77	-.621***										
3 Shared laughter episode	7.24	5.36	-.858***	.254**									
4 Episode initiation (applicant)	3.61	3.14	-.415***	-.093	.634***								
5 Episode initiation (recruiters)	3.59	2.98	-.748***	.422***	.735***	-.052							
6 Episode participation (applicant)	3.81	3.36	-.464***	-.068	.451***	.058	.519***						
7 Episode participation (recruiters)	6.70	5.47	-.784***	.146	.798***	.602***	.504***	.319**					
8 Honest IM (applicant)	3.42	0.60	-.179	.272*	-.013	-.154	.152	.025	.102				
9 Deceptive IM (applicant)	1.29	0.32	-.117	.049	-.067	-.143	.201	.201	.093	.332**			
10 Perceived self-promotion (recruiter)	3.44	0.74	-.318**	.225	.252*	-.104	.424***	.200	.165	.175	-.033		
11 Perceived honesty (recruiter)	3.66	0.58	-.361***	.305**	.227*	-.117	.398***	.263*	.167	.223	.069	.633***	
12 Hiring recommendation	59.08	24.00	-.338**	.289*	.289*	-.03	.415***	.257*	.218	.061	-.049	.843***	.621***

N = 74–80. * p < .05; ** p < .01; *** p < .001

of real selection interviews. The interactional and psychological properties of laughter make it a potential candidate for being an honest signal of affiliation in the selection interview, and thus an interesting candidate for expanding our understanding of IM processes.

Research Question 1 investigated how laughter is distributed among individuals, focusing on effects of role and gender. Regarding role, 57% of laughs were produced by applicants. While this asymmetry is not large, it converges with previous findings in medical interactions, which show similar proportions of laughter produced by patients (61%) (Haakana, 2001, 2002; West, 1984). Thus, recruiters' role as organizational representatives and applicants' role as outsider affects laughter

distribution similarly to other institutional interactions. Regarding gender, 60% of laughs were produced by women in our data, again similar to previous findings (56%) (Adelswärd, 1989).

Research Question 2 investigated when laughter is produced, focusing on whether it is associated with transitions between different phases of the interview. Results showed that laughter is significantly more likely to occur during transitions. Moreover, applicants are especially more likely to produce laughter during transitions. Because transitions are moments during the interview when participants move from one topic or activity to the next, their coordination is somewhat delicate (e.g., suggesting moving to another topic might be

face-threatening for participants who are enjoying the current topic). Laughter may constitute a useful tool to solve such dilemmas and progress through the interaction. That applicants laugh more often during transitions suggests that because recruiters are responsible for managing the interview agenda (Glenn, 2010; Tullar, 1989), they may also produce invitations to laugh for applicants during transitions.

Research Questions 3 and 4 assessed whether shared laughter could potentially be considered an honest (difficult-to-fake) signal of affiliation. We found that applicant laughter behaviour in its various forms (unilateral laughter, initiation of shared laughter episodes, participation in shared laughter episodes) was unrelated to applicant self-reported honest and deceptive IM, suggesting that laughter is not consciously used as an IM tactic. Moreover, unilateral laughter was negatively evaluated by recruiters, whereas applicant participation in shared laughter episodes (initiated by recruiters) is associated with recruiter perceptions of applicant honesty or transparency (but not with recruiter perceptions of self-promotion) and ultimately, with hiring recommendations.

These findings have important implications for a signalling approach to social interaction in the selection interview. Participation in shared laughter episodes seems to be spontaneous (i.e., unrelated to self-reports of honest and deceptive impression management), and reflects positive evaluations (notably of honesty or transparency) by recruiters. Shared laughter thus fulfils two criteria for constituting an honest (difficult-to-fake) signal of affiliation (Bangerter et al., 2012): It is partly beyond conscious self-report and affects recruiter perceptions and evaluations. As such, the current findings expand our understanding of the range of potential signalling behaviour to more affective and nonverbal signals. Subtle behaviours like laughter have a collaborative structure (shared laughter episodes) that may be indicative of genuine information about rapport between applicants and recruiters. On the other hand, unilateral laughter seems to have a negative effect on recruiters.

This study has some limitations. First, we only coded shared laughter episodes initiated by laughter. We did not code for other potential initiators such as jokes, funny stories or non-verbally conveyed invitations like smiling (Glenn, 2003, 2010; Haakana, 1999). We focused on initiations by laughter because these are the most common means for inviting laughter (Jefferson, 1979), and often other invitation means remain ambiguous and subject to interpretation (Glenn, 2010). Second, the data we used were audiorecorded and we were not able to consider inaudible manifestations of laughter. Due to these issues, we might have missed some relevant invitations or responses. Third, we measured interview outcomes from the recruiters' perspective (hiring recommendations). It would be very interesting to also investigate applicants' perspectives and explore the impact of laughter from both sides of the interview. Indeed, for recruiters a successful interview is more than a correct evaluation and includes conveying favourable images of themselves and the organization to applicants (Glenn, 2010; Wilhelmy et al., 2017). The impact of recruiter laughter on applicant perceptions is important to investigate (Glenn, 2010). Fourth, the level 2 sample size was rather small, even if the sample is larger than for some previous studies on laughter.

Despite these limitations, our findings point to three potentially important areas for further investigation: (1) what laughter (either shared or unilateral) is a signal of, (2) how participants interpret laughter phenomena, i.e., how laughter impacts judgements, and (3) the intentional use of laughter to manage impressions, and the question of whether laughter can be faked. For guiding research on these issues, the signalling approach we adopted can be complemented by judgement models like the lens model (Brunswick, 1955) or the realistic accuracy model (Funder, 1995). The question of what laughter is a signal of corresponds to the question of cue validity in lens models, and the question of how laughter impacts judgements corresponds to the question of cue utilization. Regarding cue validity, laughter may reflect personality traits like extraversion (Ruch & Deckers, 1993). However, laughter in and of itself may reflect different kinds of humour, and extraversion is mainly related to affiliative and self-enhancing humour (Mendiburo-Seguel et al., 2015). Thus, the validity of laughter for indexing extraversion or personality traits more generally may depend on the type of humour that generates the laughter. Regarding how laughter impacts judgements, we have shown that recruiters evaluate applicants who participate in shared laughter episodes as more transparent and honest, but the processes that mediate this relationship remain unclear. One possibility is that participants' inferences of relationship quality (Bryant et al., 2016) is driven by the interpersonal synchrony involved in shared laughter (Mogan et al., 2017; Semin, 2007). Laughter may also lead to inferences of other social-relational parameters like reward, affiliation or dominance by judges removed from an interaction (Wood et al., 2017). These inferences may be fuelled by separate acoustic components of laughter like pitch, voicing or duration (Wood et al., 2017). It may even be possible to automatically extract them from audiorecordings of interviews to build machine learning pipelines that predict interview outcomes (Gatica-Perez, 2009). Thus, future research should examine these components and their role in judgement processes.

We found that laughter was unrelated to self-reported impression management, which suggests it may constitute an honest (difficult-to-fake) signal of affiliation. However, laughter is partly under volitional control (Provine, 2016). While judges can discriminate between spontaneous and volitional laughter in experimental settings, accuracy is not perfect (Bryant et al., 2016), leaving room for manipulation by interview participants. Voluntary versus spontaneous participation in shared laughter may also be more difficult to judge in a multiparty setting like the selection interview, because telltale acoustic parameters of an individual's laugh may be difficult to pick out from the hubbub. Moreover, unlike other nonverbal behaviours like gaze, gesture or facial expressions which are synchronized with speech (Bavelas & Chovil, 2000) and thus difficult to control independently while speaking, laughter is disjunct from speech and thus it may be possible for participants to allocate more resources to control it. But laughter may not only be used to fake emotion, but also to elicit reactions from other participants. Experienced interviewers, for example, may use laughter to put applicants at ease, thus potentially indirectly eliciting useful cues (Lievens et al., 2015). Thus, more research is needed into the potential for laughter to be used strategically by both applicants and recruiters.

Finally, research might focus on moderators of processes of cue utilization, cue validity and faking. Two kinds of variables might be considered: Individual differences and situations. For example, individual differences in cue utilization by judges (recruiters) may arise from implicit trait policies (Motowidlo et al., 2006), rater idiosyncrasy (Uggerslev & Sulsky, 2008), or dispositional intelligence (Christiansen et al., 2005). Features of the situation might moderate cue validity. For example, laughter may be more or less prevalent depending on the appropriateness of the situation, and by providing or withholding laughter invitations, recruiters may implicitly communicate this. Likewise, unilateral laughter may result from an individual's misreading of the appropriateness of laughter in a situation. What counts as a "situation" could mean the macro-situation, i.e., the interview setting, or a particular organizational or work group culture (Holmes & Marra, 2002) or even national culture. But "situation" also applies to micro-situations like a particular moment in an interaction, where the appropriateness of laughter may vary. Our results suggest that transitions between interview phases may constitute such a microsituation where laughter is more appropriate.

Disclosure statement

No potential conflict of interest was reported by the authors.

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