Competent and Warm? How Mismatching Appearance and Accent Influence First

Impressions

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Abstract

Most research on ethnicity has focused on visual cues. However, accents are strong social

cues that can match or contradict visual cues. We examined understudied reactions to people

whose one cue suggests one ethnicity, whereas the other cue contradicts it. In an experiment

conducted in Germany, job candidates spoke with an accent either congruent or incongruent

with their (German or Turkish) appearance. Based on ethnolinguistic identity theory, we

predicted that accents would be strong cues for categorization and evaluation. Based on

expectancy violations theory we expected that incongruent targets would be evaluated more

extremely than congruent targets. Both predictions were confirmed: Accents strongly

influenced perceptions and Turkish-looking German-accented targets were perceived as most

competent of all targets (and additionally most warm). The findings show that bringing

together visual and auditory information yields a more complete picture of the processes

underlying impression formation.

Keywords: non-native speech, stereotypes, ethnolinguistic identity, expectancy

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Impressions

In today's world of migration, people one meets have different cultural backgrounds

(Davis, D'Odorico, Laio, & Ridolfi, 2013). National and ethnic distinctions in use for

centuries are becoming outdated and inaccurate. As societies become more multicultural, we

increasingly encounter people of mixed ethnicity, whose appearance and accent may violate

expectations (King-O'Riain, Small, Mahtani, Song, & Spickard, 2014). In Germany, for

instance, people may expect that a Turkish-looking person speaks German with a Turkish

accent, and they may be surprised to hear native-like German (Hansen, Steffens, Rakić, &

Wiese, in press). Up to now, social psychological research has largely overlooked the

existence of such individuals and how impressions of them are formed. In the current

research, we investigate how people evaluate others based on their appearance and accent,

when one of these cues indicates that the person is an outgroup member (e.g., looks Turkish)

and the other that the person is an ingroup member (e.g., speaks with a standard German

accent).

When people encounter others, several cues indicating their ethnicity can be congruent

or incongruent with each other. In the following, we focus on physical appearance (Dion,

Berscheid, & Walster, 1972) and voice information (Zuckerman & Driver, 1989), specifically

accent, as two powerful cues indicating social category memberships.

Language and manner of speaking are at the core of ethnolinguistic identity theory

(ELIT; Giles, Bourhis, & Taylor, 1977; Giles & Johnson, 1981, 1987). Based on social

identity theory (Tajfel, Billig, Bundy, & Flament, 1971; Tajfel & Turner, 1979), ELIT focuses

on the importance of language and accent in identity formation and maintenance. ELIT

postulates that language is the most important marker of ethnic identity and others'

impressions are often based on accents. Researchers have shown that people who speak with a

nonstandard accent are perceived as less intelligent and of lower social status (Fuertes,

Gottdiener, Martin, Gilbert, & Giles, 2012; Giles & Powesland, 1975), but can also be seen as more loyal and sociable (Fuertes et al., 2012; Giles, 1971).

Accent-based discrimination is an unrecognized potential threat often overlooked in research and in real life (Crandall, Eshleman, & O'Brien, 2002; Hansen, Rakić, & Steffens, 2014; Ng, 2007). In the US 21% of the population speaks a language other than English at home and among them, 42% speak English less than very well (U.S. Census Bureau, 2011). In Germany about 9% of the population speaks a language other than German at home and 63% of them speak German less than very well (Haug, 2008). Thus, native speakers may expect that a foreign-looking person speaks with a foreign accent (Cheryan & Monin, 2005; Hirschfeld & Gelman, 1997).

Appearance and accent of a person can both be indicators of this person's ethnicity. Therefore, people with mismatching appearance and accent could be difficult to categorize, others could be surprised when encountering them, and they could be evaluated differently than non-surprising people. There is very little research on reactions to people who embody conflicting cues about their categorization, such as mismatching appearance and accent.

To the best of our knowledge, only a few studies directly contrasted the role of appearance and accent in person perception. Two early studies did not aim at contrasting different types of cues, but found stronger effects of speech style than of racial labels on the perception of targets (Jussim, Coleman, & Lerch, 1987; McKirnan, Smith, & Hamayan, 1983). Later studies explicitly aimed at contrasting appearance and accent and showed that accent is a stronger cue than appearance for ethnic categorization in adults (Rakić, Steffens, & Mummendey, 2011), ingroup favoritism in children (Kinzler, Dupoux, & Spelke, 2007; Kinzler, Shutts, Dejesus, & Spelke, 2009), and beliefs about general knowledge of foreign-accented speakers (Rödin & Özcan, 2011). The effects were observed across cultures (US, France, Germany, Sweden) and with different dependent variables. Both Rakić and colleagues

(2011) and Pietraszewski and Schwartz (2014b) independently ran similar who-said-what

experiments in Germany and the US, to reveal that accent is crucial in social categorization.

Going beyond mere categorization, it is interesting how appearance-accent

(mis)matches influence evaluations. A possible mechanism at work here could be expectancy

violations. Expectancy violations theory postulates that violations of expectations produce

more extreme outcomes than situations that match those expectations (e.g., Burgoon &

Burgoon, 2001; Roese & Sherman, 2007). For example, Blacks with strong academic

qualifications were evaluated as more competent than Whites with similar credentials, which

represented positive violations of expectations based on the stereotype that Blacks are less

academically-oriented (Jackson, Sullivan, & Hodge, 1993). Similarly, women with top

credentials were evaluated more favorably as leaders than similarly qualified men because

they violated stereotypical gender expectations (Rosette & Tost, 2010). Conversely, Whites

who spoke nonstandard English were viewed more negatively than Blacks who did,

representing negative expectancy violations (Jussim et al., 1987).

The Current Research

The present research examined how appearance and accent, suggesting the same or

different ethnicities, influence how people are evaluated. We let our participants evaluate

others on the two fundamental stereotype dimensions *competence* and *warmth* (Abele &

Wojciszke, 2007; Fiske, Cuddy, Glick, & Xu, 2002). Because Turks are the largest immigrant

group in Germany, we chose Germans and Turks as targets (Federal Ministry of the Interior,

2007). In Germany, as in the US and in many other countries, Turks (and Muslims more

broadly) are stereotypically perceived as low on competence and warmth (Asbrock, 2010;

Froehlich, Martiny, Deaux, & Mok, 2016). In contrast, the majority ingroup tends to self-

stereotype as high on both dimensions (Fiske, Cuddy, & Glick, 2007; Fiske et al., 2002). In

the case of Germans, in some studies they perceive themselves as competent and warm

(Asbrock, 2010; Eckes, 2002), in some as competent and moderately warm (Froehlich et al., 2016), and still in others as competent, but not warm (e.g., Cuddy et al., 2009).

In a computer-based experiment, we studied the influence of auditory and visual cues to ethnicity on the perceived competence and warmth of job candidates. We expected incongruent targets to violate participants' expectations. Therefore, we also included a categorization task and tested whether incongruent targets were unexpected and thus categorized more slowly than congruent targets. We used photographs of male targets and recordings of speech in congruent or incongruent combinations. Male targets were used because stereotypes of nationalities apply more to men than women (Eagly & Kite, 1987) and for Germans the prototypical Turk is a man (e.g., Klingst & Drieschner, 2005).

Hypotheses 1-2 establish the basis for testing our main (evaluation) hypotheses. Based on ELIT (e.g., Giles & Johnson, 1987), we expected that accent would be a strong cue for social categorization. Conceptually replicating previous studies (Pietraszewski & Schwartz, 2014b; Rakić et al., 2011), in the German-Turkish context, targets should be categorized more according to their accent than appearance (Hypothesis 1a). We were especially interested in incongruent targets and we expected that Turkish-looking targets speaking standard German would be generally categorized as German (Hypothesis 1b) and German-looking targets with a Turkish accent would be categorized as non-German (Hypothesis 1c).

Research on expectancy-violations shows that counter-stereotypical people evoke more effortful cognitive processing than stereotypical people (Bettencourt, Dill, Greathouse, & Charlton, 1997; Roese & Sherman, 2007). When people meet a counter-stereotypical person, the discrepancy leads to re-categorization until an appropriate relevant category or subcategory is found (Fiske & Neuberg, 1990; Hutter & Crisp, 2006; Kunda & Thagard, 1996). Thus, we hypothesized that incongruent targets should be more difficult to categorize, which would be reflected by longer categorization reaction times (RTs, Hypothesis 2).

Based on ELIT, we predicted that accents would strongly influence evaluations (Hypothesis 3). Based on extensive research showing that nonstandard speakers are evaluated as less competent than standard speakers (Fuertes et al., 2012) and on the fact that Turks are perceived in Germany as incompetent (Asbrock, 2010; Froehlich et al., 2016), we expected Turkish-accented speakers to be evaluated as less competent than standard German speakers (Hypothesis 4). As findings regarding warmth of nonstandard speakers (Fuertes et al., 2012) as well as perceived warmth of Germans and Turks in Germany are mixed (e.g., Froehlich et al., 2016), we did not formulate specific predictions for this dimension.

Our main hypothesis was that incongruent targets would be evaluated differently than congruent targets. Based on expectancy violation theory (e.g., Burgoon & Burgoon, 2001; Roese & Sherman, 2007), we expected that incongruent targets would be evaluated more extremely than congruent targets in the direction of the valence of the violation. Again, as Turks are consistently perceived in Germany as incompetent and Germans as competent, but perceptions of their warmth differs between studies (Froehlich et al., 2016), we formulated these hypotheses for the competence dimension, but only explored the warmth dimension. Specifically, we hypothesized that when participants see a Turkish-looking person speaking standard German, their negative expectations would be positively violated and they would evaluate the target as very competent (Hypothesis 5a). Conversely, we expected that German-looking targets speaking with a Turkish accent would negatively violate participants' expectations, and therefore be evaluated as incompetent (Hypothesis 5b).

Method

Pre-Tests and Selection of Stimulus Materials

We used portrait photographs of faces from an online database (Minear & Park, 2004) and added several of our own photographs of Turkish men. All men were young, with a neutral facial expression, without glasses, and with a neutral modern haircut. Pictures were converted into black and white.

Short voice samples of young German and Turkish native speakers were recorded. All speakers said the same neutral everyday phrase, "Good morning. Nice to meet you" (in German: "Guten Tag. Es freut mich, dass wir uns kennen lernen"), ensuring that any influence of the content of the statement was excluded and that accented sentences were easy to understand. Speakers were briefly trained, speech rate was held constant, and voice samples were approximately three seconds long.

To avoid the "what is beautiful is good" phenomenon (Dion et al., 1972; Zuckerman & Driver, 1989) and ensure that the stimuli were perceived as typical for their respective groups, all stimuli were pre-tested for attractiveness, pleasantness, ethnic typicality, and accent strength (Ryan, Carranza, & Moffie, 1977).

Pre-test participants ($N = 29$, 13 men, $M_{age} = 22.73$, $SD = 3.42$) were from the same population as participants in the main experiment, but participated only in the pre-test. The pre-test consisted of a block of faces and a block of voices. After each face or voice was presented in random order, participants answered how (1) attractive, (2) pleasant, (3) typically German, and (4) typically Turkish targets appeared or sounded (1 = *not at all* to 7 = *very much*). Voices were also evaluated regarding accent strength (1 = *no accent at all* to 7 = *very strong accent*).

From the pre-tested photographs of faces, we selected four moderately attractive and pleasant German and four Turkish-looking faces; all of them were typical for their respective groups (Table 1).[1] Similarly, from the pre-tested voices, we selected four plus four moderately attractive and pleasant, but typical voices (Table 1).

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[1] One could worry that Turkish-looking faces were descriptively less attractive than German-looking faces. However, in the later evaluations Turkish-looking targets were perceived as most competent when they spoke standard German, but as least competent when they spoke with a Turkish accent. Thus, the descriptive difference in facial attractiveness of targets cannot account for the findings.

In the main experiment, we wanted to cross accents with appearance cues and study

categorization and evaluation of mixed people. To be sure that accent and appearance had the

same categorization baselines on their own, not yet being combined, we ran another pre-test

($N = 18$, 4 men, $M_{age} = 26.06$, $SD = 6.31$). We used the same categorization task that we later

used in the main study, but for the pre-test, we presented faces and voices separately (in two

blocks with randomized block and stimulus order). The results showed that: German faces

were in 100% of cases categorized as German, Turkish faces in 93% as Turkish, German

voices in 90% as German, and Turkish voices in 93% as Turkish (Table 1). A 2 × 2 chi square

test showed no differences between these percentages, $\chi^2 = 0.26$, $p = .61$.

Table 1

Pre-tests Ratings of Photographs of Faces and Recordings of Voices

	Faces				Voices			
	$M(SD)_{German}$	$M(SD)_{Turkish}$	t	p	$M(SD)_{German}$	$M(SD)_{Turkish}$	t	p
Attractiveness	3.18 (1.21)	2.82 (1.04)	1.86	.07	3.44 (1.36)	3.21 (1.38)	0.96	.34
Pleasantness	4.47 (0.89)	4.14 (1.05)	1.27	.21	4.61 (1.14)	4.52 (0.89)	0.39	.70
Typically German	5.33 (1.29)	1.62 (0.70)	15.95	<.001	4.80 (1.64)	1.49 (0.82)	7.63	<.001
Typically Turkish	1.34 (0.47)	3.66 (1.71)	-6.01	<.001	1.61 (0.92)	3.20 (1.52)	-5.70	<.001
Accent strength	-	-	-	-	1.63 (0.84)	4.85 (1.14)	-13.22	<.001
Categorization	100%	93%			90%	93%		

Experimental Design

The experiment had a 2 (appearance: German vs. Turkish) × 2 (accent: standard

German vs. German with a Turkish accent) within-subject design. Thus, there were four target

types: German appearance/German accent (GG, congruent), Turkish appearance/Turkish

accent (TT, congruent), German appearance/Turkish accent (GT, incongruent), and Turkish

appearance/German accent (TG, incongruent). Stimulus composition was counterbalanced:

any given voice (e.g., speaking standard German) was matched with a congruent picture

(German-looking person) in one version of the experiment and with an incongruent picture

(Turkish-looking person) in the second version. For generalization and control reasons, there

were initially also two between-participants factors: context and face-voice sequence. As

evaluations of others could depend on the context (e.g., Abele & Wojciszke, 2007; Vonk,

1999), we tested for the generalizability of our findings in the contexts of a roommate search

and a job interview. The sequence of presentation was counterbalanced between participants:

half of them first saw the face of a target and then immediately heard the voice, and half heard

the voice and then immediately saw the face.

Participants

We stopped collecting data after achieving at least 50 participants per condition

(context and sequence). Participants were 226 undergraduate students of various faculties of a

German university. After excluding the data of 11 participants who were not native German

speakers, the final sample consisted of 215 participants (72 men, $M_{age} = 22.33$, $SD = 3.24$).

They were compensated with either €1 and a chocolate bar or with partial course credit.

Procedure and Measures

After being welcomed by an experimenter unaware of the study's hypotheses,

participants were seated in front of a computer screen and signed informed consent. The

experiment consisted of an evaluation and a categorization block, with the same targets in

each. First, participants were asked to imagine that either they were helping in a recruitment

process at their workplace or that they had a free room for rent in their apartment (later

analyzes showed no differences between these two contexts). All participants first saw two

"filler" congruent German targets for training purposes and to set a common base. Then, the

main targets were presented in an individual random order. Targets' faces and voices were

presented with one second in between. For all targets, participants were asked to look at a face

and listen to a voice and answer on a separate screen how competent (competent, competitive,

independent, α = .93) and warm (likeable, warm, good-natured, α = .91) the person appeared

(1 = *not at all* to 7 = *very much*; Asbrock, 2010; Fiske et al., 2002). After this, participants

saw and heard the same targets (in a different sequence) again and were asked to answer the

question "Is this person German?" with *yes* and *no* as quickly as possible; RTs were collected.

For categorization, we added female targets and questions about the gender of the target as

filler items in order to prevent mental preparation to responding always to the same question,

avoiding falsely short reaction times.[2] Finally, participants answered demographic questions,

provided their email address for debriefing, were given their reward, thanked, and dismissed.

Results

Preliminary Analyses

Two preliminary 2 (appearance: German vs. Turkish) × 2 (accent: German vs.

Turkish) × 2 (context: job interview vs. students' apartment) mixed analyses of variance

(ANOVA) yielded no effects involving context on competence or warmth evaluations (all *F*s

< 1). Similar analyses including presentation sequence (appearance-accent vs. accent-

appearance) yielded no main effects of sequence (*F*s < 1.94, *p*s = .17), and only one out of six

possible interactions on the warmth dimension.[3] Therefore, data were collapsed across these

factors.

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[2] A few supplementary questions (manipulation check: accent strength, cooperativeness,
trustworthiness, suggested salary/room rent) yielded similar results but will not be reported for space
concerns. Motivation to respond without prejudice was assessed at the end and did not moderate the
findings.

[3] An interaction of appearance, accent, and sequence on warmth evaluations, $F(1,197) = 18.93$, $p <$
.001, $\eta_p^2 = .09$, boiled down to the following finding: German-looking Turkish-accented targets were
perceived as warmer when their German appearance was presented first ($M = 4.91$, $SD = 1.58$) than

Social Categorization

Pre-requisites for analyzing the evaluations were that the data replicate the strong

influence of accent on social categorization and that incongruent stimuli are expectancy-

violating and thus people take longer to categorize them. As can be seen in Figure 1, targets

were categorized more according to their accent than appearance, which was tested by means

of a binomial logistic regression for repeated measures using the generalized estimating

equations method (Zeger & Liang, 1986; see Table 2). As the Wald statistic shows, accent

was a significant and strong predictor of categorization. The influence of appearance was

much weaker and there was an interaction effect of appearance and accent. Follow-up

analyses showed that German-looking targets were more often categorized as Germans than

Turkish-looking targets, and this effect was stronger for German-accented speakers,

McNemar's $\chi^2 = 50.21$, $p < .001$, than for Turkish-accented speakers, McNemar's $\chi^2 = 10.62$,

$p = .001$, which could be due to a floor effect for Turkish-accented speakers. The results

confirmed the Hypothesis 1a that accent would play a stronger role for categorization than

appearance. Hypotheses 1b and 1c were also confirmed as Turkish-looking German-accented

targets were mostly (65%) categorized as German and German-looking Turkish-accented

targets as non-German (87%).

when their Turkish accent was first ($M = 4.56$, $SD = 1.63$), $F(1,197) = 4.76$, $p = .03$, $\eta_p^2 = .02$, but

Turkish-looking German-accented targets were evaluated similarly in both presentation sequences, $F <$

1. This suggests that the sequence played only a minor and selective (or even random) role for
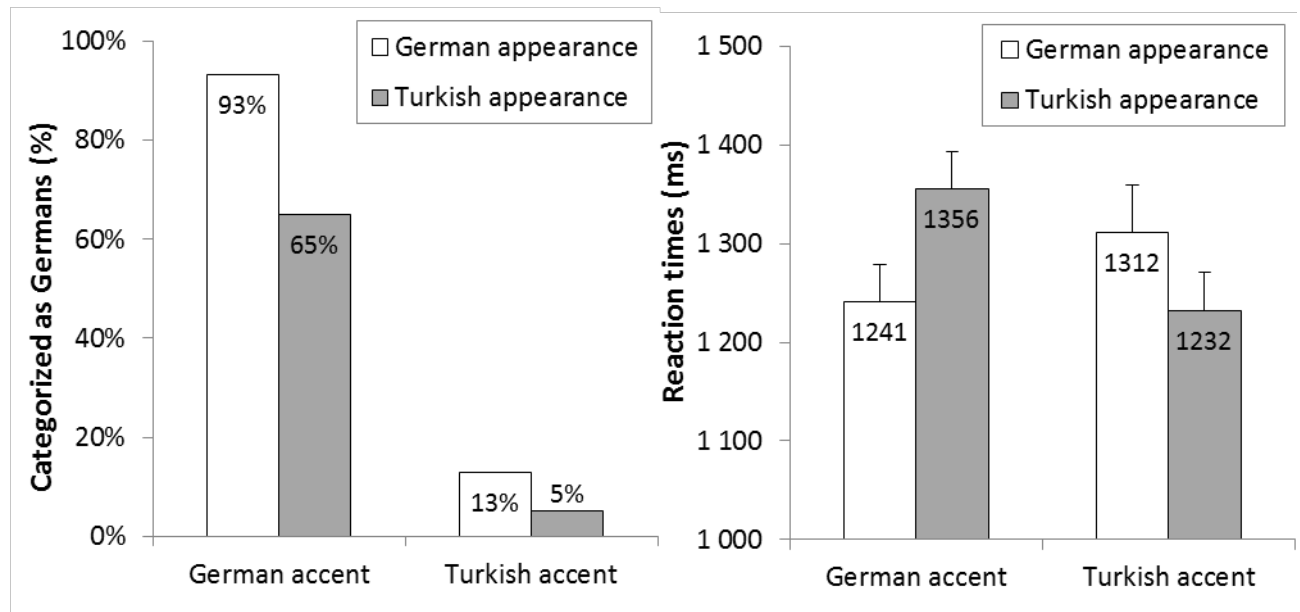
evaluations.

Figure 1. Percent of targets categorized as Germans or non-Germans (left) and mean reaction

times of categorization by target type (right). Error bars represent standard errors of the

mean.

Table 2

Logistic Regression Results for Accent and Appearance Predicting Categorization of Targets

as German or Non-German.

	B	*B(SD)*	95% CI	Wald	*df*	*p*
Intercept	−2.64	0.20	[−3.03, −2.24]	173.66	1	< .001
Accent	4.54	0.24	[4.06, 5.02]	349.35	1	< .001
Appearance	2.00	0.23	[1.55, 2.44]	77.25	1	< .001
Accent*Appearance	−0.98	0.33	[−1.64, −0.33]	8.65	1	.003

Reaction times. We excluded responses that were ±3 standard deviations from the

mean. We computed a 2 (accent: German vs. Turkish) × 2 (congruence of targets: congruent

vs. incongruent) repeated measures ANOVA. The analysis showed that accent did not

influence RTs, $F < 1$, but congruence did, $F(1,197) = 7.61$, $p = .006$, $\eta_p^2 = .04$ (Figure 1).

Incongruent targets were categorized more slowly ($M = 1347.28$ ms, $SD = 539.57$ ms) than

congruent targets ($M = 1250.58$ ms, $SD = 432.98$ ms), corroborating Hypothesis 2 that

incongruent targets are more difficult to categorize (interaction: $F < 1$). Having confirmed that

incongruent stimuli were expectancy-violating, we analyzed the effects of appearance and

accent on evaluations.

Competence Impressions

A 2 (appearance: German vs. Turkish) × 2 (accent: German vs. Turkish) repeated

measures ANOVA showed that targets speaking standard German were evaluated as more

competent ($M = 4.83$, $SD = 0.75$) than Turkish-accented targets ($M = 4.20$, $SD = 0.84$),

$F(1,197) = 85.74$, $p < .001$, $\eta_p^2 = .30$ (Figure 2, Hypothesis 4). Competence evaluations also

depended on appearance, but to a smaller extent, $F(1,197) = 6.21$, $p = .01$, $\eta_p^2 = .03$

(Hypothesis 3). More importantly, evaluations depended on specific combinations of accent

and appearance, as reflected by an interaction effect, $F(1,197) = 20.63$, $p < .001$, $\eta_p^2 = .10$.

Analyses of simple main effects showed that among German-accented targets, Turkish-

looking (i.e., incongruent) targets were perceived as more competent than German-looking

(i.e., congruent) targets, $F(1,197) = 21.30$, $p < .001$, $\eta_p^2 = .10$ (Hypothesis 5a). Turkish-

accented targets were evaluated as similarly competent whether they were German- or

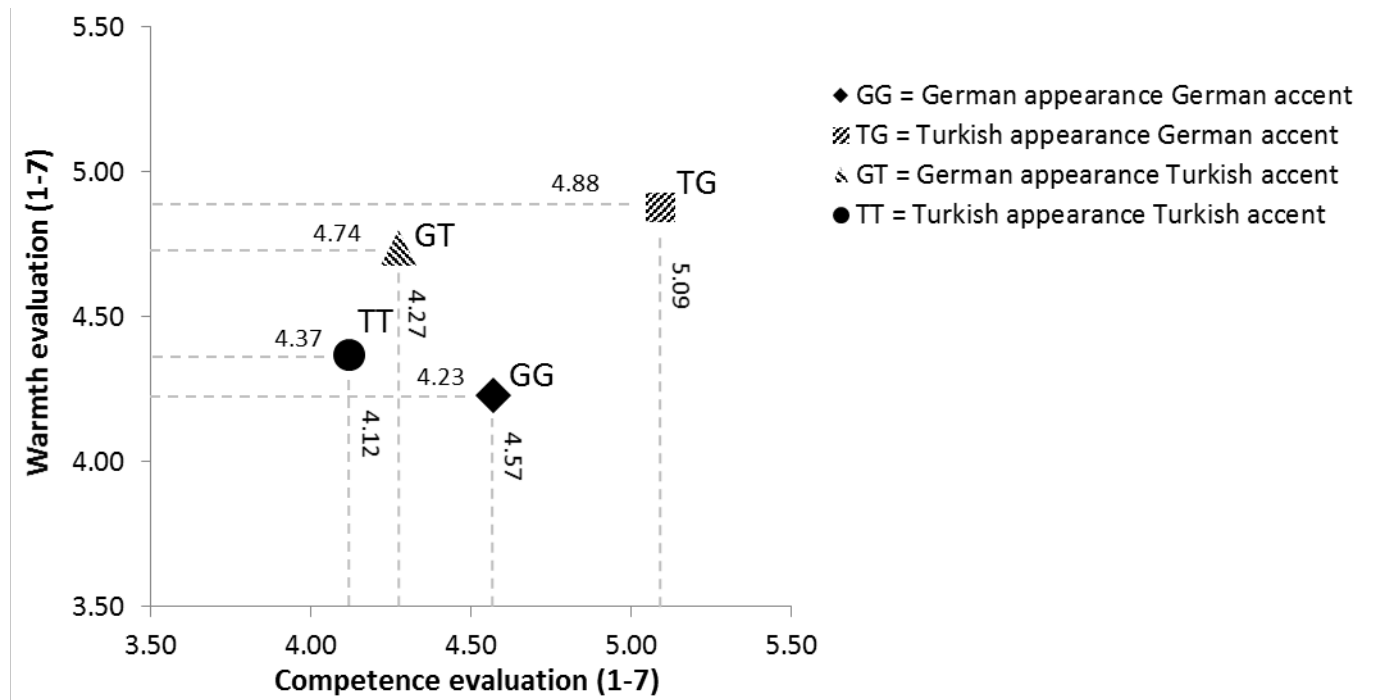Turkish-looking, $F(1,197) = 2.47$, $p = .12$, $\eta_p^2 = .01$ (Hypothesis 5b).

Figure 2. Mean evaluations of competence and warmth by target type.

Warmth Impressions

An ANOVA on the warmth dimension showed that neither accent itself, $F < 1$, nor appearance itself, $F(1,197) = 3.68$, $p = .06$, $\eta_p^2 = .02$, influenced warmth evaluations in a significant way. Only the combination of appearance and accent influenced warmth perceptions, interaction: $F(1,197) = 38.52$, $p < .001$, $\eta_p^2 = .16$. As depicted in Figure 2, incongruent targets were evaluated as warmer than congruent targets. More precisely, among German-accented targets, those who also looked German were perceived as less warm than those who looked Turkish, $F(1,197) = 31.38$, $p < .001$, $\eta_p^2 = .14$; among Turkish-accented targets, those who also looked Turkish were perceived as less warm than those who looked German, $F(1,197) = 13.52$, $p < .001$, $\eta_p^2 = .06$. These results show that incongruent targets were perceived as warmer than both congruent German and congruent Turkish targets.

Additional Analyses

In sum, Turkish-looking German-accented targets were evaluated as both most competent and, together with other incongruent targets, as most warm. German-looking

Turkish-accented targets were along with Turkish-Turkish targets evaluated as least

competent. Overall, competence and warmth evaluations were correlated, $r = .66$, $p < .001$.

As targets were outgroup members for women, but gender-ingroup members for men,

one may wonder whether effects differ between female and male participants. Exploratory

analyses showed that the pattern of results for both genders was similar, but the differences

between targets were larger for men. Especially the advantage of the Turkish-looking

German-accented target over the German-German target was larger for men (both for

competence and warmth). Considering the higher percentage (67%) of women in the sample,

we conclude that the observed effects would be larger in a more balanced sample.

Studies show that it is crucial how a stereotype-incongruent person is categorized

(e.g., Bless, Schwarz, Bodenhausen, & Thiel, 2001). To check potential influence of

categorization on evaluation, we compared evaluations of the Turkish-looking German-

accented targets between participants who categorized them as German (35%) or non-German

(65%). Results showed no significant differences (ts $< |1.7|$, ps $> .10$ for competence, ts $< |1|$

for warmth), indicating that categorization did not affect evaluations.

Discussion

When people encounter others, they often see and hear them. Their appearance and

speech, as well as the combination of those two, can influence how people evaluate each

other. Although such cross-modal effects are frequent in real life, they are relatively

underrepresented in psychology (see also Freeman & Ambady, 2011; Zuckerman, Miyake, &

Hodgins, 1991). The present research provides an original contribution to understanding the

influence of visual and auditory cues on impression information. Targets were seen in

photographs and heard in short voice recordings. They appeared Turkish or German and

spoke standard German or German with a Turkish accent. Participants evaluated targets'

competence and warmth, and categorized them as Germans or non-Germans.

In a pre-test, appearance and accent presented separately were similarly used to infer ethnicity. When pitted against each other, accent was more diagnostic for social categorization and evaluation. Such a strong role of accent is in line with ethnolinguistic identity theory (Giles & Johnson, 1987) and results of research conducted in the US (Kinzler et al., 2009; Pietraszewski & Schwartz, 2014b), Germany (Rakić et al., 2011), and Sweden (Rödin & Özcan, 2011). Nevertheless, it is an open question whether this would replicate everywhere or would depend on the diagnosticity of accents and appearance in a specific cultural context (see Pietraszewski & Schwartz, 2014a). Future cross-cultural research or experimental manipulations of diagnosticity could shed more light on this issue.

Our results also showed that standard German speakers were overall evaluated as more competent than Turkish-accented speakers. However, the evaluation of targets depended on the combination of their appearance and accent. As expectancy violations theory predicted (Burgoon & Burgoon, 2001), effects of appearance-accent mismatch went beyond "the sum of the elements" and Turkish-looking German-accented targets were perceived as most competent. German-looking Turkish-accented targets were, together with congruent Turkish targets, evaluated as the least competent. Thus, our expectancy violations hypotheses were confirmed.

As earlier findings about the perceived warmth of Turks in Germany (e.g., Froehlich et al., 2016) and of foreign-accented speakers (Fuertes et al., 2012) were inconclusive, we did not formulate hypotheses for warmth. Nonetheless, results on this dimension were very interesting: the two types of incongruent targets were evaluated as warmer than the two types of congruent targets. Congruent Turkish targets were perceived as relatively cold (see also Asbrock, 2010; Eckes, 2002), but targets who had only one Turkish feature were evaluated as warmer. Possibly, perceived threat changes evaluations (Cottrell & Neuberg, 2005): A young Turkish-looking Turkish-accented man might be too threatening to be perceived as nice and

friendly, but when he possesses only one Turkish trait, stereotypes about warm Turks might

be activated and expressed.

An alternative explanation pertains both to the warmth and the competence findings:

According to expectancy violations theory or to the 'black sheep' effect (Biernat, Vescio, &

Billings, 1999), German-looking Turkish-accented targets should be evaluated as least

competent, but they were evaluated as similarly (in)competent as the congruent Turkish

targets. This result suggests that other cognitive processes could also contribute to the

observed effects. It could be that (appearance or accent) cues change their meaning in the

context of other cues (e.g., Anderson, 1971; Kunda & Thagard, 1996). In a study where

participants indicated how they interpreted surprising combinations of appearance and

accents, German-looking faces sometimes changed the perception of Turkish accents: Some

participants re-interpreted the targets as Northern or Eastern Europeans (Hansen, 2013). This

shows how surprising combinations of accent and appearance can strongly change people's

perceptions (Kunda & Thagard, 1996; Remedios, Chasteen, Rule, & Plaks, 2011).

Turkish-looking but German-accented targets were evaluated as both warmest and

most competent. The other incongruent targets, German-looking but speaking with a Turkish

accent, were perceived as low in competence, but high in warmth. While the latter result

could be interpreted as compensatory stereotyping (Yzerbyt, Provost, & Corneille, 2005), the

earlier one could not. More research is needed to better understand the obtained findings on

the warmth dimension and generally, the inconsistent findings for warmth evaluations in

research on accents (Fuertes et al., 2012).

The positive evaluation of Turkish-looking targets who spoke standard German was in

line with expectancy violations: Participants were positively surprised by these targets (which

was reflected in longer categorization latencies) and evaluated them extremely well (Burgoon,

2009; Roese & Sherman, 2007). Previous research has shown, for example, that Blacks with

strong academic qualifications were evaluated as more competent than Whites with similar

credentials (Jackson et al., 1993). Along with other results interpreted as expectancy

violations, these results can be also seen as an effect of lower linguistic standards that

Germans might have for foreign-looking people. People may be evaluated in comparison to

the average of their group (Biernat & Manis, 1994). Stereotype-incongruent targets can be

contrasted from the group norm and described in such terms, for example: "For a Turk he

speaks German very well" (Collins, Biernat, & Eidelman, 2009). Similar contrastive

judgment patterns can also occur when expectations are violated. The present experiment

offers no direct evidence of expectancy violation. However, in cases in which the same result

can be based on different cognitive processes, measuring its neural correlates can be a useful

tool for constraining explanations of such behavioral data (Bartholow, 2010). Research related

to the present study, combining accent and appearance ethnicity cues, has shown that

incongruent targets evoke brain reactions that can be interpreted as expectancy violations

(Hansen et al., in press).

The results of studies like the present one may depend on the cultural context where

they are conducted, for example, in a traditionally monocultural or multicultural country. The

results could also depend on the characteristics and beliefs about a specific ethnic group. We

chose Turks as targets as they are the biggest and the most prototypical immigrant group in

Germany (Federal Ministry of the Interior, 2007). We are not aware of any data directly

showing relationships between Turkish appearance, accent strength, and other variables.

However, existing data show that about 7% of the German population speak German less than

very well (Haug, 2008) and children of Turkish origin often have problems at school because

of their low German language competencies (e.g., Becker, 2010). Thus, indirectly it can be

inferred that Turkish appearance and Turkish accent are significantly related with each other

in Germany, and also that Turkish accent could be related to low perceived acculturation. We

cannot generalize our findings, for example, to Asians, who are often perceived to be

particularly competent and hardworking, and people could hold different assimilation expectations regarding them (Asbrock, 2010; Fiske et al., 2002).

Similarly, we had few and pre-tested stimuli per condition, which made the experiment well-controlled and its interpretations cleaner. The chosen stimuli were judged as typical for their groups, but we cannot know how representative they were of the Turkish- and German-origin populations in Germany. Nevertheless, we think that even if a specific cultural context or stimulus choice may have influenced the results, the mechanism is still interesting: If people expect from a Turkish-/Moroccan-/Indian- or German-/French-/American-looking person to speak with a specific accent, but the person speaks with a different one, this can be surprising, new qualities can emerge from such atypical combinations of features, and they can strongly influence evaluations.

Our results suggest that Turks in Germany would benefit from learning German at an early age, as foreign-looking people who speak standard German evoke an especially positive impression. We think that these are reasonable conclusions, but we would also like to draw attention to the other side of the coin. A widespread approach to communication problems between native and nonnative speakers is to reduce the accent of the nonnative speaker (e.g., Carlson & McHenry, 2006; Shah, 2012). This focuses attention only on one person's responsibility, and eradicating accent in speech is very difficult or even impossible to achieve (Gluszek & Dovidio, 2010). We believe that to diminish language-based discrimination, it is important to address the role of native speakers' consciousness, for example by using perspective-taking interventions (Hansen et al., 2014; Subtirelu & Lindemann, 2014).

Conclusions

An important implication of the present research is that researchers should pay more attention to the interactions of appearance, accent, and other cues in impression formation. Reactions to people with features suggesting different ethnicities have been little studied, but with increasing global mobility they are timely and important. With our research, we hope to

pave the way for future research on the social perception of people whose social

categorization is ambiguous.

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