

Running Head: PERCEPTIONS OF VIDEO RESUMES

**Fairness perceptions of video resumes among ethnically diverse applicants**

Annemarie M.F. Hiemstra

*Erasmus University Rotterdam and GITP*

Eva Deros

*Ghent University*

Alec W. Serlie

*GITP and Erasmus University Rotterdam*

Marise Ph. Born

*Erasmus University Rotterdam*

## **Fairness perceptions of video resumes among ethnically diverse applicants**

### **Abstract**

This study investigated ethnic majority and minority applicants' fairness perceptions ( $n = 445$ ) of video resumes, compared to paper resumes. Additionally, the moderating effect of minorities' ethnic identity and language proficiency on fairness perceptions of video/paper resumes was studied. Despite discriminatory concerns, ethnic minority applicants perceived the fairness of video resumes equally or more positively when compared to ethnic majority applicants, and when compared to paper resumes. Minorities' ethnic identity was positively related to fairness perceptions of resumes. Furthermore, language proficiency was a significant moderator: Higher proficiency was related to higher fairness perceptions of paper resumes. The implication is suggested that ethnic minority applicants may prefer a more personalized way of applying, (video resume), instead of less personalized ways.

**Running head: PERCEPTIONS OF VIDEO RESUMES**

The increased use of technology and internet in screening procedures (Sylva & Mol, 2009) has resulted in the emergence of so-called ‘video resumes’. Video resumes are video-taped messages in which applicants present themselves to potential employers (Doyle, 2010). The popularity of video resumes is reflected in an increasing use of and media attention to video-based applications, both in the United States and Europe (Gissel, Thompson, Pond, & Meade, 2011; Wichink Kruit, 2010). Instead of merely turning paper-and-pencil resumes into videotaped versions, multimedia allows applicants to actually show their knowledge, skills, abilities and other characteristics (e.g., interpersonal competencies) that may be difficult to capture with traditional paper resumes. Video resumes might offer applicants the opportunity to show their potential more than paper resumes do, due to additional visual and auditory information. This may be particularly so for those who want to demonstrate their skills (e.g., creativity). Other factors that might contribute to the applicants’ adoption of video resumes are increased applicant convenience to use multimedia when applying and (possibly) their positive perceptions of multimedia applications. With the study presented here, we will be among the first to investigate applicants’ perceptions of video resumes, thereby adding to the literature on the use of multimedia in recruitment and assessment procedures.

This study particularly investigates whether video resumes are perceived as fair by applicants. Applicant perceptions have been identified as an important theme in the adoption of new technology in selection (Lievens & Harris, 2003). Yet, relatively little research has been done on between-group preference differences for using internet-based application procedures (Garcia-Izquierdo, Aguinis, Ramos-Villagrasa, 2010), among which the video resume can be categorized. Given demographic evolutions, such as increasing ethnic diversity as a result of globalization and immigration (De Beijl, 2000), it is important to know more about the way

applicants, and ethnic minority applicants in particular, perceive the fairness of video-resumes. Aside from demographic evolutions, knowledge on the perceptions of ethnic minority applicants is particularly important because legal concerns have been raised with the use of video resumes (Lefkow, 2007). Information on ethnicity, sex, age and disability are revealed at an early stage of the selection process, which could lead to accusations of discrimination and lawsuits. There is empirical evidence that e-recruitment practices that are perceived as unfair and intrusive lead to negative applicant reactions, possible legal action and a tendency to 'self-select out' (Anderson, 2011). It is not known, however, how the fairness of video resumes is actually perceived by ethnically diverse applicants.

The study presented here therefore is, as far as known, the first one that focuses on the way applicants, and ethnic minority applicants in particular, perceive the fairness of video resumes compared to paper resumes. Because fairness may not target every (minority) applicant in the same way, we will additionally investigate potential moderating effects of applicants' ethnic background, ethnic identification, and language proficiency. Before turning to this issue, we will take a closer look at characteristics of video resumes.

### **Video Resumes**

The format of a video resume can vary from a video-taped message to a multimedia message, including animations and text. An example of the use of video resumes is the recruitment program that was launched in Australia, inviting applicants to send a 60 seconds video message to demonstrate their creativity and skills for a marketing job. No less than 34.000 applicants responded (Queensland Tourist Board Australia, 2009). Additionally, a growing number of companies are offering services that range from online hosting of video resumes in search databases for recruiters, to the full production of resumes for applicants. A search

conducted by Gissel et al. (2011) for the keywords “video résumés” on popular Web sites yielded 10,900 hits on youtube.com and 49,300,000 on google.com. Since then, it appears that the topic has only gained popularity in the popular press and media, which contrasts with the paucity of published empirical research in the Web of Science (Deros, Taveirne & Hiemstra, 2012).

The initiative to use video resumes in the procedure can come from the applicant (Gissel et al., 2011) or the employer. When the hiring organization is setting the rules for video resume applications, the format requirements can be more or less structured. For example, employers may ask applicants to present themselves by answering standardized questions (Clooks, 2011). This afore mentioned format, which is highly structured, may be more closely related to the interview (i.e., a ‘web based video interview’) instead of the resume. Although the initiative to apply with a video resume can vary (taken by the applicant or demanded by the employer), as well as the format of a video resume (unstructured vs. highly structured; videotaped vs. multimedia), the introduction of auditory and visual information of the applicant in the early screening phase is the common denominator, which differentiates video resumes from paper resumes. This growing use of video resumes is not (yet) reflected, however, in empirical research on e-recruitment.

### **Applicant Perceptions of Video Resumes**

Besides the psychometric side of selection procedures, researchers have also studied the social-motivational side of personnel selection (e.g., Anderson, Born, & Cunningham-Snell, 2001). This is reflected in the large body of research on applicant perceptions of commonly used selection instruments (e.g., Anderson, Salgado, & Hulsheger, 2010), such as written resumes. Applicant perceptions have been identified as an important theme in the adoption of new

technology in recruitment and selection too (Ryan & Ployhart, 2000). However, the literature on applicants' perceptions of innovative hiring tools naturally is relatively scarce when compared to the more traditional testing tools (see for some notable exceptions: Chan & Schmitt, 1997; Oostrom, Born, Serlie, & Van der Molen, 2010; Sylva & Mol, 2009; Wiechmann & Ryan, 2003). However, and to the best of our knowledge, applicant reactions towards video resumes have not been investigated yet.

Hausknecht, Day and Thomas (2004) mentioned five reasons why it is important for organizations to study applicant perceptions, among which perceived organizational attractiveness and propensity to initiate legal action. These reasons are reflected in the majority of research on applicant justice perceptions as based on Gilliland's model (1993). Gilliland (1993) states that the overall perceived fairness of the selection process is influenced by the applicants' procedural justice perceptions (i.e., whether applicants perceive the selection procedure as fair, in terms of job relatedness and opportunity to perform) and their perceptions of distributive justice rules (i.e., whether applicants receive the hiring decisions they feel they deserve, such as equity and equality). The present paper focuses on overall fairness and procedural justice perceptions of video versus paper resumes of applicants who went through an application training (see method section). Creating a video resume and subsequently applying with it is part of the initial phase of a selection procedure. Typically, during this phase, any interaction of the applicant with the hiring organization (related to distributive justice) is rather low. The present paper, therefore, focuses on perceived procedural justice.

Research by Chan and Schmitt (1997) showed that new selection techniques such as the video-based SJT are regarded more positively by applicants compared to more traditional paper-and-pencil versions in terms of overall fairness (i.e., job relevance). Overall, simulations seem to

elicit more favorable examinee reactions than paper-and-pencil measures. Similarly, Richman-Hirsch, Olson-Buchanan and Drasgow (2000) showed that applicants perceive multi-media tests as more fair compared to traditional paper-and-pencil or computerized tests. It appears, therefore, that innovative types of selection tools do not necessarily lead to negative applicant perceptions (Bauer, Truxillo, Paronto, Weekley, & Campion, 2004). They can even lead to more favorable perceptions compared to the traditional screening methods (Richman-Hirsch et al., 2000). Given applicants' positive reactions towards multimedia techniques and given that video resumes are a multimedia application of paper resumes, we expected that:

***Hypothesis 1a.***        *Applicants will perceive video resumes as more fair than paper resumes.*

Generally, resumes are perceived favorably by applicants, although work sample tests and interviews are perceived even more favorably (Anderson et al., 2010). One of the main reasons for this is the perceived job relatedness of these tools. Job relatedness is defined as the extent to which a test appears to measure content relevant to the job situation and appears to be predictively valid (Gilliland, 1993). Future job-relevant behavior may be showed more directly in video resumes compared to paper resumes, much like a work sample test and interview, and therefore video resumes may be perceived as more job-related than paper resumes. Furthermore, because video resumes are multimedia applications of paper resumes and because multimedia applications are often perceived to be higher on job relevance, we expect video resumes to be perceived as higher on job relatedness (face validity and predictive validity) than paper resumes:

***Hypotheses 1b/1c.***    *Applicants will perceive the face validity (H1b) and the predictive validity (H1c) of video resumes as higher when compared to paper resumes.*

Social influence theory (Levy, Collins, & Nail, 1998) states that every interpersonal relation is directed towards some sort of social influence. During a job interview, for example,

applicants may try to elicit favorable impressions from the interviewer. Based on the social influence theory, it can be expected that the applicant will use self-presentation tactics in order to achieve this (Barrick, Shaffer, & DeGrassi, 2009). Although video resumes do not facilitate direct interaction, it can be hypothesized that the format allows for more self-presentation compared to the paper resume (e.g., professional appearance), and thus allows for more opportunities to perform and to show one's competencies to recruiters (Waung, Beatty, Hymes, & McAuslan, 2012). We therefore hypothesized that:

***Hypothesis 1d.***        *Applicants will perceive the opportunity to perform in video resumes as higher when compared to paper resumes.*

### **Ethnicity Effects in Applicant Perceptions of Video Resumes**

In Western countries, the odds for rejection are significantly higher for ethnic minority applicants compared to ethnic majorities, even when all job qualifications are equal (Deros, Nguyen, & Ryan, 2009). Research in the Netherlands, where the present study was conducted, has shown that differential job access is largest among non-Western ethnic minorities compared to native Dutch ethnic majorities, and particularly so for Turkish and Moroccan immigrants (Dagevos, Gijsberts & Van Praag, 2003). Secondly, Turkish and Moroccan applicants, compared to other large non-Western ethnic minority groups, report being the most discriminated against when looking for a job (Andriessen, Dagevos, Nievers, & Boog, 2007). Therefore, due to this relatively weak labor market position, ethnic minority applicant perceptions as hypothesized, may hold particularly for this group of applicants.

Because lower labor market outcomes for ethnic minorities (particularly so for Turkish and Moroccans in the Netherlands) may partly be explained by actual job discrimination during recruitment and selection (Deros, Ryan, & Nguyen, 2012) and because ethnic minorities may



perceive selection procedures as being less fair compared to their majority counterparts (e.g., Chan & Schmitt, 1997) we expected that:

***Hypothesis 2.*** *Ethnic minority applicants (Turkish/Moroccans in particular) will perceive both video resumes and paper resumes as less fair than ethnic majority applicants, in terms of overall fairness (H2a), perceived predictive validity (H2b), face validity (H2c), and opportunity to perform (H2d).*

Ethnic minorities, however, might be better off with video resumes compared to paper resumes. Specifically, video resumes may allow applicants to illustrate their individual job-related competencies and past experiences in a more direct way than through paper resumes. Research has consistently shown that paper resumes are highly vulnerable to social categorization and ethnic discrimination (Bertrand & Mullainathan, 2002). Therefore, ethnic minorities may welcome alternatives for paper-based screening. Because applicants are able to provide a more personalized and competence-based picture of themselves (individuation) in video resumes, ethnic minority applicants may actually perceive video resumes as more fair than paper resumes despite the fact that more ethnicity related cues can be revealed at the earliest screening phase. Following this prediction (e.g., Quinn, Mason, & Macrae, 2010) we expected that:

***Hypothesis 3.*** *Ethnic minority applicants (Turkish/Moroccans in particular) will perceive video resumes as more fair when compared to paper resumes, in terms of their overall fairness (H3a), perceived predictive validity (H3b), face validity (H3c), and opportunity to perform (H3d).*

**Ethnic identity.** In a research context, ethnicity is typically based on socio-demographic categories such as country of origin and birth country of a person's parents (Central Bureau of Statistics [CBS], 2010). While useful, this approach does not take into account that ethnicity can

mean different things to individuals who are categorized into the same group (i.e., a psychological approach). Ethnic identity is recognized as a multi-faceted construct that allows for a greater degree of interpretation of behavioral patterns of individuals within a cultural group (Phinney & Ong, 2007). As such, ethnic identity may be a more informative construct when studying ethnicity related antecedents of applicant perceptions and it was therefore included in this research.

Ethnic identity can be described as an enduring, essential aspect of a persons' social identity that stems from his/her knowledge of membership of an ethnic group and associated feelings with that membership (Phinney, 1996). Therefore, ethnic identity can be considered a part of one's social identity (Tajfel & Turner, 1986). A strong ethnic identity is related to high self-esteem and other self-image factors (Smith & Silva, 2011), which may influence a person's behavior and perceptions. Phinney (1992) suggests that individuals who are further along in their identity development process view ethnic group membership as more salient and have a clearer understanding of how ethnic group membership contributes to their sense of self. As a result, ethnic minorities who identify highly with their ethnic group may be more comfortable expressing their ethnic heritage than hiding it (Linnehan, Chrobot-Mason, & Konrad, 2006). In applicant perception research, one's ethnic minority identity is considered to be related to higher perceived discrimination, which may result in a higher propensity to case initiation (Anderson, 2011; Operario & Fiske, 2001). At the same time, research has shown that ethnic identity strength diminishes the extent to which minorities are impacted by discrimination, acting as a protective resilience factor (Smith & Silva, 2011).

Ethnic identity becomes particularly salient when perceptions of unfair bias against ethnicity occur (Herriot, 2004). In the first screening phase, the interaction with the hiring

organization is generally low and ethnic minorities' fairness perceptions of applying with a video resume (procedural justice) may be more related to self-esteem factors (higher comfort in expressing one's cultural heritage), than to discrimination perceived in advance (higher sensitivity to prejudiced treatment; distributive justice). Considering the possible effect of ethnic identity on comfort in expressing one's ethnicity in multimedia applications, we expected that:

***Hypothesis 4.*** *Minorities' ethnic identity strength moderates the fairness perceptions of video versus paper resumes in such a way that videos will be perceived as more fair compared to paper resumes but particularly so when ethnic minorities identify more strongly with their ethnic in-group.*

**Language proficiency.** Language skills have been found to be related to the ability to meet daily needs in society for ethnic minorities (Lindert, Korzilius, Van de Vijver, Kroon, & Arends-Toth, 2008), such as job search self-efficacy and labor market outcomes in the context of employment (van Tubergen, 2010). As such, host country language skills are considered to be important socio cultural outcomes of acculturation. Acculturation refers to the process of changes and continuities in cultural adaptation of ethnic minorities (Berry, 1997).

In traditional application forms written language skills are important, for instance when creating a paper resume and a motivational letter. There is some evidence that learning to read and write in a second language requires more formal instruction than learning to speak the language (e.g., due to literacy requirements; van Tubergen, 2010). This would imply that immigrant applicants would experience more difficulties in creating a paper resume (possibly related to lower fairness perceptions) when compared to a video resume, because video resumes only claim upon spoken language skills. However, this would particularly hold for applicants with limited pre-immigration education (lower educated 'first generation immigrants'; van

Tubergen, 2010). Many young ethnic minority applicants, however, generally went through the same formal schooling system as mainstreamers ('second generation immigrants'; De Beijl, 2000) and as such one may expect that they will have sufficient reading and writing skills in the host country language.

When applying with a video resume, possible ethnic minority applicants' accented speech is introduced at the earliest screening phase. Research has shown that accented speech, in combination with the applicants' name, negatively affects the recruiters' favorable judgments in job interviews (Hosoda, & Stone-Romero, 2010). Therefore, it may be that ethnic minorities consider applying with a paper resume as more fair compared to a video resume because of the additional ethnicity related cues that are introduced at the earliest screening phase.

Given seemingly contradictory arguments as mentioned above and because it is still unknown whether ethnic minorities' proficiency of the host country language (either written or spoken) influences the fairness perceptions in paper versus video resumes, we formulated the following research question:

***Research Question.*** *Will ethnic minority applicants' perceived proficiency of their host country language moderate their procedural justice perceptions of video vis-a-vis paper resumes?*

In sum, video resumes are a new recruitment tool and not much is known on applicant perceptions and ethnic minority applicants' perceptions in particular. Therefore, this paper studies (a) applicant perceptions of video resumes compared to paper resumes, (b) ethnic group differences in applicant perceptions towards resumes, and (c) moderating factors of ethnic minorities' applicant perceptions, namely ethnic identity and language proficiency.

## **Method**

### **Participants**

Participants were applicants ( $n = 445$ ). All were unemployed job seekers who followed an application training, provided by the local government of a large Dutch city. The mean age was 32 ( $SD = 9.38$ ) and 58 percent was male. Almost half of the participants (47%) had secondary vocational training, 34% was educated at a lower level, 19% had a bachelor or master degree. In the Netherlands, a distinction is generally made between the four largest ethnic minority groups: Turkish, Moroccan, Surinamese and Dutch Antilleans. The sample consisted of the following ethnicities: 20% Dutch majority, 8,5% Turkish, 8,5% Moroccan, 36% Surinamese/Antillean, 22% other non-Westerners (e.g., Asians), and 5% other Western applicants (e.g., from other European countries). Most of the participants (74%) had been unemployed for less than 6 months ( $n = 235$ ) or less than 1 year ( $n = 91$ ). Analysis showed no significant differences in duration of unemployment between ethnic subgroups,  $F(2, 434) = .60$ ,  $p = .55$ .

### **Procedure and Design.**

Participants were enrolled in a 2-day application training program subsidized by the Dutch government (6-12 applicants per training), to improve applicants' job-seeking skills through the creation of a personal video resume. All unemployed job seekers in the region were entitled to enroll. On Day 1 applicants were trained to identify and present their knowledge, skills, abilities and other characteristics to potential employers. This resulted in a personal script that was used as input for Day 2. On Day 1, participants were informed by the researchers about the study goals and after the informed consents were collected, participants filled out Part 1 of a questionnaire (see below) including background variables (e.g., sex, age) and some of the study measures (ethnic identity, language skills). The next day, on Day 2, participants went to a professional studio individually to tape their video resume. During the taping they were assisted

by a director and a personal coach. The studio edited each recording, resulting in a personal 40-60 second video resume for each participant. Shortly after the participants created their video resume, at the end of Day 2, they filled out scale items on fairness and procedural justice for both video and paper resumes

The design of our field study was a 2 (Resume type: video vs. paper) by 2 (Ethnic group: ethnic minority vs. ethnic majority) mixed factorial design. Resume type was a within-subjects factor whereas Ethnic group was the between subjects factor. Applicants ethnic identity strength and language proficiency were introduced as moderators for the testing of Hypothesis 4 and the Research Question, which applied to ethnic minority applicants only (within subjects). Please note that when we tested differential effects of (Dutch) ethnic majority applicants versus Turkish/Moroccan ethnic minority applicants, we crossed resume type with ethnic minority group, consisting of three conditions instead of two (i.e., ‘Dutch ethnic majority’, ‘Turkish/Moroccan ethnic minorities’ and ‘Other ethnic minorities’).

### **Measures**

Unless otherwise mentioned, all Likert-type items were rated on a five-point scale (1 = *not at all applicable*; 5 = *very much applicable*).

*Fairness perceptions.* Overall fairness was measured with an adapted scale from Kluger and Rothstein (1993; 4 items). An example item is: “Most people would say the [video resume/ paper resume] is fair” with an alpha coefficient of .77 for paper and .82 for video resumes. Example items for procedural justice perceptions are: “It would be obvious to anyone that the [video resume/paper resume] is related to a job” (Face validity; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993; 4 items), “I am confident that the [video resume/ paper resume] can predict how well an applicant will perform on the job” (Perceived predictive validity, Smither et

al., 1993; 5 items), and “The [video resume/ paper resume] gives applicants the opportunity to show what they can really do” (Opportunity to perform, Bauer et al., 2001; 4 items). Alpha coefficients of the procedural justice scales ranged between .71 and .87 (see Table 1).

*Ethnic identity strength.* The ethnic identity strength of the applicants was measured with an adapted version of the affirmation, belonging, and commitment subscale of the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992). First, participants were asked to indicate to which ethnic group they felt they belonged to. Subsequently three scale-items were presented on the perceived importance of the indicated group membership for the individual. An example item is “My (Dutch or other) identity is an important aspect of who I am”. The alpha was .83.

*Language proficiency.* This measure on perceived language proficiency, asked about experienced difficulties in writing and speaking the Dutch language (adapted from Dinsbach & Feij, 2003; 6 items). Example items are: “Writing in the Dutch language is difficult for me”, “Speaking the Dutch language is difficult for me” and “I think it is difficult to make a video resume because of the Dutch language”. All items were reverse coded to reflect language proficiency. Alpha was .89.

*Demographics.* Finally, we also measured the applicants’ age, sex, ethnicity, educational level, internet use and duration of unemployment.

## Results

### Descriptives and preliminary analysis

Table 1 represents descriptives, correlations, and internal reliabilities of study variables. Education correlated significantly with several applicant characteristics (age, time unemployed and internet use; Table 1) as well as with overall fairness perceptions of video resumes ( $r = -.17$ ,  $p < .05$ ), face validity ( $r = .27$ ,  $p < .01$ ) and opportunity to perform ( $r = .18$ ,  $p < .05$ ) in paper

resumes. Education was therefore controlled for in the final analysis and it was a significant covariate in each subtest.

### **Hypothesis testing**

A series of Repeated Measures ANCOVAs supported Hypothesis 1a that the applicants perceived the overall fairness of the video resume as higher than those of paper resumes (H1a:  $F(1, 429) = 23.58, p < .01, \eta^2 = .05$ ). The opposite effect was found for perceived predictive validity, H1b:  $F(1, 424) = 17.79, p < .01, \eta^2 = .04$ , H1c: face validity,  $F(1, 427) = 13.06, p < .01, \eta^2 = .03$ , and opportunity to perform H1d:  $F(1, 424) = 10.87, p < .01, \eta^2 = .03$ . Hypothesis 1 thus was only supported for overall test fairness and not for face validity, perceived predictive validity or opportunity to perform. These main effects, however, could be further qualified by its interaction with ethnicity.

Hypothesis 2 stated that ethnic minority applicants (Turkish/Moroccans in particular) would perceive both video and paper resumes as less fair than ethnic majority applicants. No ethnicity effects were found on perceived overall fairness of paper and video resumes (H2a). Significant ethnicity effects were found, however, for perceived predictive validity of the video resume (H2b). Yet, contrary to what was predicted, ethnic minority applicants, and Turkish/Moroccan applicants in particular, perceived the predictive validity of the video and paper resume as higher when compared to ethnic majority applicants ( $F(2, 413) = 4.58, p = .01, \eta^2 = .02$ ; see Table 2 for mean scores). Another significant ethnicity effect was found for the face validity of paper resumes (H2c;  $F(2, 413) = 6.33, p = .00, \eta^2 = .03$ ). Turkish/Moroccan applicants in particular rated the face validity of paper resumes as lower compared to Dutch applicants. As regards opportunity to perform (H2d), a similar direction was found for paper and video resumes ( $F(2, 413) = 2.59, p = .08, \eta^2 = .01$ ; see Table 2 for mean scores). Thus, the hypothesis that ethnic



minority applicants would have more negative perceptions compared to majority applicants was not supported. Minority applicants only perceived the face validity of paper resumes more negatively than ethnic majority applicants.

As regards Hypothesis 3, RM ANCOVA's showed mixed results, with a medium sized ( $\eta^2 = .12$ ) significant effect in the hypothesized direction for face validity in the Turkish/Moroccan subgroup (H3c; Table 2). The effect sizes of the other significant results were small with the exception of medium effect sizes for test fairness in the 'other ethnic minority group' ( $\eta^2 = .06$ ) and face validity for the Turkish/Moroccan applicants. Interestingly, a significant interaction effect between ethnicity and face validity was found (Figure 1).

Hypothesis 4 stated that minorities' ethnic identity strength would moderate the fairness perceptions of video versus paper resumes. Significant correlations were found for minorities' identity and fairness perceptions ( $r_{\text{video}} = .11, p < .05$ ;  $r_{\text{paper}} = .11, p < .05$ ), the perceived predictive validity of paper resumes ( $r = .19, p < .01$ ), face validity of video resumes ( $r = .19, p < .01$ ) and opportunity to perform of paper and video resumes ( $r_{\text{paper}} = .12, p < .05$ ;  $r_{\text{video}} = .15, p < .01$ ; Table 1). Ethnic identity, however, did not significantly moderate the ethnic minorities' perceptions of paper vs. video resumes (e.g.,  $F_{\text{perceived predictive validity}}(1, 333) = 1.10, p = .30$ ;  $F_{\text{face validity}}(1, 336) = .01, p = .91$ ). Thus Hypothesis 4 was not supported.

However, because ethnic identity correlated positively with perceptions of both paper and video resumes, post hoc analyses were performed, in which the video and paper resume perceptions of low, medium and high identified ethnic minorities were compared (cf., Operario & Fiske, 2001). The ethnic identity categories were coded as low (25% lowest MEIM scores), high (25% highest MEIM scores), and medium (50% middle MEIM scores). A main effect was found ( $F(16, 648) = 1.83, p = .02, \eta^2 = .04$ ). Further analysis showed that this was caused by a

significant difference in the perceived face validity of video resumes ( $F(2, 330) = 4.53, p = .01, \eta^2 = .03$ ), with higher identified ethnic minorities having higher face validity perceptions of video resumes ( $M_{\text{low}} = 3.53, SD = .67; M_{\text{medium}} = 3.58, SD = .57; M_{\text{high}} = 3.80, SD = .68$ ).

Similar results were found for paper resumes regarding overall test fairness ( $F(2, 330) = 3.29, p = .04, \eta^2 = .02$ ) and perceived predictive validity ( $F(2, 330) = 5.00, p = .01, \eta^2 = .03$ ). Thus, post hoc analyses showed that ethnic minorities who identified more strongly with their ethnic group had more positive applicant perceptions of both video and paper resumes,  $F(16, 648) = 1.83, p = .02, \eta^2 = .04$ .

As regards our research question on language proficiency as a possible moderator of ethnic minority applicant perceptions: Ethnic minorities' perceived host country language proficiency correlated positively with face validity ( $r = .22, p < .01$ ) and opportunity to perform ( $r = .13, p < .10$ ) of paper resumes, and it correlated negatively with test fairness ( $r = -.12, p < .10$ ), perceived predictive validity ( $r = -.19, p < .01$ ), and opportunity to perform ( $r = -.13, p < .10$ ) of video resumes (Table 1). Apparently, higher host country language proficiency is related to more positive perceptions of the paper resume than of the video resume. This is in line with the correlations of educational level and several of the study measures. Indeed, language proficiency was a significant moderator when introduced as a covariate for ethnic minorities, and Turkish/Moroccan ethnic minority applicants in particular (e.g.,  $F(1, 184) = 4.27, p = .04, \eta^2 = .02$  for test fairness and  $F(1, 183) = 9.05, p = .00, \eta^2 = .05$  for perceived predictive validity).

## Discussion

The recent increased use of technology in selection has resulted in the emergence of video resumes. With this study, we are among the first to investigate applicant perceptions of video resumes, and ethnic minority applicants in particular, thereby adding to the literature on

the use of multimedia in recruitment and applicant perceptions in three ways. First, our results show that video resumes are perceived as more fair compared to paper resumes, regardless of one's ethnic background. This finding corroborates with previous findings in which multi-media testing was perceived more positively compared to paper-and-pencil test (e.g., Potosky & Bobko, 2004). The results for job relatedness (face validity and perceived predictive validity) and opportunity to perform, however, were in the opposite direction. At first sight, this appears to be contradictory (i.e., higher fairness perceptions vs. lower procedural justice perceptions of video resumes compared to paper resumes). However, the testing of Hypothesis 2, which looked at between group differences, clarified these seemingly contradictory findings. Ethnic minority applicants, and Turkish/Moroccan applicants in particular, perceived the predictive validity, face validity and opportunity to perform of video resumes as equal or higher when compared Dutch ethnic majority applicants.

Taking ethnic group differences into consideration is the second contribution of this study. Studies on applicant perceptions across cultures show that paper resumes are perceived fairly equal (favorable) across countries (Anderson et al., 2010), supporting the 'reaction generalizability' hypothesis. Less is known, however, on the use and preferences of immigrants/ethnic minorities *within* countries. And virtually no research exists on perceptions of video resumes. Furthermore, knowledge on the perceptions of ethnic minority applicants is important because potential legal and discriminatory concerns have been raised with the use of video resumes (Lefkowitz, 2007). Interestingly, and despite these concerns, ethnic minority applicants perceived the fairness of video resumes equally or more positively when compared to ethnic majority applicants, and when compared to paper resumes. For example, the face validity of video resumes is perceived more positively compared to paper resumes by Turkish/Moroccan

applicants, who suffer the most from actual employment discrimination in Dutch society. These results are interesting in the light of an on-going debate in several Western countries on the merits of applying anonymously (Born, 2010), which implies that social categorization characteristics (i.e., sex, ethnicity) are masked during screening. Video resumes can be regarded as the opposite of applying anonymously. Our results suggest that ethnic minority applicants do not perceive video resumes more negatively when compared to paper resumes, even though more personalized information is visible through visual and auditory cues. Apparently, ethnic minority applicants perceive it as more fair to show *more* personal characteristics that are related to their ethnicity at the earliest screening phase (e.g., in a video resume), instead of *less* ethnicity related cues (e.g., applying anonymously). This supports the idea of a preference among ethnic minority applicants for a more personalized way of applying (individuation), instead of a de-personalized application because of possible hiring discrimination. Ethnic minority applicant perceptions were moderated, however, by perceived host country language proficiency.

### **The role of ethnic identity and language proficiency**

As a third contribution to the literature we explored possible moderators of ethnic minority applicant perceptions, namely ethnic identity and perceived language proficiency. Post hoc analyses showed that ethnic minorities who identified more strongly with their ethnic group showed more positive applicant perceptions of both video and paper resumes. It may be that ethnic identity strength is related to a more positive perception of selection instruments in general, for instance due to its relation with overall psychological well-being.

Language proficiency moderated the ethnic minorities' applicant perceptions. We infer from this that for some applicants, video resumes are perceived more beneficial than for others, e.g., for those who have a weaker labor market position due to lack of limited host country language

proficiency, or for those who need a way to compensate for a lack of official skill certificates.

This is important for theoretical reasons as well as for practical reasons, like coaching applicants how best to present themselves in the recruitment phase.

### **Limitations and implications**

Some caution is warranted as regards the generalizability of our findings because of the nature of the participating applicant pool. All were unemployed job seekers, who may welcome video resumes more than other (employed) applicants because of their relatively weak labor market position. For example, because video resumes allow them to compensate for limited language skills or to show acquired skills that are not formalized in education and may remain unnoticed in paper resume screening. Please note that procedural justice perceptions were related to participants' ethnic background but –in our sample- ethnicity did not relate significantly to the duration of unemployment. Furthermore, duration of unemployment did not correlate with fairness perceptions of paper and video resumes. Applicant perceptions may be more related to knowledge and skills (language proficiency, education) and attitude (ethnic identity) than to actual career outcomes (e.g., duration of unemployment). Another reason why our participants may have welcomed video resumes more than other applicants is that the training they attended focused on video resume creation. Whether participants' previous selection experiences (in general) and with resume creation (in particular) affected their perceptions was not the focus of this study and can be considered in a follow-up study. An additional possible limit to the generalizability of our findings is that the participants attended a subsidized training and it is unknown to what extent they actually used their video resume or how it may have contributed to their job search success. Therefore, we suggest future research to focus on distributive justice as well. Lastly, the unequal subgroup sample sizes may have affected the results (i.e., the ethnic

minority subgroup sample was over four times larger than the ethnic majority subgroup).

Although homogeneity of variance was not violated, we urge for replication in more balanced subgroup samples if possible. Despite these potential limitations, our research has much practical value. Because of the increasing ethnic diversity of the workforce, as well as discriminatory and legal concerns, it is important to know more about how ethnic minority applicants perceive the fairness of video resumes, e.g. to avoid accusations of discrimination. Additionally, it may help in the training and coaching of ethnic minority applicants on how to best present themselves.

Fairness perceptions, however, may differ from actual fairness. The video resume is a relatively new tool and not much is known on the actual threats and benefits for selection and this should be investigated to a further extent. Furthermore, the role of ethnic identity, perceived job discrimination (distributive justice) and the relation with litigation intentions could be researched to a further extent. Future research may also investigate contingencies, namely differential effects of verbal cues (e.g., ethnic-sounding accent), non-verbal cues (e.g., religious symbols, social stigmas), and competencies that are revealed through video resumes. In conclusion, video resumes are an upcoming recruitment tool that still needs much research to understand its potential threats and benefits, especially for ethnically diverse applicants. With this paper, we hope having contributed to this new area of research.

### References

- Anderson, N. (2011). Perceived job discrimination: Toward a model of applicant propensity to case initiation in selection. *International Journal of Selection and Assessment*, 19, 229-244. doi:10.1111/j.1468-2389.2011.00551.x
- Anderson, N., Born, M., & Cunningham-Snell, N. (2001). Recruitment and selection: Applicant perspectives and outcomes. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial, work and organizational psychology* (pp. 200–218). London: Sage.
- Anderson, N., Salgado, J., & Hulsheger, U.R., (2010). Applicant reactions in selection: Comprehensive meta-analysis into reaction generalization versus situational specificity. *International Journal of Selection and Assessment*, 18, 291-304. doi: 10.1111/j.1468-2389.2010.00512.x
- Andriessen, I., Dagevos, J., Nievers, E., Boog, I. (2007). *Discriminatiemonitor niet-westerse allochtonen op de arbeidsmarkt 2007*. [Discrimination monitor non-Western ethnic minorities and the labour market 2007]. The Hague: Sociaal Cultureel Planbureau.
- Barrick, M. R., Shaffer, J. A., & DeGrassi, S. W. (2009). What you see may not be what you get: Relationships among self-presentation tactics and ratings of interview and job performance. *Journal of Applied Psychology*, 94, 1394-1411. doi:10.1037/a0016532
- Bauer, T. N., Truxillo, D. M., Paronto, M. E., Weekley, J. A., & Campion, M. A. (2004). Applicant reactions to different selection technology: Face-to-face, interactive voice response, and computer-assisted telephone screening interviews. *International Journal of Selection and Assessment*, 12, 135-148. doi: 10.1111/j.0965-075X.2004.00269.x

- Berry, J. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, 46, 5-34. doi:10.1111/j.1464-0597.1997.tb01087.x
- Bertrand, M. & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *The American Economic Review*, 94, 991-1013. [doi:10.1257/0002828042002561](https://doi.org/10.1257/0002828042002561)
- Born, M. P. (2010). Assessing people for work-related purposes: Diversity, morality and subjectivity. *Gedrag & Organisatie*, 23, 232-256. Retrieved from [http://www.boomlemmatijdschriften.nl/tijdschrift/GenO/2010/3/GenO\\_2010\\_023\\_003\\_004](http://www.boomlemmatijdschriften.nl/tijdschrift/GenO/2010/3/GenO_2010_023_003_004)
- Chan, D., & Schmitt, N. (1997). Video-based versus paper-and-pencil method of assessment in situational judgment tests: Subgroup differences in test performance and face validity perceptions. *Journal of Applied Psychology*, 82, 143-159. doi:10.1037/0021-9010.82.1.143
- Central Bureau of Statistics (CBS; 2010). *Bevolking naar herkomstgroepering en generatie* [Population's ethnic background and generation]. Retrieved from <http://www.cbs.nl>.
- Clooks (2011). *Ooit een CV zien glimlachen?* [Ever saw a resume smile?]. Retrieved from: <http://www.clooks.nl/>
- Dagevos, J., Gijsberts, M., Van Praag, C. (2003). *Rapportage Minderheden 2003: Onderwijs, arbeid and Socio-Culturele Integratie*. [Minorities report 2003: Education, Work and Socio-Cultural Integration]. The Hague: Sociaal Cultureel Planbureau.
- De Beijl, R. Z. (2000). *Documenting discrimination against migrant workers in the labor market: A comparative study of four European countries*. Geneva, Switzerland: International Labor Office.



- Derous, E., Nguyen, H. H., & Ryan, A. M. (2009). Hiring discrimination against Arab minorities: Interactions between prejudice and job characteristics. *Human Performance*, 22, 297-320. doi:10.1080/08959280903120261
- Derous, E., Ryan, A. M., & Nguyen, H-H. D. (2012). Multiple categorization in resume screening: Examining effects on hiring discrimination against Arab applicants in field and lab settings. *Journal of Organizational Behavior*, 33, 544-570. doi: 10.1002/job.769
- Derous, E., Taveirne, A., & Hiemstra, A.M.F., (2012, April). *Resume-Resume On The Video-Wall: Who's The Most Hireable Of All?* Interactive poster presented at the 27<sup>th</sup> Annual Conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Dinsbach, A.A., & Feij, J.A. (2003). Organisatiesocialisatie en Organisatie-identificatie bij werknemers van Marokkaanse afkomst: de rol van waargenomen ongelijke behandeling van allochtonen en werkgroepdiversiteit [Socialization and organizational identification among Moroccan employees: the role of perceived discrimination and work group diversity]. *Gedrag & Organisatie*, 16, 436-452.
- Doyle, A. (2010). *Video Resume - Video Resumes for Job Seekers*. Retrieved from <http://jobsearch.about.com/od/resumes/g/videoresume.htm>.
- Garcia-Izquierdo, A. L., Aguinis, H., & Ramos-Villagrasa, P. J. (2010). Science-practice gap in e-recruitment. *International Journal of Selection and Assessment*, 18, 432-438. doi: 10.1111/j.1468-2389.2010.00525.x
- Gilliland, S. W. (1993). The perceived fairness of selection systems – An organizational justice perspective. *Academy of Management Review*, 18, 694-734. doi: [10.2307/258595](https://doi.org/10.2307/258595)
- Gissel, A., Thompson, L., Pond, S., & Meade, A. (April, 2011). *A Theory-Driven Investigation of Prospective Applicants' Intentions to Submit Video Résumés*. Paper presented at the 26<sup>th</sup>

Annual of the Society for Industrial and Organizational Psychology Conference, Chicago, IL.

Hausknecht, J. P., Day, D. V., & Thomas, S. C. (2004). Applicant reactions to selection procedures: An updated model and meta-analysis. *Personnel Psychology*, 57, 639-683. doi: 10.1111/j.1744-6570.2004.00003.x

Herriot, P. (2004). Social identities and applicant reactions. *International Journal of Selection and Assessment*, 12, 75-83. doi:10.1111/j.0965-075X.2004.00265.x

Hosoda, M., & Stone-Romero, E. (2010). The effects of foreign accents on employment-related decisions. *Journal of Managerial Psychology*, 25, 113-132. doi:10.1108/02683941011019339

Kluger, A.N., & Rothstein, H.R. (1993). The influence of selection test type on applicant reactions to employment testing. *Journal of Business and Psychology*, 8, 3-25. doi:10.1007/BF02230391

Lefkow, D (2007). *What the lawyers think of video resumes*. Retrieved from: [http://www.directorofrecruiting.com/2007/06/what\\_the\\_lawyer.html](http://www.directorofrecruiting.com/2007/06/what_the_lawyer.html)

Levy, D. A., Collins, B. E., & Nail, P. R. (1998). A new model of interpersonal influence characteristics. *Journal of Social Behavior and Personality*, 13, 715-733.

Lindert, A. T., Korzilius, H., Van de Vijver, F. J. R., Kroon, S., & Arends-Toth, J. (2008). Perceived discrimination and acculturation among Iranian refugees in the Netherlands. *International Journal of Intercultural Relations*, 32, 578-588. doi:10.1016/j.ijintrel.2008.09.003

- Linnehan, F., Chrobot-Mason, D., & Konrad, A. M. (2006). Diversity attitudes and norms: The role of ethnic identity and relational demography. *Journal of Organizational Behavior*, 27, 419-442. doi:10.1002/job.382
- Lievens, F. & Harris, M.M. (2003) Research on Internet recruitment and testing: Current status and future directions. In C.L. Cooper and I.T Robertson (eds.), *International Review of Industrial and Organizational Psychology* (pp. 131-165). Chichester: John Wiley & Sons Ltd.
- Oostrom, J. K., Born, M. P., Serlie, A. W., & van der Molen, H. T. (2010). Effects of individual differences on the perceived job relatedness of a cognitive ability test and a multimedia situational judgment test. *International Journal of Selection and Assessment*, 18, 394-406. doi:10.1111/j.1468-2389.2010.00521.x
- Operario, D., & Fiske, S. T. (2001). Ethnic identity moderates perceptions of prejudice: Judgments of personal versus group discrimination and subtle versus blatant bias. *Personality and Social Psychology Bulletin*, 27, 550-561. doi:10.1177/0146167201275004
- Phinney, J. S. (1996). Understanding ethnic diversity - the role of ethnic identity. *American Behavioral Scientist*, 40, 143-152. doi: 10.1177/0002764296040002005
- Phinney, J.S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with adolescents and young adults from diverse groups. *Journal of Adolescent Research*, 7, 156-176. doi: 10.1177/074355489272003
- Phinney, J. S., & Ong, A. D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology*, 54, 271-281. doi:10.1037/0022-0167.54.3.271

- Potosky, D., & Bobko, P. (2004). Selection testing via the internet: Practical considerations and exploratory empirical findings. *Personnel Psychology*, 57, 1003-1034. doi:10.1111/j.1744-6570.2004.00013.x
- Queensland Tourist Board Australia (2009). *About the best job*. Retrieved from: <http://islandreefjob.com/about-the-best-job/>.
- Quinn, K. A., Mason, M. F., & Macrae, C. N. (2009). Familiarity and person construal: Individuating knowledge moderates the automaticity of category activation. *European Journal of Social Psychology*, 39, 852-861. doi:10.1002/ejsp.596
- Richman-Hirsch, W., Olson-Buchanan, J., & Drasgow, F. (2000). Examining the impact of administration medium on examinee perceptions and attitudes. *Journal of Applied Psychology*, 85, 880-887. doi:10.1037//0021-9010.85.6.880
- Ryan, A. M., & Ployhart, R. E. (2000). Applicants' perceptions of selection procedures and decisions: A critical review and agenda for the future. *Journal of Management*, 26, 565-606. doi: 10.1177/014920630002600308
- Smith, T. B., & Silva, L. (2011). Ethnic identity and personal well-being of people of color: A meta-analysis. *Journal of Counseling Psychology*, 58, 42-60. doi:10.1037/a0021528
- Smither, J. W., Reilly, R. R., Millsap, R. E., Pearlman, K., & Stoffey, R. W. (1993). Applicant reactions to selection procedures. *Personnel Psychology*, 46, 49-76.
- Sylva, H., & Mol, S. T. (2009). E-recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment*, 17, 311-323. doi: 10.1111/j.1468-2389.2009.00473.x

- Tajfel, H., & Turner, J.C. (1986). The social identity theory of intergroup behavior. In S. Worchel, & W.G. Austin (eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago, IL: Nelson-Hall.
- van Tubergen, F. (2010). Determinants of second language proficiency among refugees in the Netherlands. *Social Forces*, 89, 515-534. doi: 10.1353/sof.2010.0092
- Wichink Kruit, M. (2010). *Solliciteren met een video CV –zo doe je dat* [The video resume application – a guided tour]. Retrieved from <http://www.intermediair.nl/artikel/coach-sollicitatie/150316/solliciteren-met-een-videocv-zo-doe-je-dat.html>
- Waung, M., Beatty, J., Hymes, R., & McAuslan, P. (2012, April). The effects of applicant gender and the frequency and intensity of video resume self-promotion statements on job applicant evaluations. In: E. Derous (Chair) and A. Buijsrogge (Co-Chair). *Assessing Video Resumes: Valuable and/or Vulnerable to Biased Decision-making?* Paper presented at the 27th Annual SIOP Conference, San Diego, CA.
- Wiechmann, D., & Ryan, A. M. (2003). Reactions to computerized testing in selection contexts. *International Journal of Selection and Assessment*, 11, 215-229. doi:10.1111/1468-2389.00245

Table 1.

*Descriptive Statistics and Correlations between Applicant Characteristics and Study Variables*

		<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Sex	1.42	.49	--	-.01	-.01	.08	.00	.06	.10	-.01	-.04	-.05	.03	.01	-.01	-.05	.02
2.	Age	32.21	9.38	.00	--	-.16**	.16**	.27**	-.06	-.32**	.02	.15**	.04	.10	.03	.07	.00	.11
3.	Education	1.85	.71	-.07	.19	--	-.18**	-.31**	.00	.14†	.02	-.18**	-.05	-.20**	.20**	-.10	.06	-.13*
4.	Time unemployed	1.91	1.25	.03	.28*	-.01	--	.25**	.08	-.08	.00	.03	.05	.08	-.01	-.01	-.03	.03
5.	Internet use	2.02	1.07	-.13	.22*	-.25*	.16	--	-.10*	-.34**	-.03	.09	-.02	.12*	-.10	.01	-.05	.09
6.	Ethnic Identity Strength	3.72	.86	.13	.00	-.17	-.10	.09	(.83)	.16*	.11*	.11*	.19**	.10	.09	.19**	.12*	.15**
7.	Language proficiency	1.98	.81	.20	-.34*	-.27	-.11	.24	.22	(.88)	.04	-.12	.00	-.19**	.22**	.02	.13	-.13
8.	Test fairness paper resume	3.15	.68	-.01	.08	.22*	-.08	.04	.04	.21	(.75)	.19**	.52**	.10	.41**	.07	.53**	.11*
9.	Test fairness video resume	3.28	.77	-.10	-.11	-.04	-.04	.01	.06	-.04	.11	(.82)	.24**	.62**	.06	.58**	.10	.54**
10.	Perceived predictive validity paper	2.94	.63	-.07	.11	.07	-.11	-.07	.03	.10	.52**	.34**	(.73)	.40**	.37**	.23**	.60**	.34**
11.	Perceived predictive validity video	2.92	.73	-.14	-.05	-.14	-.17	-.01	.03	.12	.19	.65**	.42**	(.79)	.06	.46**	.19**	.69**
12.	Face validity paper resume	3.69	.61	-.01	.17	.29**	.13	-.06	.13	.06	.35**	-.01	.16	.00	(.80)	.25**	.49**	.15**
13.	Face validity video resume	3.61	.61	.01	.01	.14	.14	-.11	.03	-.11	.18	.37**	.21	.21	.34**	(.71)	.17**	.46**
14.	Opportunity to perform paper resume	3.25	.71	-.08	.23*	.10	.06	.03	.09	.12	.53**	.02	.46**	.07	.44**	.23*	(.82)	.29**
15.	Opportunity to perform video resume	3.21	.79	-.04	.02	-.11	.05	.04	.04	.20	.24*	.54**	.31**	.60**	.19	.47**	.38**	(.87)

*Note.* Correlations above the diagonal are for ethnic minority applicants, correlations below the diagonal are for ethnic majority applicants. Reliabilities ( $\alpha$ ) are presented on the diagonal. The variables are coded as follows: Sex (1=male, 2=female), Education (1 = vocational education, 2 = secondary vocational education, 3 = Bachelor/Master), Time unemployed (1 = less than 6 months, 2 = 6 to 12 months, 3 = 1 to 2 years, 4 = 2 to 4 years, 5 = more than 4 years), Internet use (1 = hardly ever, 2 = monthly, 3 = weekly, 4 = daily, 5 = more than once a day).  $N = 445$  ( $N$  ethnic majority = 89,  $N$  ethnic minority = 356), except for language skills:  $N = 244$  ( $N$  ethnic majority = 49,  $N$  ethnic minority = 195).

\*  $p < .05$ , \*\*  $p < .01$ .

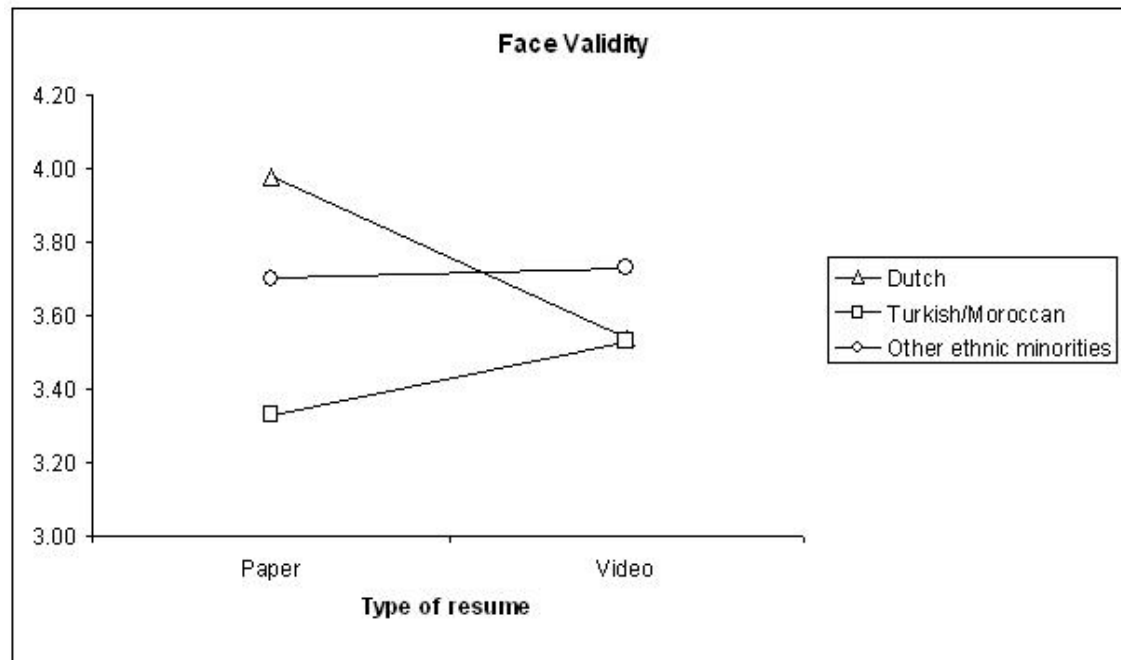


Figure 1. Interaction of ethnicity and type of resume on face validity

Table 2

*Descriptives and Repeated Measures ANCOVA results for Fairness Perceptions of Paper and Video*

*Resumes among Ethnic Majority and Minority Applicants*

		Paper	Video	F-value	$\eta^2$
		<i>M (SD)</i>	<i>M (SD)</i>		
Test fairness	Dutch ethnic majority	3.15 (.52)	3.13 (.63)	$F(1, 83) = 2.25$	.03
	Ethnic minorities	3.16 (.71)	3.31 (.80)	$F(1, 341) = 14.77^{**}$	.04
	a.Turkish/Moroccan	3.22 (.75)	3.32 (.84)	$F(1, 72) = 2.97^{\dagger}$	.04
	b.Other ethnic minorities	3.15 (.70)	3.31 (.79)	$F(1, 267) = 11.83^{**}$	.06
Perc. Predictive validity	Dutch ethnic majority	2.82 (.59)	2.76 (.63)	$F(1, 83) = 1.85$	.02
	Ethnic minorities	2.98 (.64)	2.96 (.75)	$F(1, 336) = 8.87^{**}$	.02
	a.Turkish/Moroccan	3.05 (.72)	3.09 (.70)	$F(1, 72) = 2.28$	.03
	b.Other ethnic minorities	2.95 (.62)	2.93 (.76)	$F(1, 262) = 4.72^*$	.02
Face validity	Dutch ethnic majority	3.84 (.57)	3.55 (.55)	$F(1, 82) = .12$	.02
	Ethnic minorities	3.67 (.61)	3.63 (.63)	$F(1, 336) = 15.43^{**}$	.04
	a.Turkish/Moroccan	3.49 (.68)	3.60 (.66)	$F(1, 71) = 9.38^{**}$	.12
	b.Other ethnic minorities	3.72 (.58)	3.64 (.62)	$F(1, 265) = 6.93^{**}$	.03
Opportunity to perform	Dutch ethnic majority	3.21 (.65)	3.06 (.60)	$F(1, 82) = .80$	.01
	Ethnic minorities	3.27 (.73)	3.25 (.83)	$F(1, 337) = 6.71^{**}$	.02
	a.Turkish/Moroccan	3.28 (.76)	3.34 (.84)	$F(1, 72) = 1.11$	.02
	b.Other ethnic minorities	3.27 (.72)	3.22 (.84)	$F(1, 262) = 5.57^*$	.02

*Note.* Different ANCOVA's were performed for the different subgroups.  $^{\dagger} p < .10$ ,  $^* p < .05$ ,  $^{**} p < .01$ .