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INVESTIGATING APPLICANT REACTIONS FROM A MULTIPLE STAKEHOLDER
PERSPECTIVE: AN EMPIRICAL STUDY WITHIN THE BELGIAN MILITARY [♣]

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Abstract

Recently, the Belgian military launched a study to map applicant reactions towards the career office consultation (CO), the initial intelligence screening (PInP), and the extended psychological screening (CRS), using a multiple stakeholder perspective. Items were generated based on existing applicant reaction models and interviews held with 250 applicants. Fifty-three Subject Matter Experts (SMEs) sorted and labeled the resulting items. Classical multidimensional scaling and additive tree modeling revealed two-dimensional (CO and PInP) and three-dimensional configurations (CRS), comprising specific regions for each of them. Although SMEs were not informed about the research goal, both the graphic solution and labeling task came close to the theoretical categories of existing models. Besides generic categories, also very context-specific categories emerged that are relevant for the particular military hiring context. The study shows ‘Differentiation’ as an important but rather underrepresented dimension in existing literature. Methodological, theoretical and practical relevance of study findings are discussed.

INVESTIGATING APPLICANT REACTIONS FROM A MULTIPLE STAKEHOLDER PERSPECTIVE: AN EMPIRICAL STUDY WITHIN THE BELGIAN MILITARY

In recent years, shortages in labor markets became apparent across the States and Europe. Militaries in several nations are increasingly facing difficulties in attracting and enlisting new recruits (Bachman, Segal, Freedman-Doan, & O'Malley, 2000). Besides problems attracting a sufficient number of qualified applicants, police and armed forces often suffer from unwarranted withdrawals during their selection procedure (Ryan, Sacco, McFarland, & Kriska, 2000). Until now, research on military propensity and enlistment mainly focused on general factors, such as demographic, educational, and family background factors, as well as on attitudes about military service (Bachman et al., 2000). Yet, specific factors determining applicants' attraction to the military in early selection stages have not been investigated extensively (for an exception, see Lievens, Van Hove, & Schreurs, 2005). Among these factors are procedural characteristics of the selection encounter (e.g., amount and direction of feedback) and the way they are perceived by applicants (e.g., perceived test fairness).

For a long time, psychometrics dominated research on personnel selection, while applicants' perceptions, expectations, preferences, motivation, and feelings were neglected and considered as a source of measurement error. As from the eighties, researchers and practitioners started to realize that this one-sided psychometric approach overlooks the fact that selection involves two parties: the organization selects employees, but applicants also select – where they will apply and where they will work (Ryan & Ployhart, 2000). The number of studies addressing applicant reactions to selection procedures has grown rapidly ever since, most of them drawing from Gilliland's (1993, 1995) organizational justice model of applicant reactions to selection procedures. Gilliland suggested 10 procedural justice rules, which are related to formal characteristics (e.g., job relatedness), information offered during selection (e.g., feedback), and interpersonal treatment (e.g., propriety of questions). Several studies (Hausknecht, Day, & Thomas, 2004; Ployhart & Ryan, 1997) provided support for

Gilliland's model, and recent models of applicant reactions (Bauer et al., 2001; Derous, Born, & De Witte, 2004; Fallon, Gilliland, Groth, & Ferreter, 2002) continue borrowing from his framework (see Table 1 for an overview of recent applicant reaction models).

Surprisingly, the recruitment and selection literature remains almost mute on the reactions of stakeholders apart from applicants. Yet, incorporating a multiple stakeholder perspective into the applicant reaction research may be helpful, for example, in understanding why some selection methods (e.g., structured selection interview, van der Zee, Bakker, & Bakker, 2002) are still under-utilized in practice. To the best of our knowledge, only a limited number of studies have investigated the selectors' point of view. Connerley, Mael and Morath (1999) asked students to investigate the invasiveness of interview questions both in the role of applicants as well as prospective co-workers. The *same* individuals were reluctant to reveal information when role-playing applicants but did request this information when role-playing prospective co-workers. Although this is an interesting study, the ecological validity of the study is still limited due to the use of student samples. In a study of Smither, Reilly, Millsap, Pearlman and Stoffey (1993), 110 newly hired employees as well as 44 real recruiters judged the perceived job relevance of six selection tools. Except for minor differences, perceptions of newly hired employees and recruiting/employment managers did not differ much. More recently, Derous et al. (2004) investigated real applicants' and recruiters' preferences and expectations about the selection procedure. The results showed that applicants and selectors had different preferences: applicants preferred a tailor-made treatment with a lot of transparency, feedback and participation, whereas selectors preferred a standardized-objective approach, providing a lot of information on the job opening.

The military, having a longstanding tradition in psychometric research (e.g., Stewart, 1947), has paid limited (research) attention to the applicant's perspective on recruitment and selection, although some progress has been made along these lines. For example, vocational interest inventories

are being developed in order to better attract, employ, and retain its newly hired personnel (Jones & Chen, 2005); it is long known that traditional job previews (contrary to realistic job previews) may lead to inflated job expectations among applicants (Ilgen & Seely, 1974; Meglino, DeNisi, Youngblood, & Williams, 1988). Similarly, the importance of early recruitment activities (e.g., military career office) has been recognized as they can influence potential applicants' job pursuit intentions (Schreurs et al., 2005). Despite the progression made, our knowledge of applicant reactions to military selection procedures is still scarce, especially when compared to research conducted on non-military samples. Furthermore, research on stakeholders' reactions apart from applicants is limited. The present study tries to fill this gap by applying a multiple stakeholder perspective into the applicant reaction research. As will be described below, this study integrates the opinions of applicants and experts in military hiring, highlighting dimensions of applicant reactions that are relevant to both stakeholder groups.

Whereas prior applicant reaction studies were limited to 'generic' reactions (see Table 1) applicable to the majority of selection settings, this study also contributes to the literature by investigating context-specific (i.e., military) reactions. Since the military has its own, specific way of hiring applicants, it is undecided whether findings from non-military samples can simply be generalized to military populations. The benefit of using context-specific measures has been widely recognized, for instance in research on work values (Hartung, Taber, & Richard, 2005), personality appraisal (Schmit, Ryan, Stierwalt, & Powell, 1995), and in research on applicant reactions (Chan & Schmitt, 2004). One important reason to investigate context-specific reactions, in addition to more generic ones, is that these may be more predictive of context-specific outcome variables. For example, applicant perceptions of physical requirements may be more predictive for applicants withdrawing from the military hiring procedure than perceptions of test fairness. An additional argument for investigating context-specific reactions is that most existing applicant reaction models are developed

and validated by using (under)graduate students or applicants with at least a high school degree (e.g., Bauer et al., 2001). This population is by no means representative for the military, since the military recruits from the entire educational spectrum: from primary education to graduate degree.

The aim of this study was twofold. First, we wanted to investigate how experts in military hiring would interpret reactions to military recruitment and selection generated by a variety of applicant samples. Second, we wanted to examine to what extent experts would be consistent in labeling the emerging clusters of applicant reactions.

METHOD

Context

The study was conducted in the Belgian military. The hiring procedure for the Belgian military contains multiple hurdles, similar to procedures in most other nations' militaries (Schreurs, 2001). In this study, we examined applicants' and experts' reactions toward the first three hurdles of the recruitment and selection process. These hurdles are identical for all applicants and consist of the career office consultation (Hurdle 1), the initial intelligence screening (Hurdle 2), and the extended screening (Hurdle 3). The career office consultation takes place in one of the career offices (CO), spread all over the country. Career counselors provide visitors with information (on vacancies, working conditions, career possibilities, and other organizational characteristics) based on which prospects can decide whether to apply. Upon their final decision to apply, applicants are screened through a computerized cognitive ability test (PInP), measuring memory, spatial, numeric and logical reasoning. After passing the test, an appointment is made for the extended screening at the Center for Recruitment and Selection (CRS). Extended screening takes one day, and comprises a medical examination (including pregnancy and drug testing), physical examination (i.e., ergometrical bike test), and personality screening (i.e., personality inventory, selection interview).

Phase 1: Item Generation

A three-step procedure was applied to generate applicant reaction items. First, three expert judges (academic researchers) selected items from applicant reaction models/measures (e.g., Bauer et al., 2001; Derous et al., 2004; Fallon et al., 2002; Gilliland, 1993, see Table 1). In addition, 250 semi-structured one-to-one interviews (telephonically/face-to-face) were held with applicants. To touch upon a wide array of concerns, expectations and experiences, interviewees were selected from four different samples, namely applicants (a) who visited the CO, (b) who completed initial screening (PInP), (c) who completed screening at the CRS, and (d) who withdrew from selection. Applicants were interviewed at these different points in the recruitment and selection procedure (upon entry, after they completed the PInP, after they went through the CRS) to get a clear idea of perceptions at these different points in time. This was done in order to tailor the items to these different hurdles. The literature review (see Table 1) and the interviews resulted in 221 items. Next, these items were assigned to theoretical categories by four other expert judges (two academic researchers, two selection officers). Items were included in a category if at least three judges agreed that the item fit the category. Finally, these judges assigned categories to three selection hurdles, namely CO (58 items, 7 categories), PInP (39 items, 7 categories) and CRS (124 items, 19 categories). They were assigned to a hurdle if at least three judges agreed that the category fit the hurdle (see Appendix for initial categories and example items).

Phase 2: Expert Analysis

Participants. Fifty-three Subject Matter Experts (SMEs) participated in the research. They were employed in the field of recruitment and selection of the Belgian military, and had at least four years of experience in this area. The group of SMEs was composed of career counselors ($n = 20$), selection officers working at the CRS ($n = 22$), and staff personnel responsible for the accession policy ($n = 11$). Ten percent of SMEs were women. SMEs did not know the rationale or subject of the research.

Q-sorting and labeling. Data were gathered through Q-sorting (Kerlinger, 1973). Q-sorts are piles of items created based on the perceived similarity of items. We provided 221 items on separate cards to each SME. Experts sorted all cards into as many mutually exclusive piles (or Q-sorts) as seemed acceptable and significant to them. Finally, experts had to label each pile according to the perceived common meaning of the items that were selected into that pile. Sorting/labeling was done individually. No indication was given about the number or name of the theoretical categories (e.g., Borman & Brush, 1993).

Analyses

Statistical and interpretative analyses were performed on the Q-sorts to establish the underlying structure in the applicant reaction items. For *each* hurdle, we investigated (a) the appropriate graphic configuration of the corresponding items in terms of the amount and number of *regions*, (b) the *labeling* of the regions within the graphic configuration, and (c) the meaning of the underlying *dimensions* within the graphic configuration.

Statistical analyses. For each pair of items, dissimilarities were calculated as the total number of experts not sorting two items into the same pile. Values varied between 0 (i.e., every SME put both items into the same pile) and 53 (i.e., no SME put both items together). Classic ordinal multidimensional scaling analysis (MDS, for more information, see Borg & Groenen, 1997) was then applied to the proximity matrices of CO, PInP, and CRS. MDS was carried out using the PROXSCAL algorithm (SPSS v.11.0.1). Additionally, additive tree modeling was applied to the proximity matrix, making use of the GTREE computer program¹ (Corter, 1998). Additive tree modeling was used as an additional check on the visual demarcation of the MDS-regions.

¹ Because GTREE source code and executable DOS version are limited to a maximum of 80 objects, we changed size limits and recompiled the program using the Free Pascal Compiler v.1.0.10 for the operating system LINUX to analyze the CRS matrix ($n = 124$ items). To the best of our knowledge, this is the first study that fits such an extensive matrix through additive tree analysis (J.E. Corter, personal communication, July 6, 2004).

Interpretative analyses. First, we interpreted regions on the basis of (a) visual inspection of the MDS configuration, and (b) degree of consistency in the labeling of the regions, by means of the CIM-index (Derous, De Witte, & Stroobants, 2003). Second, we interpreted the dimensions of the MDS-solution, based on the configuration and labeling of the regions.

RESULTS

Selection of the Spatial Configuration

In line with Kruskal (1964), we computed MDS-solutions in one through five dimensions for each of the three hurdles. To select the appropriate dimensionality, first, an adjusted form of Cattell's scree test was employed (Kruskal, 1964), showing slight elbows at $n = 2$ dimensions, supporting two-dimensional solutions for CO, PInP and CRS. Stress-1 (R^2) for two-dimensional solutions were .09 (.99) for PInP, .17 (.97) for CO, and .22 (.95) for CRS (see Table 2). In addition, Kruskal's rules of thumb were considered for choosing appropriate Stress-1 levels. Stress-1 is considered good at .05, acceptable at .10 and poor from .20 on (Kruskal, 1964). Therefore, corroborative evidence for two-dimensional solutions for CO and PInP was found. Applying the principle of simple structure (Borg & Groenen, 1997), we selected a two-dimensional solution for CO and PInP. However, a three-dimensional solution was chosen for the CRS, as fit improved substantially compared to the two-dimensional solution (Stress-1=.15; R^2 =.98). Apart from these statistical criteria, a more substantive consideration, namely the interpretability of the dimensions (Kruskal & Wish, 1978), also supported this decision. Compared to a three-dimensional solution, two-dimensional solutions illuminated the most important aspects of PInP and CO. Yet, a third dimension appeared to add systematic, meaningful structure to the CRS solution (see below).

Interpretation of Regions

Regional interpretation based on visual inspection of the spatial configurations and the additive tree solutions. Visual inspection of the spatial configurations led to the delineation of 9 (CO),

7 (PInP) and 16 (CRS) clusters or regions. Items belonging to the same region are supposed to have equivalent properties (as an example² the graphic solution for CO is shown in Figure 1). Next, additive tree modeling³ was applied to the proximity data to double check the demarcation of the spatial regions (Corter, 1996), resulting in stress scores of .09 ($R^2 = .90$), .07 ($R^2 = .92$) and .07 ($R^2 = .80$) for CO, PInP and CRS, respectively. An objective method for choosing clusters is to pick the root that creates balanced trees, with an approximately equal number of items in each cluster (or sub-tree) descending from the root thereby minimizing the variances of distances from the root to the terminal items (see Corter, 1996, for technical details). Applying these criteria as optimally as possible, 9, 7 and 16 clusters of items revealed for CO, PInP and CRS, respectively. Table 3 compares the additive tree solution to corresponding regions of the MDS-solutions for CO. Almost all items were clustered as could be expected based on the MDS solution. The same number of clusters (i.e., sub-trees) emerged, strengthening the MDS findings. Based on their central positioning within the MDS solutions, we excluded 12 (CO), 10 (PInP) and 41 items (CRS) from further analyses. Exclusion was only done if corroborative evidence was found based on the additive tree solutions.

Regional interpretation based on expert labeling. MDS indicates how similar items are perceived. Yet, no information is provided on the similarity of *interpretation* (i.e., labeling) of the resulting regions. To calculate the similarity of interpretations, we employed the Consistency-in-Meaning-index (CIM-index, Derous et al., 2003). The CIM-index quantifies the number of labels with different meanings (δL) of all items graphically belonging to the same region i (N_i), relative to the maximum number of different labels, which may be theoretically ascribed to all items of that region by all experts (N_e).

² Due to space constraints we included only one spatial configuration. The configurations for PInP and CRS as well as coordinates of items can be obtained from the authors on simple request.

³ The additive tree solutions, which are typically displayed in rooted forms, are available from the authors.

$$CIM = \left\{ 1 - \frac{(\delta L - 1)_i}{(N_i + N_g) - 1} \right\} \times 100$$

where
 N_i = Number of items in region i
 N_g = Number of experts
 δL = Amount of labels with a different meaning per region i

Regions are interpreted consistently if all items belonging to that region are sorted into piles that are interpreted in a similar way by SMEs. When only one meaning underlies all different labels attributed to a particular region, the CIM-index will be 100%. In the present study, CIM-indices varied from .80 to .95 for CO, with least consensus on the region Participation, and most consensus on Regions Clarity of information, Realism of job information, and Good treatment (see Table 3). CIM-indices⁴ varied from .87 (Perceived time pressure) to .95 (Face validity, Feedback) for PInP, and from .85 (Voice) to .96 (Feedback) for CRS.

Interpretation of underlying dimensions of regions

Orthogonal rotation of axes (Borg & Groenen, 1997) revealed two meaningful dimensions for CO (see Figure 1). The first dimension is called ‘Task versus Relation’. Items positioned high on the task-side belonged to Regions 2 (Documentation), 3 (Amount of information) and 4 (Clarity of information). These items refer to one of the core tasks of career counselors, namely providing information about career, organization, and applications. Items positioned high on ‘Relation’ belonged to Region 7 (Good treatment), referring to the way in which this information is provided (i.e., sensitive, warm, professional). The second dimension is called ‘Standardization versus Differentiation’. Items high on the standardization-end relate to the accessibility and accommodation of the career offices. Good accommodation and accessibility of career offices are regarded a ‘sine-qua-non’ for an objective, equal treatment of applicants (Region 9). The differentiation-end stands for a tailor-made treatment of applicants. Items high on ‘Differentiation’ belonged to Region 8 (Job choice).

⁴ Other CIM-indices of PInP and CRS are available from the authors.

This is a specific dimension for the military. Applicants generally apply for a career in the military instead of a particular job. However, at all time they are allowed to discuss specific job opportunities with the career counselors.

The first dimension of the PInP is also labeled ‘Standardization-Differentiation’. Items highest on ‘Standardization’ belonged to Regions 4 (Quiet test environment) and 5 (Computer comfort), guaranteeing an objective, equal treatment of applicants. Items highest on ‘Differentiation’ belonged to Region 3 (Feedback): feedback is provided according to applicants’ personal needs and wishes. The second dimension is called ‘Test: Accommodation versus tool’. Items high on ‘Accommodation’ belonged to Regions 4 (Quiet test environment) and 2 (Clarity of instructions). These are general procedural characteristics, whereas the ‘Tool-side’ refers to particular test characteristics, such as Perceived test ease (Region 6) and Face validity (Region 1).

Finally, three meaningful dimensions emerged for CRS: ‘Ethical/professional: high versus low’ (Dimension 1), ‘Task-Relation’ (Dimension 2) and ‘Standardization-Differentiation’ (Dimension 3). Items high on the Ethical-professional side belonged to Regions 6 (Advance information), 7 (Professionalism), 8 (Feedback), and 15 (Welcoming). Items on the other end belonged to Regions 4 (Faking) and 11 (Invasion of privacy). Items high on ‘Task’ belonged to Region 16 (Medical-physical examinations) and Region 1 (Face validity), referring to one of the core tasks of assessors, namely testing candidates. Items high on ‘Relation’ refer to Respect (Region 9), Welcoming (Region 15), Professionalism (Region 7), Discrimination (Region 2), and Delays (Region 13). Finally, items high on ‘Standardization’ belonged to Regions 7 (Professionalism), 9 (Respect), 11 (Invasion of privacy) and 16 (Medical-physical examinations). Items belonging to Regions 6 (Advance information), 8 (Feedback) and 13 (Delays) could be found on the Differentiation-side of that dimension. See Table 4 for an overview of applicant reactions toward CO, PInP, and CRS in terms of MDS regions.

DISCUSSION

This study aimed at integrating applicants' and military hiring experts' perceptions of the first three hurdles (i.e., CO, PInP, CRS) of the Belgian military hiring process. SMEs (i.e., recruiters, selection officers, staff personnel) were requested to sort items generated based on applicant reaction models and interviews with 250 applicants selected from various samples.

The first research question, "How will SMEs sort items?", was primarily addressed by MDS, which is a versatile technique that has been widely applied in behavioral science and will continue to be a major tool of perception research in marketing, sociology, anthropology, and psychology (Davison & Sireci, 2000). MDS is particularly useful for the development of new models and theories. In addition to MDS, we applied additive tree modeling as an additional check of the demarcation of the resulting MDS regions (Oltman, Stricker, & Barrows, 1990). MDS revealed 9 (CO) and 7 (PInP) regions, organized along two dimensions. For CRS, 16 regions emerged, along three dimensions. Additive tree modeling supported these findings very well.

The second research question, "How will experts label regions – and by consequence – clusters of items?" was addressed by content analysis on expert labeling. Experts generally reached a high consensus (high CIM-index) about the meaning of the regions, strengthening the MDS-solution. Interpretation was also quite similar to interpretation of researchers, who distilled relevant theoretical categories prior to Q-sorting based on existing applicant reaction models/questionnaires. Due to our tailor-made approach, very specific regions emerged, such as Job choice and Accommodation. Finally, all regions were organized along four dimensions: 'Standardization-Differentiation' (PInP, CO, CRS), 'Task-Relation' (CO, CRS), 'Test: accommodation versus tool' (PInP), and 'Ethical/professional: high versus low' (CRS).

Theoretical and Practical Contributions

‘Differentiation’ was uncovered as an important dimension of the Belgian military hiring system. Differentiation refers to a tailor-made, differential treatment of applicants. Items positioned highest on ‘Differentiation’ related to the opportunity to discuss job opportunities in the military (Job Choice), to receive information about the forthcoming selection procedure (Advance Information), to receive information about test performance (Feedback) and the occurrence of time delays during the procedure (Delays). Differentiation is the opposite pole of standardization, which has repeatedly been found one of the important aspects underlying applicant reactions toward recruitment and selection. For example, research has shown that selection procedures that are consistently administered are viewed as more fair (e.g., Gilliland, 1993). While previous applicant reaction research suggests that standardization is the ultimate goal to reach, practice learns that this objective is not easily accomplished and sometimes is deliberately skirted around. For example, the duration of the same selection procedure may differ considerably for applicants, when a multiple hurdle approach is used; affirmative action programs are used to monitor workforce statistics, paying attention to underrepresented gender and ethnic groups (Crosby, Iyer, Clayton, & Downing, 2003). From our results, it appears that, according to SMEs, some hiring practices ask for a differential instead of a standardized treatment. For example, recruiters, selection officers, and applicants may want the amount and content of job information and feedback to vary according to applicants’ interests, knowledge, inquisitiveness, and goal orientation (VandeWalle & Cummings, 1997). In view of the practical and theoretical relevance of ‘Differentiation’, it is surprising that this dimension has not explicitly been pointed out in previous empirical studies on applicant reactions.

Whereas previous studies focused on generic applicant reactions, largely drawn from Gilliland’s (1993) organizational justice model, this study acted on recent calls for examining context-specific reactions (e.g., Chan & Schmitt, 2004). Studying context-specific and generic reactions jointly is likely to be more informative and to provide more useful insights addressing practical concerns

associated with specific aspects (hurdles) of a particular hiring procedure. In addition to generic regions (e.g., feedback), several very specific categories emerged from the analyses, such as ‘Job choice’, ‘Accessibility and accommodation’, ‘Dissatisfaction with time delays’, ‘Welcoming of applicants’, and ‘Medical/physical examinations’. We note, though, that these regions/reactions may be specific but not *exclusively* for the (Belgian) military context. It may well be that some context-related factors are also relevant for other, non-military organizations. For example, employment drug testing is widely-used in many American-based companies (Mastrangelo, 1997); several organizations other than the military suffer from long delays as well (Rynes, Bretz, & Gerhart, 1991); and when adopting a customer-supplier model of selection (Smither et al., 1993), accessibility and accommodation, and welcoming are relevant for all hiring organizations (Parasuraman, Berry, & Zeithaml, 1991). An intriguing question for the Belgian military then, is *why* some specific items/regions emerged. Our research took place after a period of extensive reorganization that resulted in change of locations, housing, and test infrastructure. Furthermore, the number of physical tests had recently been reduced from four to one. These measures were taken to speed up to process and make it more client-friendly (Schreurs & Lescreve, 2001). As appears from our results, at the time of questioning applicants and SMEs were very occupied with these matters. This background description illustrates that MDS yields a mental map that is potentially very useful for policy makers to evaluate the current situation and act accordingly.

Previous studies on applicant reactions (e.g., Chan, Schmitt, Sacco, & DeShon, 1998; Ployhart & Ryan, 1998) have mainly considered reactions toward tests and test-taking during the assessment phase. No or little reference is made to the first or initial personal contact the applicant has with the organization. Consequently, some factors that fit the very first contact between applicant and organization (e.g., accessibility and accommodation, job information, recruiter behaviors) were not previously stressed, or even found, within studies that are typically called ‘applicant reaction’ studies.

These factors are considered as part of recruitment, a research area that is often discussed and presented separately from applicant reactions toward assessment activities. Although we agree that recruitment and selection are conceptually distinct, differences between recruitment and selection practices are not always as clear-cut as suggested in the literature. 'Job information', which is more characteristic for the recruitment phase, for example, can be provided in several phases of the hiring process (Breaugh & Starke, 2000), such as the CO and the CRS. Therefore, we argue that applicant reaction models should not be limited to the selection phase and may be extended with factors that are typical for early hiring phases. The present study adds to previous research by investigating applicant reactions at the CO, even before applicants decided to enroll for the selection procedure (i.e., PInP, CRS). Further research is needed to study how reactions change across the different phases.

Limitations and Further Research

Due to a candidate-focus agenda, the applicant reaction literature remains almost mute on perceptions and reactions of stakeholders apart from applicants. As stated by Ryan and Ployhart (2000), a multiple stakeholder perspective may be helpful to incorporate into the applicant reaction research. Studies in the area of customer service management, for example, emphasized the importance of understanding and meeting customer expectations, both of what is delivered to them and how it is delivered (Gilliland & Cherry, 1999). A promising avenue for further research, then, consists in replicating the expert analysis with applicants instead of recruiters, selection officers and staff personnel, to see whether the same regions appear. Further research could also investigate differences between groups of SMEs according to how they classify and label items. For example, career counselors and testing experts may have different perspectives on hiring. Although not investigated, that difference may show itself in the output of the categorization/labeling task and may be meaningful for practitioners in order to discuss their practices.

As this is the first time that the military explores its applicants' perceptions and opinions about the hiring process, an exploratory data analysis technique was used. The expert analysis was considered as an initial step into the evaluation of the hiring procedure. Experts are an interesting medium for the discussion of the results and setting the scene for further evaluation. The resulting regions now serve as a checklist for recruiters and selection officers to discuss the way applicants are treated and the way the hiring procedure can be improved. As a next step, the Belgian military may consider administering context-specific applicant reaction surveys to evaluate their hiring process and to examine which factors contribute to explaining variance in applicant attraction versus withdrawal.

Conclusion

The present study contributes to the growing literature on applicant reactions by investigating applicant reactions from a multiple stakeholder perspective. In addition to generic reactions, context-specific reactions were revealed, not considered by prior applicant reaction models. These generic and specific categories are of much interest as they can help policy makers to evaluate the current situation and act accordingly. Interestingly, 'Differentiation', a dimension that has not been covered by existing models, emerged as an important dimension of applicant reactions toward the military hiring process, both in the early recruitment and later selection phases.

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Table 1

Schematic Overview and Comparison of Applicant Reactions as Formulated by Gilliland (1993, 1995), Bauer et al. (2001), Fallon et al. (2002), and Deroos et al. (2004).

GILLILAND (1993)		BAUER et al. (2001)		FALLON et al. (2002)		DEROOS et al. (2004)	
FORMAL CHARACTERIS- TICS							
1	Job relatedness	1	Job relatedness (content / predictive)	1	Job relatedness	1	Objectivity / standardization
2	Administrative consistency	2	Consistency	2	Consistency of administration		
3	Opportunity to perform	3	Chance to perform	3	Unbiased assessment		
-		-		4	Chance to demonstrate potential		
				5	Perceived ease of faking	-	
4	Reconsideration opportunity	4	Reconsideration opportunity	-		2	Participation/voice
EXPLANATIONS							
5	Selection information	5	Information known	6	Advance information	3	Transparency of testing (content / procedure)
-		-				4	Job information
6	Honesty	6	Openness	7	Honesty and professionalism		
7	Feedback	7	Feedback	-		5	Feedback
INTERPERSONAL TREATMENT							
8	Interpersonal effectiveness	8	Treatment	8	User friendliness	6	Human treatment and respect for privacy
-		-		9	Guarantee privacy of information		
9	Propriety of questions	9	Propriety of questions	10	Invasion of privacy		
10	Two-way communication	10	Two-way communication	11	Preference for mode of administration	-	
-		-		12	Computer comfort		
				13	Overall applicant reactions (e.g., satisfaction)	-	

Table 2

Stress-1 and Proportion of Variance (R^2) of CO, PInP and CRS at 1 to 5 Dimensional Solutions

		Dimensions				
		1	2	3	4	5
CO	Stress-1	.409	.173	.093	.059	.057
	R^2	.833	.970	.991	.996	.997
PInP	Stress-1	.325	.089	.061	.053	.042
	R^2	.894	.992	.996	.997	.998
CRS	Stress-1	.448	.223	.147	.114	.094
	R^2	.799	.950	.978	.987	.991

Table 3

Comparison of Categorization of Items belonging to CO: Theory and Interviews versus MDS solution versus Additive Tree Solution

Theory and interviews		MDS solution		Additive tree solution	
Category	Items N°	Region	Items N°	Cluster	Items N°
1. Participation	48, 61, 142, 159, 163	1. Participation: Possibility to ask questions (.80)	48, 159, 163	1. Participation: Possibility to ask questions	48, 159, 163
2. Information	8, 24, 25, 43, 55, 70, 102, 113, 135, 155, 167, 168, 171, 172, 219, 220,	2. Documentation (.90)	145, 216	2. Documentation	145, 216
		3. Amount of information (.94)	102, 113, 167, 168, 171	3. Amount of information	102, 113, 167, 168, 171, 220
3. Realistic job previews	4, 85, 122, 174, 182, 183	4. Clarity of information (.95)	8, 24, 43, 55, 135, 172, 219, 220	4. Clarity of information	8, 24, 43, 55, 122, 135, 172, 219
		5. Realism of job information (.95)	25, 85, 174, 183	5. Realism of job information	25, 85, 174, 183
4. Professionalism of counselors	59, 97, 110, 154	6. Professionalism (.92)	14, 59, 97, 154	6. Professionalism	59, 97, 154
5. Interpersonal relations	12, 14, 67, 88, 117, 119, 120, 153, 187, 192	7. Good treatment (.95)	12, 67, 88, 117, 119, 153, 187, 192	7. Good treatment	12, 14, 88, 117, 119, 120, 153, 187, 192
6. Job choice	29, 57, 79, 108, 136, 147, 197, 207, 210	8. Job choice (.89)	57, 79, 108, 136, 147, 197, 207	8. Job choice	79, 108, 136, 147, 207
7. Accessibility and accommodation	82, 89, 90, 145, 146, 162, 189, 216	9. Accessibility and accommodation (.95)	89, 90, 146, 162, 189	9. Accessibility and accommodation	89, 90, 146, 162, 189
Total	58 Items		46 items		45 items

Note. CIM-indices are in brackets

Table 4

Schematic Overview of MDS-Regions: Applicant Reactions towards CO, PInP and CRS in the Belgian Military

CO	PInP	CRS
-	R1. Face validity	R1. Face validity
		R2. Unbiased assessment: Discrimination
R1. Participation: Possibility to ask questions	-	-
-	-	R3. Chance to demonstrate potential
		R4. Faking
		R5. Voice
R2. Documentation	R2. Selection information: Clarity of instructions *	R6. Advance information
R3. Information: amount	-	-
R4. Information: clarity	-	-
R5. Realism of job information	-	-
R6. Professionalism	-	R7. Professionalism
-	R3. Feedback	R8. Feedback
R7. Good treatment	-	R9. Respect for applicant
	-	R10. Fair treatment
-	R4. Treatment: Quiet test environment *	-
-		R11. Invasion of privacy
-	R5. Computer comfort	
-	R6. Perceived test ease *	R12. Test difficulty and high demands *
-	R7. Perceived time pressure *	R13. Organization: Dissatisfaction with waiting time / delays *
-	-	R14. Organization: Satisfaction with procedure *
-	-	R15. Welcoming of applicant *
-	-	R16. Medical-physical-examination *
R8. Job choice *	-	-
R9. Accessibility and accommodation *	-	-

Note. R = Region; Applicant reactions that revealed to be rather specific for the hiring process of the Belgian military are indicated with an asterix (*).

Figure 1. Two-dimensional MDS space of CO ($n = 58$ items)

APPENDIX

Sample items of Initial Categories of the Career Office (CO), Cognitive Ability Test (PInP) and Center for Recruitment and Selection (CRS)

CO		
1.	Participation	I have the opportunity to ask questions about career possibilities within the military.
2.	Information	The information I receive in the career office is sufficiently comprehensible.
3.	Realistic job previews	I get the impression the career counselor gives a realistic picture of the military.
4.	Professionalism of counselors	The career counselor gives evidence of professional skills to me.
5.	Interpersonal relations	The career counselor acts politely to me.
6.	Job choice	I am given sufficient time to rethink my choice for a particular job.
7.	Accessibility and accommodation	I find that the career office has good accessibility.
PInP		
1.	Face validity	I see a clear relationship between this test and the requirement to become a soldier.
2.	Selection information: Procedure	I am well informed about the upcoming selection procedure.
3.	Selection information: Clarity of test instructions	I find that the instructions of the test are clearly formulated.
4.	Feedback	I get sufficient feedback about my test result.
5.	Treatment: Test environment	I take the test in a quiet test environment.
6.	Computer comfort	I feel uncomfortable taking the test on a computer.
7.	Perceived test difficulty	I believe it is easy to pass the test.
CRS		
1.	Perceived predictive validity	I believe the tests are able to discriminate between suited and unsuited applicants.
2.	Consistency	I believe that applicants are treated differently according to their gender.
3.	Chance to demonstrate potential	During the selection, I get the opportunity to show my capabilities.
4.	Perceived ease of faking	The tests allow me to present a picture of myself that dissents from reality.
5.	Participation / voice	During the selection, I feel free at all time to do and say what is on my mind.
6.	Advance information	Before the selection begins, I am sufficiently informed on what is ahead of me.
7.	Competencies of personnel	The personnel working at the CRS is competent.
8.	Feedback	The feedback about my test results is comprehensible.
9.	Respectful treatment	The personnel working at the CRS treats me with respect.
10.	Fair / ethical treatment	The selection procedure is fair.
11.	Invasion of privacy	The personnel asks more private questions than is necessary for selection purposes.
12.	Test difficulty	According to me, the selection standards are too high.
13.	Timing of procedure	The waiting times between the selection tests are too long.
14.	Welcoming	The welcome at the CRS is heartily.
15.	Physical examinations	The ergometrical bike test is too easy as a physical test for the military.
16.	Medical examinations	I feel uncomfortable during the medical examination at the CRS.
17.	Group observations	During the group observations, I get the opportunity to show my capabilities.
18.	Ability and personality testing	I see a relationship between the personality questions and the job duties of a military.
19.	Interview	I feel inhibited by the balance of power between the interviewer and myself.

Note. All 221 items may be requested from the authors. The items refer to the *initial* categories generated based upon theory and interviews, not necessarily to *final* regions emerging from MDS analyses.