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**How the use of highly automated selection methods influences candidate's
experience in the first stages of recruitment: a review.**

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1. ABSTRACT

Recruitment processes are one of the core activities of the Human Resources teams in organisations, where both candidates and recruiters analyse the opposite party in the goal of understanding whether they are a good fit. Most of the existing literature and organisations themselves focus on the recruiters' side of selection, with their performance and well-being at the centre of attention for further improvement. However, considering that selection processes are within the organisation and candidates, it seems fair to include the latter's experiences and implement the processes according to these factors. In addition, with the increasing use of AI-mediated communication and international organisations in need for inclusive and distance-friendly selection methods, the use of highly automated tools for the recruitment process is growing. Keeping this in mind, a review of the existing literature was done, in order to find whether there were any dimensions of candidate's experience that are affected by the use of these tools. With the knowledge of frameworks regarding media richness, social presence, media attributes and others, six experience dimensions affected by the use of highly mediated-communication were found. The review on the existing literature showed that the use of these mediated tools influences: fairness perception, organisational attractiveness, opportunity to perform, procedural justice, privacy concerns and emotional creepiness. All dimensions could be either positively or negatively affected according to the level of digitalisation and whether these tools were used during pre-selection or the later stages of recruitment.

2. INTRODUCTION

Some individuals work to live, others live to work, either way, they need to go through a hiring process to fill in the position they applied for. Since working has become the centre of any adult's life (counting that a full-time worker spends 7 to 8 hours at their workplace daily), recruiting processes and work culture have gained importance and are changing according to social and scientific developments, one of which is technology. The scientific field that works on these transformations is called *Personnel Psychology*, which can be defined as the branch of Industrial and Organizational Psychology that deals with the selection, placement, training, promotion, evaluation, and counselling of employees (APA Dictionary of Psychology, 2023a). Personnel Psychology, and in particular the selection process, have been modified according to augmented realities and available digital methods. *Digital selection methods* can be defined as personnel selection methods that are mediated by digital communication technologies (Woods et al., 2020), such as social media, mobile media, the Internet, analytics, cloud, artificial intelligence, or algorithmic decision making (Vial, 2019). Automation can vary from lower degrees of digitalisation, such as uploading a CV on an online platform, to higher degrees of digitalisation, such as gamification¹ and video resumes or interviews. Using these methods is certainly convenient for the hiring organisation, which can reduce hiring costs, save time during the hiring process itself, and reduce the occurrence of potential biases. However, it is still unclear whether high degrees of digitalisation are positively perceived by candidates and how organisations can refine these methods in order to improve the overall candidate experience. Although research on the matter is increasing, the existing literature mainly focuses on the consequences of automated methods on organisations and hiring teams, with poorer information regarding candidates. While employee engagement and well-being are certainly important, candidate experience should be the centre of employer branding strategies, considering that during the hiring process both the organisation and the candidates work on selling themselves and study the other party to understand whether it is a good fit. Having more literature on the matter would not only help candidates experience better hiring processes, especially taking into account that usually the job search consists in several processes simultaneously, but also organisations find the best tools to use according to their targets. After all, a fair and well-designed hiring process should take into consideration which type

¹ According to the Cambridge Dictionary (2023a), *gamification* is “the practice of making activities more like games in order to make them more interesting or enjoyable.” In the hiring process context, gamification is used to improve candidate sourcing and actively engage with candidates in order to gain professional and personal information using a more innovative tool.

of employee the organisation is looking for and shape the used methods accordingly. Digital selection methods allow candidates to apply for positions abroad, to start their job search while still working and being able not to disclose their willingness to change work environment (for example, by not asking for days off to take face-to-face interviews), to save on travel costs and to simply have a broader choice in terms of possibilities to apply.

However, these advantages do not come without concerns. This review aims at understanding how the use of highly automated selection methods influences the candidates' experience during the first stages of the recruitment process. Following a review on interview structure and digital selection methods (from telephone interviews to asynchronous video interviews) that will be covered in chapter 3, and on the main theories and frameworks useful to better understand how mediated communication works (chapter 4), there will be a chapter dedicated to the used methodology. To answer this research question, a systematic review of the already existing literature was done in chapter 5. The literature mainly focused on the use of artificial intelligence in candidate screenings and aimed at finding common experience dimensions within the studies. As a result, six main experience dimensions were found and will be furthered analysed in chapter 6. The last chapter will focus on the limitations of the research question and existing literature and a conclusion of the review.

3. DIGITAL SELECTION MODELS OVERVIEW

This section illustrates how structured interviews work, and which are the adjustments recruiters might need to take according to the used tool for the selection step. Subsequently, there will be another subsection focusing on augmented selection processes and the use of artificial intelligence and machine learning during recruitment practices. Both sections aim at developing a better understanding on the topics related to the interview process, and thus how candidate experience may vary according to the used medium and organisational hiring strategy.

3.1 Interview structure, FTF, VC, AVI

In order to find the best fit in a batch of candidates from different backgrounds and with different skills, an organisation must go through a selection process. By *selection process* we mean a two-way interaction where applicants and organisations gather information about one another and react to this information while making employment decisions (Bauer et al., 1998). Selection processes' pipelines may vary according to what the company is looking for and which position is open to candidates. Candidates' "must haves" may vary based on the needs of the company, together with the team structure, work culture and objective key results (OKRs). Usually, the process will include at least one job interview, which is a meeting between a job applicant and a recruiter which aims at answering questions regarding a variety of topics, from past work experiences to ambitions and soft skills, to judge whether the applicant is suitable for the position. We are going through the direction where candidates themselves asks questions to the organisation ranging from position-related doubts to available benefits and work culture.

Job interviews can be divided into two main categories: unstructured and structured interviews. The former is characterised by flexibility, allowing an open discussion and letting the recruiter decide which questions to ask according to the outcome of the interview. The latter, on the other hand, is characterised by standardised questions (and occasionally even fixed wording) that will allow comparisons within candidates. A third category, the one of *semi-structured interviews*, can be found in the middle, where the interview has an already decided script, but it is possible to make adjustments according to the candidate's answers. Interview's topics may vary according to the selection stage candidates find themselves in and will usually present more specific questions or tasks in later pipeline stages.

Another main feature that may vary within interviews is the medium² used to interview the candidate. It is possible to distinguish between *face-to-face* (FTF) interviews and *videoconference* (VC) interviews, which can also be done asynchronously (AVIs). FTF interviews are conducted in person and enable both recruiter and participant to observe non-verbal cues and allow for physical contact (such as handshaking). It comes as a consequence that with FTF interviews, the candidate has the possibility to visit the headquarter of the organisation and thus have additional insights on how working in that specific environment can be. VC interviews are conducted using a videoconference medium such as Skype or Zoom. Differently from FTF interviews, most VC interviews restrict the participants' ability to observe non-verbal behaviour (Chapman and Rowe 2001; Skinkle and McLeod 1995; Webster 1997). In fact, the interlocutors are usually showed from the mid-chest up. In addition, some social cues such as eye-contact or turn taking might be difficult to use, considering the possibility to face connection problems or audio delays and that it is usually not possible to speak from both channels at the same time. Both candidates and recruiters have to modify their communication according to these technology-imposed difficulties. On a more extreme level, AVIs completely delete the human contact, relying on artificial intelligence only. In this case interviewees record themselves answering specific questions via a designated app or online platform that will record their answer. AVIs' outcome can then be judged by either a recruiter or with the use of artificial intelligence, and its biggest advantage is that the recordings can be rewatched and evaluated by different specialists in different moments. On a less bright note, this last type of interview lacks the direct human involvement, and thus the possibility to have a two-way communication, involving feedback, the possibility to ask questions to the other party, and simply human warmth. As a consequence, it is only possible to follow highly structured interview questions, with fixed reply-times and schedules and a limited amount of tries per answer. It is worth mentioning that the strong advantage of both VC interviews and AVIs is that these tools allow international organisations to recruit a larger variety of candidates, considering the possibility to interview candidates found off-site, and are without any doubt less time-consuming for both candidates and interviewers. However, due to the just said perks and downsides, organisations are still sceptical about using highly automated video interviews, and it is still not clear whether participants have positive reactions towards this type of mediated communication.

² It is possible to define a *medium* as any means or agency through which messages are transmitted or information is diffused (APA dictionary, 2023b).

3.2 Augmented Selection Processes

Artificial Intelligence (AI) is a subdiscipline of computer science that aims to produce programs that simulate human intelligence (APA Dictionary, 2023c). AI can be mistakenly seen only as robotics and high-level technology, however it is now part of our everyday life. It is possible to find AI in digital assistant help users such as Siri or Alexa, smart input keyboards, facial recognition technologies, video games or even online advertisements. One of the subfields of AI is *Machine Learning* (ML), which is the process of computers changing the way they carry out tasks by learning from new data, without a human being needing to give instructions in the form of a program (Cambridge Dictionary, 2023b). In hiring and recruitment, AI/ML can fill functions such as designing job descriptions, marketing vacancies to potential candidates, providing technical support through chat bots, and streamlining selection decisions (Albert, 2019; Black & van Esch, 2020). It is possible to merge AI and ML together with human decision-makers during any stage of recruitment, switching from low to high levels of digitalisation. The use of augmented selection processes and digital selection methods is without any doubt beneficial for the organisation, which can decide what features to automatise and according to which criteria. These tools can vary from automated talent pipelines, which help recruiters move candidates from one stage to another, to automated text messages or e-mails decided in advance by the use of pre-programmed scripts or cognitive ability and personality tests. All these features speed up the hiring process and enable recruiters to consider a wider number of candidates than if they did not have the possibility to use any type of automation. However, while it is now common and not surprising that organisations might use online platforms to upload CVs or cover letters, higher levels of digitalisation are not welcomed by all types of candidates. In fact, from an organisational point of view, the more ML is used, the less occurrence of biases there will be and the process itself should be more reliable considering the high level of standardisation. Of course, seeing the lack of understanding of candidates' perceptions of highly automated processes, using a high level of AI/ML is not necessarily the best solution. While these tools might be the only option for corporates with many open job positions and no less candidates and considering that the use of AI shows the innovativeness of an organisation, the lack of human contact might be negatively experienced by candidates.

4. USEFUL THEORIES AND FRAMEWORKS

This chapter is an overview of the main theories regarding communication and the effects of mediated communication in individuals and how they can be applied to the organisational context. In addition, it presents an overview of useful frameworks to comprehend how candidates' reactions and impressions towards an organisation may vary according to different factors in technology-enhanced interviews.

4.1 Media Richness Theory

The Media Richness Theory, also called Information Richness Theory, by Daft and Lengel, describes how effective a given medium is in reproducing the information through communication. *Media Richness* is defined as the information-carrying capacity of data (Daft and Lengel, 1986); in other words, communication media vary the extent to which they enable users to communicate, and a rich medium facilitates rapid understanding. The main difference between rich and lean media is the amount of information a medium could convey to change the receiver's understanding within a time interval (Calefato and Lanubile, 2010). The richness of a certain media can be measured according to four main criteria: conveyance of multiple cues, establishment of a personal focus, immediacy of feedback and variety of language. To be more specific, for a medium to be rich it is important for social cues to be available, to express personal feelings, to have a two-way communication with the possibility to ask for feedback, and to have different ranges of language. In addition, the Media Richness Theory suggests that *uncertainty* and *equivocality* influence information processing. The former is the difference between the amount of information required to perform a task and the amount of information already possessed (Galbraith et al., 1973). In a situation of uncertainty, an individual will try to acquire data and seek the right answers, and thus it is required to have reports and lean media such as e-mails in order to reduce this sense of doubt. The latter is the existence of multiple and conflicting interpretations about a situation (Daft and Lengel, 1987). Differently from uncertainty, equivocality deals with the quality of the available information, and it can be reduced by asking the right questions. As a consequence, the medium with the best channel to reduce this sense of ambiguity is FTF or VC communication. When applying the theory in the recruitment context and job interviews, FTF interactions are the communication medium with the highest level of media richness, followed by videoconferences. Although videoconferences give the opportunity to see the other interlocutor, body language is restricted, and verbal communication may be delayed by connection problems. In addition, any type of asynchronous communication has a weak media richness level since it lacks all the four main factors that make the communication rich.

4.2 Social Presence Theory

Social Presence Theory argues that media differ in the ability to convey the psychological perception that other people are physically present, due to the different ability of media to transmit visual and verbal cues (e.g., physical distance, gaze, postures, facial expressions, voice intonation) (Short et al., 1976). This implies that there are some media which have more social presence than others. For example, with the use of FTF interactions or videoconferences, the interlocutors will perceive stronger social presence than with the use of telephone or e-mail interactions. Consequently, higher social presence media are associated with higher levels of engagement and, in general, more positive communication outcomes such as mutual attraction, trust, and enjoyment (Lee et al., 2006). Thus, it is possible to translate this theory in the organisational context, keeping into consideration that as regards selection processes, the communication media that grant more social presence are either FTF interviews or VC interviews. In fact, while with FTF interviews it comes as no surprise that both the interlocutors will perceive the social presence of the other party, the visual inputs given by the VC interview will convey the same type of social presence for both parties.

4.3 Instrumental Symbolic Framework

The Instrumental Symbolic Framework introduced by Lievens and Highhouse in 2003 analyses how early impressions of a certain organisation can be predictors of applicant's attraction during the recruitment process. According to this framework, applicants form an image of an organization as an employer based on two types of information conveyed to them during recruitment and selection: instrumental characteristics and symbolic meanings (Folger et al., 2022). *Instrumental characteristics* are tangible and concrete information that describe what a certain organisation can offer or not. For example, these characteristics can be salary, benefits, flexible working hours or the company's location. On the other hand, *symbolic meanings* are abstract characteristics that applicants associate with the organisation. One of the most important symbolic meanings nowadays can be seen in how innovative³ an organisation is. This type of meaning can be associated on the basis of services, employees, social information and organisational advertisement. By keeping this framework into consideration, organisations should work on their attractiveness and be aware of how important candidate's impressions are and consider which factors they want candidates to focus on during the first stages of recruitment.

³ *Innovativeness* is an organization's capability to continuously reinvent its systems, products, and services and the key to organizational success and long-term survival (Moss et al., 2015).

4.4 Potosky's Framework of Media Attributes

Denise Potosky developed a framework, called of Media Attributes, according to which media communication can vary depending on four attributes: social bandwidth, interactivity, transparency and surveillance. *Social bandwidth* describes the extent to which a medium allows to send and receive verbal and nonverbal information (Potosky, 2008). A medium has a high level of social bandwidth when it allows the exchange of different social signals. For example, when having a FTF communication or using videoconference as a medium, social signals are detected by observing the other interlocutor and their facial expressions or tone of voice. On the other hand, while it is still possible to detect the used tone when reading an e-mail, the medium presents a lower degree of social bandwidth. *Interactivity* defines the extent of interaction that is possible during an interview (Melchers et al., 2021). Highly interactive media enable direct interaction and exchange of questions. In this case, highly automated media such as AVIs will lead to a lower interactivity than with synchronous ones considering that it is not possible to communicate with the other party. *Transparency* refers to the fact that interlocutors are aware of the use of mediated-communication and this medium does not interfere with communication. In the case of transparency, the more automated the medium, the less transparent communication, however it is still possible to lead transparent communication if the interlocutor does not have any technical problems. Lastly, *surveillance* relates to the extent to which an interaction appears to be observable by a third party (Langer et al., 2020). While the other three attributes are still beneficial when using highly automated media, surveillance has a negative impact on the interlocutor. In fact, even when the participant is aware that the interview will be recorded, they might have privacy concerns and doubts regarding who will have access to the recording.

4.5 Gilliland's Procedural Justice Rules

According to Gilliland and the Organisational Justice Theory, *procedural justice* refers to the perceived fairness of the procedures or methods used in making decisions (Folger & Greenberg, 1985). In order to measure if a selection process is perceived as fair by the applicants, Gilliland introduces ten rules at the basis of candidate's perception. These are the following: *job relatedness*, which is the degree to which a candidate is tested on content that is relevant to the job position; *opportunity to perform*, which is the extent to which applicants can demonstrate their knowledge and abilities during the selection process; *reconsideration opportunity*, which is the chance to revise the outcome and results of the testing and, occasionally, to re-test; *administration consistency*, which refers to the consistency and standardisation if the selection methods across candidates; providing *feedback* in a consistent and timely manner; sharing the *selection information* with the candidates;

being *honest* and candid towards the full process when communicating with the candidates; *interpersonal effectiveness*, meaning that a candidate is treated with respect; *two-way communication*, giving the possibility for the candidate to ask questions to the recruiter(s); and *propriety of questions*, which refers to the extent to which candidates are asked appropriate questions. If one or more of these rules are not followed during the selection stages, then the candidate's perception of overall fairness will most likely be impaired and the selection process will be seen as lacking procedural justice.

5. METHODOLOGY

This chapter describes the steps done to find available information regarding the review's question on the existing literature and to have a deeper general understanding of mediated communication. Articles that could be relevant to answer the research question on changes on the candidate experience with the use of highly automated job interviews were searched in the Scopus database, with the further use of Google Scholar. The first step of the research involved finding the suitable keywords to insert in the database. Keeping in mind the research question, the following keywords were used: *video* matched with *job interview*, *job presentation*, and *job candidacy* (which gave no results), *asynchronous* and *automated* together with *job interview* and *video interview*. The keyword *job recruitment* combined with *video interview* was later added. In addition, the following search filters were applied to each keyword: for the source to be completely written in English, to be considered linked to the field of Psychology, and to be either an article, a book chapter, or a review (thus excluding both thesis and full books). After finding a total amount of 123 results with the use of the seven different keywords, 31 articles were identified by reading their titles, of which 8 were duplicates (and thus analysed only once). The discarded articles can be divided in four macro categories: COVID19- related, concerning candidates with the Autism Spectrum, regarding trainings and education, and use of mediated communication in emergency situations.

The second step consisted in reading the articles' abstracts and deciding whether they would fit into the research question. The decision was mainly based on the research question and findings rather than used methodologies. Of the 23 articles identified from the database, 11 articles were excluded, leaving 12 articles to be fit for the research purpose. This time, the exclusion criteria consisted in taking into consideration the interviewer's experience (and not the candidate's), being able to predict job performance given the interview's outcome, interview performance, avoiding discriminations from the interviewer's side, and assessing candidates via written tests.

The third step was to tract forward and backward the selected articles, by checking both each article's references on Scopus and its citations on Google Scholar. This last research gave the result of 12 relevant articles from the references, and 10 articles that mention the results from Scopus. By the end of this last step, by summing the articles from Scopus, their bibliography and the citations from Google Scholar, a total amount of 34 relevant articles was found.

The fourth step consisted in reading the full text of the selected articles. Of the starting 34 articles, 30 were found using online resources. Consequently, the articles were read and examined finding: the main purpose of the study, the methodology and framework used, hypothesis and/or research questions, independent and dependent variables, the results, and which variables were in line

with the research question. It is worth mentioning that a total of 9 articles were excluded from the analysis given that: the research topics were too specific or unrelated to the aim of this thesis, or they were overview of already present literature (and thus useful for a general understanding of the subject but not for the full text analysis). At first, the three detected dimension to look for were: which candidates' experiences were analysed in the paper, what could have been common concerns over candidates regarding the use of AI systems, and which assessment methods candidates would prefer to use and why. Once the analysis of the 21 remaining articles was completed, it was found that the articles mainly covered the first dimension. Therefore, the candidate experience dimensions were further analysed and 28 of them were found, of which 6 are the more frequent: fairness, organisational attractiveness, opportunity to perform, procedural justice, privacy concern and emotional creepiness. Ergo, these six will be further analysed to answer the research question regarding candidate experience with the use of asynchronous video interviews. **Figure 1** provides a flow diagram summarising the steps taken during the systematic review.

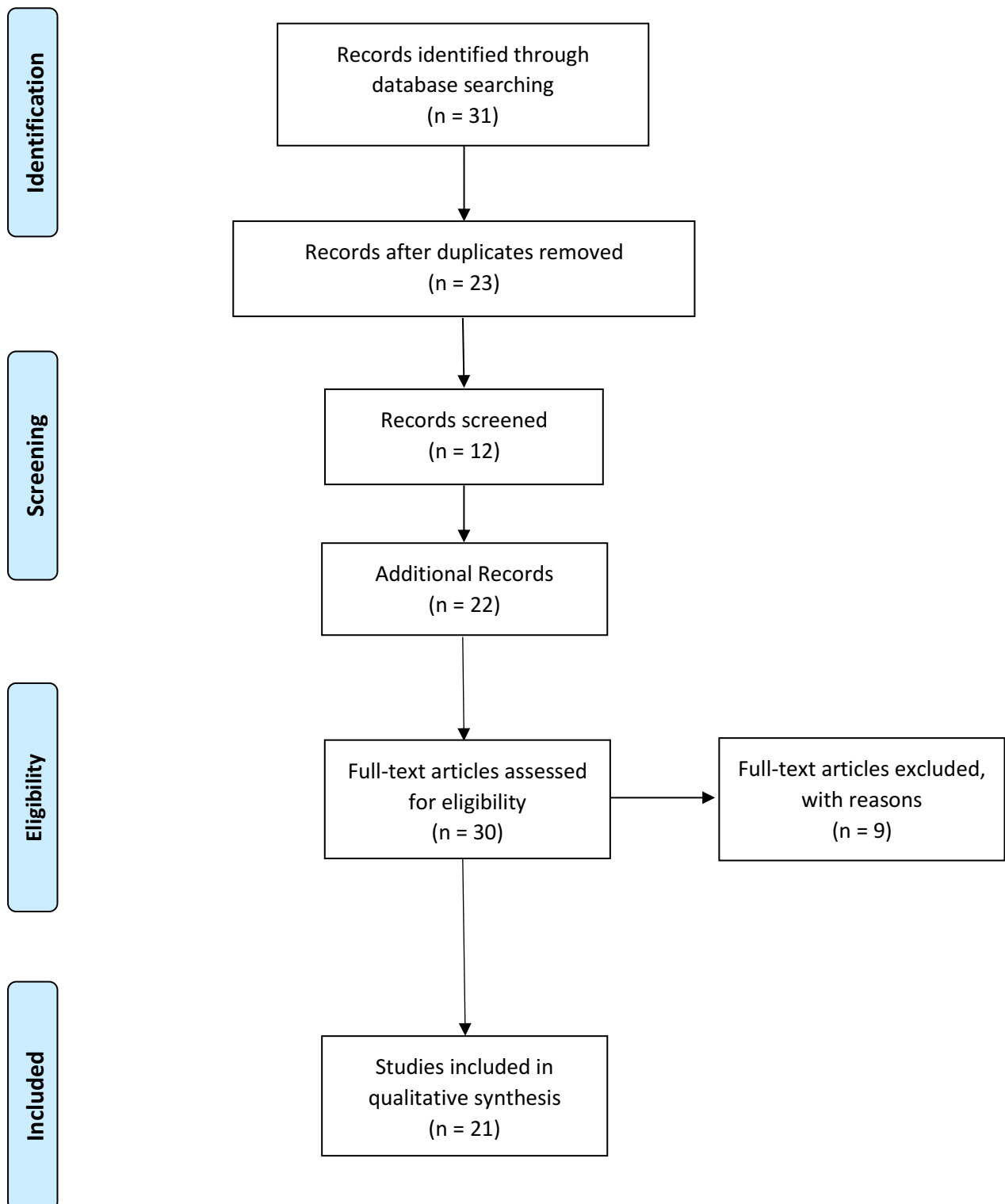


Figure 1. Customised PRISMA flow diagram of search steps (see Moher, Liberati, Tetzlaff and Altman, The PRISMA Group, 2009, for the original).

6. SYSTEMATIC REVIEW RESULTS

During the literature review, several candidate experience dimensions were found. By dimensions we refer to the areas of the person's understanding that can be influenced during the selection stage within recruitment processes. In example, in certain articles the correlation between personality traits such as neuroticism and extraversion and a positive or negative candidate experience was examined. In other articles, variables such as impression management, interview motivation and job relatedness were analysed. A review of the macro-categories studied in the literature was done, and 28 studied dimensions were found, and it was observed that 6 of them were more frequent than the others. Thus, those six dimensions are the ones that will be further analysed in the review of the results.

6.1 Fairness Dimension

By *perceived fairness*, we refer to the perceived rightfulness of the outcomes of a certain process (which in this case is the selection of a candidate). Meaning that the ability of a candidate is judged based on their actual skills, and it is not influenced by personal interests or feelings of the recruiter. During candidates' selection, perceived fairness can be influenced by the amount of knowledge the recruiter has about the job position, if they are influenced by biased stereotypes on nationality or gender.

Linked to this aspect, according to the study held by Wesche et al. (2021) on the expectations of job-seekers regarding AI selection, it was found that candidates considered the use of highly mediated selection methods to increase the perceived fairness through the reduction of nepotism and favoritism. However, on a more extreme level of asynchronous selection methods, it was found that participants found highly-automated interview methods particularly unfair. The explanation of this result could be that participants might have interpreted that a computer gains decision power over a human being, which may be seen as less fair than a person being in charge of conducting high-stake interviews and making high-stake selection decisions (Binns et al., 2018; Lee, 2018; Ötting & Maier, 2018).

The reviewed articles showed a variety of results, where, on some occasions, participants' perception of fairness would remain unchanged with the use of automated methods, while in others there was a positive or negative perception of that sort of selection techniques. These opposite perceptions within studies could be the reflection of the fact that participants were not truly applying for a job position, thus a number of participants were students and, if they were not, they did know it was not a real selection process.

6.2 Organisational Attractiveness Dimension

Organisational attractiveness refers to the extent to which a certain organisation is perceived to be the best fit for both job seekers and current workers of that organisation. Organisational attractiveness is the combination of instrumental characteristics and symbolic meanings described in chapter 4. There are several aspects that can influence the attractiveness of a given organisation, of which the economic power, work culture and innovativeness can be considered as the most important in terms of what candidates and workers expect to find in a company. Selection methods are one of the first moments (if not the very first one) candidates meet the organisation and the HR team, thus it is crucial for the organisation to adopt methods that will positively influence candidates' perception of its attractiveness. Even though candidates will most likely check the organisation's website and media profiles before applying, and thus have a general idea of whether that organisation is the right place for them, selection procedures might either change in negative that feeling, or increase it. Taking this into consideration, the use of FTF or VC interviews (or on a more extreme case, AVIs) could change the extent to which a candidate finds the organisation attractive. One of the main aspects of the use of mediated communication in organisations is their level of innovativeness (which was analysed in chapter 4), which can be considered to be a positive aspect of an adapting organisation, or a negative one in case the candidates/workers would prefer not to follow new technologies.

It was found that high degree of digitalisation positively influences organisational attractiveness when present in the first stages of recruitment (Köchling et al., 2022; Folger et al., 2022; Langer et al., 2020). To be more precise, it was confirmed that the use of AI-supported methods is positively linked with innovativeness and organisational attractiveness during the application and screening stages, but negatively linked to the use during assessment stages. This perception is likely to be linked to the lack of human contact characterising asynchronous communication, which is a tool for the first stages (when a bigger skimming of candidates is needed) but is found as negative in the later stages, where candidates would need to assess the organisation themselves and would prefer to have a two-way communication with recruiters or their future team.

Other studies analysed in the literature review found that the use of digital interviews had a negative effect on organisational attractiveness. It was found by Proost et al. (2021) and Wesche et al. (2021) that the use of semi-automated or FTF interviews would lead to a higher organisational attractiveness rather than the use of fully automated or video interviews. While the fairness of procedure was not influenced by the media used, it was found that participants saw fewer opportunities to show their potential (Proost et al., 2021) when automated interviews were used, thus this aspect was linked to organisational attractiveness.

6.3 Opportunity to Perform Dimension

Opportunity to perform is the extent to which participants are given the chance show their pertinent abilities during selection testing. It is one of the ten dimensions of Gilliland's model of Organisational Procedural Justice, which was discussed in chapter 5. The use of FTF or mediated communication influences the perceived opportunity to perform, where candidates will most likely feel that they have the right amount of chance to show their skills during FTF interviews, that might be characterised by unstructured questions and give space to the candidates' thoughts and experiences. On the other hand, mediated communication and structured interviews are likely to give the candidate less opportunity to prove themselves considering the lack of space for additional information by the candidate.

Research confirms this aspect, by showing that applicants in the face-to-face interview condition expected significantly more chances to demonstrate potential compared to applicants in the video interview condition (Proost et al., 2021). On the other hand, it was found that, similar to the organisational attractiveness dimension, candidates do not feel restricted by the use of AI-support during preselection or the first stages of recruitment. Findings from Köchling et al. (2022) showed that applicants seem to accept a certain degree of digitalisation in the first stages of selection process, however the use of highly digitalised media could be a restraint if used in later stages of recruitment, thus it would decrease opportunity to perform and general candidate's satisfaction. It should be noted that the first study (Proost et al., 2021) was based on the use of vignettes and that the sample was made of business administration students only, and that the second study (Köchling et al., 2022) presents an older sample (45.6 years in average) and was conducted via the use of mock interviews.

6.4 Procedural Justice Dimension

The concept of Procedural Justice was first introduced by J. Thibaut and L. Walker in 1975. They examined the influence of a third-party of control over decision making process from a legal perspective and found that procedural justice is positively affected by the opportunity to influence the process. Gilliland then analysed procedural justice from an organisational point of view (see chapter 4). Procedural justice might at first seem the same as perceived fairness considering that the two deal with perception of the outcomes of a certain examination (in this case the job interview). The former is influenced by the perceived fairness of the methods used to assess the outcome, while the latter deals with the outcome of the selection process. The main difference is that procedural justice analyses the full process and whether it was neutral, if candidates are given the voice they deserve, its test validity and consistency.

The use of AI-mediated selection methods can clearly influence procedural justice perception. Sears et al. (2013) found that the use of VC interviews negatively influences procedural justice compared to FTF interviews due to the lack of chance to perform, job-relatedness and selection information. In other words, the lack of two-way communication and high levels of standardisation increase the feeling of not being assessed using the right tools.

From a more specific point of view, Folger et al. (2022) found that the use of digital selection methods does negatively influence procedural justice, however only during the later stages of recruitment. In fact, during the application and screening stages, candidates are not affected by highly automated methods, while the contrary happens during the interview stage.

6.5 Privacy Concern Dimension

When talking about privacy concerns in selection process we refer to the candidates' worry that their personal information and collected data during recruitment might be leaked or not kept entirely confidential by the recruiters. With the use of non-digitalised methods, it is almost impossible to mistakenly share candidates' information with other teams, however when mediated communication and media are used, candidates might be concerned that other people besides the recruitment team can see their profile. Potosky's aspect of surveillance (described in chapter 4) and the fact that a third party might watch and judge the candidates' performance can be observed in the use of digital interviews, and especially asynchronous ones. To be more precise, when a candidate is interviewed FTF, they can be sure only the interviewers are listening to the meeting, however, with the use of AI-mediated interviews, and especially AVIs, candidates cannot know who will see the recordings besides the recruiters. The worry that another team or external person might re-watch the recordings or even be present in the room when HR is deciding the outcome of the selection step might stand in the way of the candidates' performance and might create an unpleasant selection process.

This aspect of AI-supported methods was confirmed by research (Langer et al., 2020; Langer et al., 2019; Langer et al., 2017), which showed that participants reported more privacy concerns in digital methods and worry about who could see the recordings and materials. This aspect would then negatively influence the general candidate's experience together with aspects such as organisational attractiveness, emotional creepiness and opportunity to perform.

On the opposite side, it was found by Langer et al. (2020) that when a human rater condition or an automatic evaluation were used to evaluate the interview's outcome, participants were more concerned about the former. This was explained by the fact that if a machine would have listened to the recordings, that would have been the only method of judgment for the outcome of the interview. However, on the other hand, if there was to be a human rater condition, participants would have not

known for sure who was going to listen to the recordings. This different perception might be due to social reasons and perceptions, where human's judgment might be perceived as more important than AI and probably in case of a negative outcome, it could be perceived as personal.

6.6 Emotional Creepiness Dimension

Emotional creepiness can be defined as a potentially negative emotional response to the perception of ambiguity towards (in this case) technology. In the case of AI-mediated communication, emotional creepiness happens when the technology exhibits human-like behaviours, that may cause a feeling of dissonance. The feeling of someone else watching what the person is doing might make them uncomfortable, and not knowing who will use the stored data might increase this sense of ambiguity. During recruitment processes, when AVIs are used, it is possible that people might feel bizarre not talking directly to a person but using an electronic device as a medium. The creepiness might arise from the feeling of talking to one's own self when recording the answers to interview questions. The lack of human contact and the possibility to rewatch the videos could result in feelings of insecurity and uncertainty regarding who will watch the videos and which criteria will be used to assess them. As for the other dimensions, it is possible that emotional creepiness will influence candidate's sense of the other dimensions, mainly of organisational attractiveness and privacy concern.

The analysed research found that digital interviews do increase the perception of emotional creepiness (Langer et al., 2017), however this might vary according to the selection process candidates find themselves in. In fact, according to Köchling et al. (2022), while AI-support in preselection did not influence emotional creepiness, the use of AI-support in later stages did. This might result from the fact that candidates are getting used to being assessed via ML methods at the beginning of their recruitment process, and there is a general understanding that these methods are useful in case the position is attractive to candidates (thus, there are more applications). However, in later stages candidates rightfully want to meet the teams and engage in two-ways communication. The use of AI-support during later stages of recruitment results in emotional creepiness because in those stages candidates would like to deepen their knowledge about the organisation and the use of AI-support might prevent them from doing so.

7. LIMITATIONS, DISCUSSION AND CONCLUSION

This review presents limitations regarding the methodology used to find sources to answer the research question. The used software was Scopus, which surely represents a wide collection of existing literature, however a deeper use of Google Scholar and other search platforms would have led without any doubts to a larger amount of available literature. In fact, Google Scholar was only used as an aid to find the PDFs of the articles already selected from Scopus. It is also important to take into consideration that it was not possible to find all the PDF files given that the own student account does not have access to some scientific journals. Consequently, a more detailed and wider literature would have probably constituted a more precise review and the possibility to deeper generalise the results. Finally, as shown by the little number of articles found during the first step of this review (which was looking for articles by using specific keywords on Scopus), the existing literature on the topic is unfortunately quite reduced.

Another limitation is linked to the sources examined, and to be more specific, regarding the sampling. Considering that not all organisations own information about candidate's experience, and the ones which focus on implementing their recruitment tend not to share their collected data, research is forced to form their sampling from student population. While some of the reviewed studies were characterised by samples of work seekers, most of the research is conducted within universities, thus students constitute the samples. In addition, as for many other research fields in Psychology, those students are likely to study in fields similar to what the given research is about, leading to poor possibility to generalise the results to the rest of the population (meaning job seekers, especially people that are not the same age as an average university student). As an example, in the study held by Wesche et al. on perceptions of pre-process procedures, all participants were German-speakers, and most of them were females, thus these results are difficult to generalise to the standard population. A similar sample can be found in Langer et al. (2020) study, where participants are German student, of which 82% of the sample is composed by Psychology students.

On the same line as the previous limitation, the fact that participants are not actual candidates, and thus have to imagine being in a certain situation (interview), or take part of mock tests, represents another limitation. As an example, some articles' methodology consisted in online mock interviews (Langer et al. 2020; Brenner et al., 2016; Köchling et al., 2022), however others were based on surveys on perceptions (Hiemstra et al., 2019) or questionnaires (Basch et al., 2022; Honkaniemi et al., 2011). As it might seem logical, even though these procedures are valid, they are not the best tool, which would be to actually test candidates before or after interviews. We cannot be sure tested participants would act in the same way in case they were in a real-life interview, thus this aspect negatively impacts the possibility to generalise the results. Being the study setting not the same as the

interview one, and given that there might be a lack of anxiety (which is usually present before and during a job interview), this hypothetical situation will more likely not mirror the real mental state of candidates during recruitment.

Finally, as the chapter on results shows, articles had different (and in some cases opposing) findings on similar research questions. While this is possible in research and it is not a limitation itself, the reasons for these differences could be linked to the previous limitations and could be especially related to the sampling issue and the imagination component of the experiments. It should also be taken into consideration that the used papers were published between 1998 and 2022, meaning that participants within studies could have probably had different types mediated communication in their everyday life, and that the results are from studies from before and after the Covid-19 pandemic (which certainly normalised the use of AI-mediated communication). Furthermore, the different papers analysed the candidate's dimensions using different scales and methods, and it might be the case that with the use of the same methodology, results would be more alike. It is also worth mentioning that the analysed dimensions could have been studied from a different perspective, and thus, even though the variables had the equivalent names through the literature, meanings of the dimensions could have been different.

Taking into consideration these limitations, it is clear that the matter of highly automated selection methods is still not enough taken into consideration by researchers. In addition, it is more common for literature to focus on the organisational point of view and HR specialists' preferences, rather than candidates' perceptions. Additional research on the topic might be useful for private organisations and possible interventions in the recruitment pipeline. To be more specific, in agreement with Hiemstra et al. (2019), it would be useful for future research to focus on which are the aspects of highly mediated communication and interviews that negatively or positively influence candidate's perception. In addition, during a real selection process, used instruments are often mixed and combined together, thus the use of only one selection instrument alone for research purposes might be limiting in the generalisation of the results to the job-seeker population.

This review introduces some of the key dimensions of candidate's experience during the recruitment process, and especially with the use of highly-mediated methods and examines the frameworks and theories that can explain these processes. Overall, it is still not possible to generalise the results found on the existing literature given their limitations and scarcity of sources. What can be done is for organisations to take into consideration these results when shaping their recruitment processes and try to give candidates the most professional and serene experience possible. However, it is clear that more research has to be done, and especially it should focus on more specific aspects of candidate's perceptions and find samples that can actually represent the general population.

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