



This is the accepted manuscript (AM)/author accepted manuscript (AAM) of the article

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How to cite this publication

Please cite the final published version:

Frandsen, K., & Landgrebe, K. (2022). Video Assistant Referee in a Small-Nation Context: Intensified Mediatization. *Communication and Sport*, 10(5), 811–829.
<https://doi.org/10.1177/21674795221090425>

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VAR in a small-nation context: intensified mediatization

In 2016 the International Football Association Board (IFAB) officially launched a series of experiments in the use of visual footage to support refereeing in men's elite football. The video assistant referee system—VAR—has now been taken into use permanently across a range of European and national football leagues (Armenteros, Benitez & Betancor, 2020). The system is one among a growing number of digital technologies introduced during recent decades across a range of professional sports to avoid errors and to secure fairness and transparency in officiating games (Armenteros, Benitez & Betancor, 2020; Collins, 2010; Dyer, 2015; Nafziger, 2004; Stoney & Fletcher, 2020). The introduction of “decision-making technology” (Dyer, 2015, p. 7) in football has been controversial, and caused intense attention and debate. But the VAR system has also been described as “one of the most important innovations in the world of football” (Armenteros, 2020, p. 221) and its implementation as a “revolutionary process” (Simón, 2020, p. 3). These debates are prompted by the belief that the use of VAR represents a challenge to the basic structures, practices, and values of football—the idea of flow in the game, for instance, and the idea that football is a universal game, played the same way across the globe. There are also more concrete concerns, given that VAR systems require access to advanced technology and funding to cover the expense of implementing and driving them (Crespo, 2020). Some national associations, like the German Bundesliga and the Italian Serie A, which have these resources have sought influence by taking a leading role on what is expected to become an integrated element in international elite football (Kolbinger, 2020; Simón, 2020). For others, the scaling and financing of VAR systems are a hurdle that has caused some national associations to

adopt a more hesitant, wait-and-see attitude. The implementation of VAR therefore raises concerns about ideologies of equality in the world of football.

This article explores how the processes of change set off in football by VAR can be seen in a small-nation context as a particular case of intensified mediatization. Using the Danish Superliga as our object of analysis, we illustrate how processes of mediatization are influenced by significant and historically founded hegemonic structures of power and inequality in the European football and media systems. Our analysis builds on an understanding of mediatization as a nonlinear process that involves decisive breaks, points at which crucial negotiations of autonomy take place. We argue that the VAR system in general illustrates an intensified level of mediatization: while mediatization was previously shaped by football's relationship with television, football's dependence on media has now reached a new functional level. All processes of mediatization involve negotiations of values, roles, and practices among agents in the field in question; and ultimately, all imply a decrease both in individual and in institutional autonomy. We use André Jansson's critical approach to discuss how the implementation of VAR marks a qualitative shift in football in introducing a new type of reliance on media for the playing of the game itself, and thereby initiating such negotiations among core agents in the game. We draw on data from an exploratory qualitative study of the implementation of VAR in the Danish Superliga. This small North European league is characterized by internal inequality against a general background of modest economic resources—especially compared to the big national leagues and organizations which have taken the international lead on implementing the system.

Approaches to the use of technology in officiating sports: the literature

The VAR system is one in a series of recent additions of officiating aids in sport whose implementation has been widely studied. Previous studies have described the introduction

and use of these aids in several sports (Benitez, Stepanian & López, 2020). They have documented how decision-aid technologies (including VAR) affect tactics and structures in the game (Carlos, Ezequel & Anton, 2019; McLoughlin & Dawson, 2017), as well as key actors' performances and behavior, including that of the players (McLoughlin & Dawson, 2017; Leveaux, 2010), fans (Stoney & Fletcher, 2020; Winard & Fergusson, 2017), referees, and umpires (Dawson, Massey & Downward, 2020; Nevill et al., 2017; Spitz et al., 2020)—not to mention the psychological impact of these technologies on referees (Baldwin, 2014; De la Vega & Fuentes, 2020; Samuel et al., 2020). Other studies have approached the phenomenon from a philosophical and judicial standpoint, focusing on the inherent features of game play and officiating and discussing the impact of technology on referees' "ontological authority" (Collins, 2010, p. 136) to define the official – but endlessly disputed - truth about what has happened in a game, as well as on the ability to function and to secure fairness and justice (Collins, 2010; Nlandu, 2012; Svantesson, 2014; Zglinski 2020).

Many studies have considered mediating elements solely as technological tools, analyzing their role from a sports-functional perspective. As a consequence, the particular role of media and their historical impact on sports institutions and technologies have in most cases not been specified. However, in the case of VAR, this approach is not sufficient, because this 'tool' uses mediations produced for television broadcasts. Armenteros, Benitez and Betancor (2020) acknowledge that this tool is biased, offering descriptions of television's uses of replay in broadcasts from football and other sports, and focusing on the production of the mediations used in the system. Interestingly, Benitez (2020) focuses on the discrepancies between the institutional needs of referees and the broadcasters who produce the visual footage to be used in the system (Benitez, 2020). Garcia & Cid (2020) speculate that the referee working with VAR will come to acquire a more central role in broadcast television's narrative of the game; they predict that VAR will change the narrative of sport and make it

less emotional as the use of technology will make decisions more rational. Finally, Cid & Garcia (2020) describe discussions of the digital mobile audio-communication system that will be used among the extended group of referees: the VAR system requires a larger officiating group using mediated communication (both visual footage and mobile audio communication) as part of a more complex decision process involving the integration of new skills. These modifications not only raise questions regarding transparency, but will also change patterns of behavior and social interaction on and off the field. Fletcher & Stoney (2020) take a mediatization perspective in their analysis of fans' attitudes to the deployment of television match officials (TMOs) in rugby, which, like the VAR system in football, is based on visual footage from television broadcasts. They point to the implicit connections between technological advancement in broadcast television, the commercialization of sport, and the use of decision-aid technologies. They illustrate how the TMO system makes the rugby fans' experience in the stadia an increasingly mediatized, yet ambivalent experience, characterized by new demand from fans for access to further information yet, simultaneously, concerns over the authority of the referee relative to the power of television directors. Not least, they identify a dilemma also present in football—the tension between the desire for correct decisions and the protection of a “free-flowing, pacey game” (Fletcher & Stoney, 2020, p. 18).

Our analysis of VAR in football takes a slightly different perspective because it focuses on the experiences of a different set of key actors in sports, namely players, managers, and—especially—referees. However, it aims to refine Fletcher and Stoney's detailed picture of mediatization as a process involving ambivalence, tensions, and dilemmas by defining mediatization as a growing dependence on media technologies and media institutions, one that unfolds in negotiations that involve tensions, conflicting interests, and contradictory forces.

VAR as a shift: shaped by a historical relationship

The decision to implement VAR is the outcome of football's prolonged and intense historical relationship with broadcast television—against a background of continuously developing television and digital communication technologies in the wider society. In this respect the implementation can be seen as a case for intensified mediatization in the digital age. Since the late 1980s, European men's football has marketed itself as a television product.

Television technologies have continued to develop tools for analyzing the game, tools which, over time, have shaped our understanding and experience of it (Boyle & Haynes 2004; Frandsen 2020; Garcia & Cid 2020; Haynes & Boyle 2017; Whannel 1992). For football, this long relationship has brought about professionalization and improvement of the game, which has become faster. It has also led both to changes in the representation of the game and to collaboration and interdependencies with television broadcasters and with the sponsors who pay for television exposure. However, a feature of this complex historical development is that football's governing bodies have experienced a gradual loss of autonomy as levels of finance in the game have spiraled and the various forms of strategic interests invested in football and technological changes proliferated. Figuratively, as the game has become faster, access for television viewers, media commentators, and producers to replays and high-resolution images have put the referee under intolerable pressure, placing his/her ability to follow the game and space for interpretation and judgment under increasing pressure (Colwell 2000). The decision to implement VAR is the most recent response by football's governing bodies to this combined process of intensified commercialization in men's elite football and the "gradual undermining of the authority of the referee" in the long run (Haynes & Boyle 2017, p. 91) caused by advancements in media technologies. In that respect it is part of a historical process of mediatization in which the game of football as played has itself changed, while the

sport has repeatedly renegotiated core values and practices while adjusting itself to the institutional logics of the media and the market.

The intensity of the debates over the implementation of VAR illustrate that, seen from football's inside perspective, the implementation of VAR is a decisive breaking-point. As already mentioned, mediatization is *not* a linear process in which things undergo constant change because of the increased presence of media. In the larger picture, mediatization "occurs in various 'waves' of fundamental change to the media environment" (Hepp 2019, p. 5). Hjarvard too suggests that social and cultural change takes place in shifts, but drawing on interinstitutional theory he connects such breaks closely to the coexistence of several sets of institutional logics in each institution. In football, for instance, the set of logics from the institutions of sport in elite organizations coexists with values, norms, and practices from other institutions like the market, media, and politics. According to Hjarvard, mediatization can be advanced when a particular institution or domain like football experiences the break-up of a "stabilized pattern of power relationships" (Hjarvard 2014, p. 215), which has existed for a period. A break-up of existing power balances leads in the long run to a new constellation of influences that solidify, shaping norms, roles, and practices in new ways for a period. In the first place, however, a break-up may instigate a period of transformation and instability in which values and practices undergo intense renegotiation. We argue that football in these years is engaged in precisely this kind of negotiations.

Mediatization as dependence and negotiations of autonomy

Taking a similar approach, but arguing for a more critical approach to mediatization, André Jansson (2015; 2017) urges us to be more specific when identifying and discussing a case as an instance of mediatization. He conceptualizes mediatization as qualitative transformation in which a social domain becomes "inseparable from and ultimately dependent on processes and

resources of technological mediation” (Jansson 2017, p. 6). Jansson’s focus on technology and dependence is intended to ensure that we discuss mediatization as more than just increased media saturation. The transformation into increased dependency implies negotiation and “incorporate[s] a decrease in individual or institutional autonomy” (Jansson 2015, p. 16). The implementation of VAR provides a case where such negotiations of individual and institutional autonomy are displayed on several levels, spanning individual actors like coaches, referees, and players and also the governing bodies that represent football in the sporting institution. Existing mediatization processes have already caused growing inequality in football (Feddersen 2006; Frandsen 2020); besides transforming essential structures including business models, tournament structures (Boyle & Haynes 2004, 2017), and organizations (Borgers 2019; Stefan 2017), they have transformed fan behavior and perceptions of the game. They have also brought new patterns of behavior and communication *around* the game (Becker & Widholm 2014; Birkner & Nölleke 2016; Hutchins 2016; Skey et al., 2018; Skey & Waliaula 2021). These processes may be described as enactments of what Jansson has termed ‘transactional’ and ‘ritual’ levels of dependence. *Transactional dependence* means that both individuals and organizations in football have adapted to formal and also informal rules and structures in media in order to achieve a certain ‘good’, such as exposure, sponsorships, or revenues from rights deals. *Ritual dependence* means that individuals and organizations have adapted their behavior and adopted particular uses of media to the extent that these are now perceived as standard procedure, thus meeting the social expectations and cultural order that characterize particular media or media culture more broadly. This is what we see in footballers’ and clubs’ systematic use of social media platforms and fans’ sport gambling and ‘naturalized’ use of mobile media platforms and television images on large screens as an integrated experience of the game while they are in the stadium. Yet the impact of VAR systems extends into the game on the field: it also affects

practices and values among the core elite actors who are directly involved in creating the game on the field. In that sense the implementation of VAR illustrates how football in its core—the game—is becoming ever more closely tied to the technological and institutional logics of media. Football is becoming dependent on media on a functional level, as visual footage from television broadcasts, in combination with the use of software-based processes and digital mobile audio communication, together make up an essential element in the referee's facilitation of the game. This type of *functional dependence* is an integration of media as technics (Jansson 2015, p. 21), and it emerges, according to Jansson, "(...)when practical procedures are altered and made dependent on mediated forms of communication, to the extent that a certain activity can no longer be carried out without the assistance of media" (Jansson, 2015, p. 17). Functional dependency is a further accentuation, over and above transactional and ritual dependence, and many of the discussions among actors and stakeholders in football regarding the role and authority of the referee that are raised by the implementation of VAR are fundamentally negotiations about loss of autonomy. Still, as Jansson, in agreement with Hjarvard, stresses, these dependencies are not created by the media in isolation, but rather by the "different social, cultural, economic and political forces" (Jansson, 2015, p. 17) that coexist in and around football. It is these forces that inform actors in football about how and for what purposes to use media—in our case, to implement the VAR system.

The empirical study

The overall aim of our exploratory study has been to explore *how* the implementation of VAR causes discussions and changes in football once taken into regular use in the national leagues and in this sense institutionalized. In Hjarvard's words:

mediatization occurs through the institutionalization of particular patterns of interaction (formal and informal rules) and allocation of interactional resources

within a particular social institution or cultural sphere (Hjarvard, 2014b, p. 127). Our study did not aspire to establish changes in absolute terms, but rather to explore the aspirations, processes, and themes of negotiation through which individuals and organizations in football are gradually adapting to the new conditions set by VAR. On the one hand, football organizations are attempting to meet the demands and principles set in the international protocol by IFAB, yet on the other they are modifying those demands and principles according to the contexts in which VAR is deployed. The primary context for our study was the implementation of the VAR system in the 2020/21 season in the Danish Superliga—the men’s primary league in Denmark, with a market size of 5.8 million. Although its size makes it one of the minor leagues in the European context, it is ranked number 14 in terms of sporting strength in Europe (UEFA 2021), and it is the strongest league in the Nordic countries. In financial terms, the league is characterized by inequality and polarization: three out of the fourteen clubs account for approximately 50 percent of the total budget of the whole league.

Our qualitative study has a sequential design, triangulating different types of data. The first step in our data collection was a systematic search via Google identifying major themes in public debates surrounding the decision to implement VAR and the first four months of implementation in two other big leading national leagues, namely the German Bundesliga in 2017/18 and the English Premier League in 2018/19. These two powerful international leagues adopted the VAR system before the Danish League, and in different ways. For historical and structural reasons, both leagues have a large following in Denmark, where they get intense regular television coverage. Thus, their experiences and discussions of values and practices following the implementation of VAR have shaped not only the decisions of DBU, the Danish football governing body, on how to implement VAR within a league with fewer resources, but also the attitudes and expectations of Danish fans, players,

coaches, and journalists about the changes involved with the system. Our search identified three major themes in the international debate, reflecting key aspects of institutional change: (1) changes in organization and communication, (2) technology and the ‘spirit’ in refereeing, and (3) changes in game flow. This mapping was followed by a similar, but extended mapping of the general public debate on VAR in a range of Danish media in two periods in 2018/19 and 2019/20. This mapping identified the same three recurring themes. Combined, these mappings provided a first overview of different interpretations and negotiations going on in and around football regarding the VAR system.

The mappings established the basis for the next step, in which twelve in-depth semi-structured interviews (lasting 36–76 minutes) were conducted with four managers/coaches, two players, and six referees from the Danish Superliga. The aim here was to add to our understanding of the themes identified and thus to take a bottom-up approach to mediatization by focusing on experiences of the system and core actors’ reflections on how it may affect behavior, practices, interactions, and values—from their particular perspective, as referees, players, or coaches /managers. The interviews were transcribed and thematically coded. Together with public communication from other coaches/managers and players in Danish news outlets, and communication from the DBU and the Superliga on official websites and social media in the fall of 2020, these interviews form the empirical material presented in the analysis. In this, we draw on Jansson’s approach and focus particularly on data that enhance our understanding of how functional dependency unfolds as an integration of media as technics. In the analysis we focus especially on how the autonomy of football and of the referee is negotiated on several different levels among actors directly involved in the game. The analysis is structured in three sections, each focusing on a particular aspect of the process: (1) structural and contextual factors influencing the implementation, (2) dependency on television footage, (3) changes in competences, practices, and authority. In our

presentation we have, for ethical reasons, anonymized all the interviewees, who are named solely by their role (manager/coach, player, referee).

Structural and contextual factors influencing the implementation

The decision to implement the VAR system in the Superliga starting from the 2020/21 season—the first Nordic football bodies to make this move—was informed by two related motives. The first of these was, of course, as documented by other scholars, to “compensate the limits of referees’ perception” (Carlos, Ezequiel & Anton, 2019, p. 646): to secure more accuracy and fairness in football and especially to avoid mistakes in refereeing decisions in match-changing situations (Armenteros, Benitez & Betancor, 2020; Zglinski, 2020). This was not just for the sake of securing accuracy as such, but because this kind of mistake, which television can document, besides generating great attention in the media and controversy in all the discourses surrounding football, can also have severe economic consequences for the clubs. Thus the quest for “increasing the social perceptions of justice”¹ (Samuel, Galily; Filho & Tenenbaum, 2020) in the game is no longer solely a value in itself manifesting the autonomy of the sport, but is closely entangled with a mental awareness of media logic and the economic structures in and around football. A lost match can lead to relegation, and subsequent large reductions in revenue from television and sponsors. In Jansson’s terms, we might say that transactional dependency underlines the need to reduce the tensions that can arise from television’s ability to make mistakes transparent to a greater public (Collins, 2010). This merging of ideal values, media, and structural conditions was expressed in fragments by most of our interviewees, but the connection was put into words by a former top referee now engaged in refereeing on a managing level:

You may say that the purpose of VAR actually is to secure increased fairness in the figures at the bottom line, and at the same time to avoid the worst headlines in the newspapers the day after. (Manager/coach, personal communication,

December 10, 2019)

A second motive behind the DBU and Danish League's decision illustrates how the governing body of football in this European small-nation context has lost some of its autonomy because of the structural conditions that it has to contend with as part of an increasingly internationalized sports television market, especially since digitization. Digitization and the larger economies' provision of better quality in the game in other European football leagues has put the small Danish Superliga under pressure. The decision to implement VAR in the league connects directly with this competitive situation. Danish football viewers have been watching English football matches since the late 1960s (Frandsen, 2020); but now, besides the Premier League, they also watch the Bundesliga, La Liga, the Serie A, and the Champions League on a range of broadcast and streaming platforms. Thus for some years the Danish League has struggled to maintain the Superliga's position as a premium product on the Danish television market—a market that is becoming even more fragmented by the transition from broadcast to streaming. Implementing VAR was considered essential in this accentuated struggle to attract Danish football viewers, who are key to securing the economy in the league:

We have three strategic premium sports products in the Danish media landscape, and that is the Superliga, the Champions League and the Premier League (...) We [Danish League] cannot have a product which appears less professional. It [VAR] is important for us as a premium product. (...) It has become part of football, and part of what you expect as a spectator. (...) It belongs to a premium product, I mean, it takes time, you can see it. It contributes to a reduction of mistakes in match-changing decisions, and this means that you deliver a product of the highest quality. (Manager/coach, Danish League, personal communication, September 16, 2020)

From the perspective of the Danish League, football products as developed by the big European leagues and their contracting television broadcasters set the bar in terms of product value. This obviously limits the league's freedom of action as it tries to maintain its status as a nationally attractive entertainment product and part of professional European football.

Therefore, the decision to implement an expensive system like VAR illustrates how the autonomy of the small European leagues is noticeably coming under pressure and being modified by the big leagues' increasingly dominant position. This hegemonic structure is echoed in the referees' shared view of VAR as a modernizing element. In particular they see the implementation of VAR in the Danish context as decisive for their own international careers. As one of them put it: "VAR is a running train arriving now. You can get on it—if you don't you will get run over" (Manager/coach, personal communication, December 10, 2019).

The intensive coverage and popularity of especially the Premiere League in Denmark means that the big leagues' early implementation and the public controversies that followed have added to the pressure on and added to the agenda of the Danish League, which, as a second mover with fewer resources and less power, had no ambition to diverge from the recommendations of UEFA and the IFAB protocol (see Bacigalupe, 2020). Learning from the English case, the Danish implementation has been focused on maintaining the greatest possible autonomy and authority with the referee on the field, as expressed by this manager:

For us it has been of greatest importance that the referee on the field is the one who is responsible for the match, and is the one who has a final say in every connection. Who is able to insist on his/her original decision. Who can trump what VAR recommends—of course he won't, but he is able to, if he has a need for it. (...) VAR is a supporting element. (Manager/coach, personal communication, September 18, 2020).

Communicating this approach—not only to referees who are being trained in the technology but to journalists and to fans—has been a strategic priority. For the referees who have been trained for more than a year in the use of the system, the training process has included several strategic communication/teaching modules in which journalists were invited to introductions and selected sessions that illustrated the objectives of the Danish implementation by giving them an opportunity to watch the training and experience the technology and decision

processes ‘hands on.’ Fans too have been engaged in the process, and their ritual dependence on television pictures as part of a mediatized stadium experience has led to the development of a communication system that can simultaneously keep television viewers and fans in the stadium informed when a VAR check is being processed. This communicative effort to reframe the expectations and discourse around VAR as set by the English case also led the managing referees to visit players, managers, and coaches in all fourteen Superliga clubs just before the system opened at the start of the 2020/21 season. Finally, the governing bodies have communicated publicly in videos about the implementation of the system focusing on critical situations from games at the beginning of the season, including both illustrative clips and Q&A sessions based on questions from fans. This ‘learning material,’ published in the first months of the season, reflects how mediatization puts sports actors under increased pressure to communicate.

Dependence on television footage: fairness on unequal terms?

The VAR system’s vital technical element is the visual footage produced for broadcasting. This integration of the VAR system and the broadcasts has been stressed at every level ever since the IFAB first started experimenting with the system. This is because of the need to secure transparency and to make sure that all the institutional actors involved—viewers, spectators, commentators, and referees—have access to the same visual information about the individual game. However, transparency is not provided on equal terms—especially not in a small-nation context, where balancing costs and needs is a particularly challenging task.

The Danish League contracted a technical setup which was based on a cheaper software compared to the internationally better-known software developed by Hawk-Eye. Thus the Danish provider of the system had to hire and educate the operators simultaneously with the league starting to train the referees: “(…) They [operators] came in directly from the

streets, so we knew that we should start this up together completely naked” (Manager/coach, personal communication, September 18, 2020).

In the small-nation context, the integration of broadcast and VAR systems also means that the whole setup of the television productions—which involves variable camera provision and positioning depending on the popularity of the individual game—now sets the parameters for decision-making on match-decisive situations. In other words, media logic and media economic concerns work together to condition the system—because the broadcasters decide on a running basis which matches they want to cover in the particular timeslots they have bought the rights to. The matches that are expected to attract the largest number of viewers and provide the most spectacular fanbases are selected for broadcast in prime time at weekends—and these matches are typically covered by twelve cameras. Whereas less popular matches between teams with smaller fanbases are relegated to timeslots outside prime time, and for this reason the same technical setup is too costly to provide—so that these matches are often covered by between five and seven cameras. This is despite the fact that that all clubs in the Super League must pay the same for the operation of the VAR system in the league. In essence, this integrated arrangement means that the system has the potential to deepen already existing divides in the league: first, because the cost of operations is relatively higher for smaller, poorer clubs; and second, because the smaller clubs’ match transmissions only feature five to seven cameras. In that sense the smaller clubs and their business partners are not only receiving a lower production value in the broadcasting product but also a different product in terms of umpiring. This is perceived as a matter of inequality among some players, as expressed by one of our interviewees:

It is evident that for some of the minor clubs this is a shortcoming (...) Then you know that FCK and Brøndby and FC Midtjylland and all the big clubs, they clearly get most of these 6 o’clock matches. They get the best preconditions [for fairness], one may say. (Player 1, personal communication, November 25, 2020).

VAR is intensifying already existing inequalities between clubs and from the referees' perspective too, the impact of these structural conditions have given rise to discussion—though for the referees, more cameras do not necessarily equate with high quality in securing accuracy and fairness and may in fact represent a threat to the referee's ontological authority in defining the official truth of what has happened in the game. In general, the referees accept that visual footage is shaped by television's institutional agenda, meaning that several of the cameras in the larger camera setups can have shifting functions and can focus on actors and things beyond the field. But this can cause problems for them, for example if broadcasters remove one of the cameras from the small setups during the late end of the second half to get ready for post-game interviews. "It [camera-set up] is important for the validity in what we are doing. In relation to our ability to see if a clear and obvious mistake has been made" (Referee 2, personal communication, October 29, 2020). The number of cameras is also important in the sense that increased numbers of cameras increase the number of situations that can be covered on the field. This challenge is also stressed by Samuel et al. (2020) in an analysis of the Israeli implementation. However, higher numbers of cameras are also perceived as more demanding for the referee who is tasked with being the VAR referee: he/she on the one hand has to be more knowledgeable about the potentials with a wider set of camera angles, and on the other must still be able to perform the assessments within a very short time period. So for the referees, whose main concern is to secure transparency and avoid errors that create controversy and media headlines, fewer cameras are not in themselves a problem:

If the television pictures do not reveal anything, then nobody can afterwards come and say that something is lacking. And we live fine with that. I can easily live with mistakes being made on the football field, and television pictures not showing them (...) After that nobody can say that we were wrong in what we did. As there is nobody who can prove that we did make a mistake. (Referee 1, personal communication, February 8, 2021)

One might say that VAR instigates a renegotiation of the values of accuracy and fairness among these key actors as they take a highly pragmatic approach—with the result that these values are dependent on evidence as provided by media. The referee’s ontological authority to officially define what has happened in a game is now shared with the media.

Changes of competences, rationalized practices, and shared authority

As indicated above, the integration of ‘media as technics’ (Jansson) is not unambiguously perceived as a modernizing or upgrading element in football that will simply reduce pressure on the referee. All the interviewed referees and players record that the pressure on the referee *on the field* has decreased; but instead, the pressure has been moved into the VAR room.

Here the VAR referee, in collaboration with an assistant video referee and a technical operator, has the responsibility for evaluating all match-changing situations and intervening if he/she believes that a ‘clear and obvious mistake’ has been made. And because the video referee can make use of technology, the referees in our study perceive this new role—and the role of referee as such—as becoming even more complex and demanding:

I would not say that it has become easier. I think the discussions just have moved to a different place. But it is still focused on us and our decisions. (...) They have moved to a focus on the estimates being made: Why is it that VAR is not intervening, or why is it that VAR wants to intervene? And regarding the referees [on the field], it is obvious that a lot of stress has been taken away, but it has just moved out into the VAR room. It is no longer the individual referee on the field who has to defend the decisions. (Referee 3, personal communication, November 26, 2020)

Our interviewees’ perceptions correspond very much with those of their Israeli colleagues, as quoted in Samuel et al.: “The VAR is ungrateful, challenging. There is more pressure than on the field.” (Samuel et. al. 2020, p. 8) The VAR system thus brings with it increased complexity in the practices of refereeing as well as a perceived intolerance of errors among the audience and commentators. This puts even more pressure on the new role of the VAR referee, who has to “be good at navigating under pressure” (Referee 4, personal

communication, October 29, 2020). Adding to this pressure, authority is now negotiated as a shared responsibility among an enhanced team of referees: the group has grown from four to seven people, three of them located away from the field in a VAR room and one of them a media technician. The embedding of mediated communication in the practice of refereeing functions both to restructure the social structure of the group and to add greater complexity in the practice. Thus the hierarchy in the group becomes strengthened as new interactional practices before and during the game are required:

We are many now. The referee on the field has the overall responsibility (...)
There are more people to communicate with before the matches. There are more people and more issues to give directions on before the match. And there are more rules, or commands, more agreements to be made, so everybody knows what to do when. (Referee 1, personal communication, February 8, 2021)

In the Danish implementation, all referees in the league are required to switch between being on the field and in the VAR room. For the latter function, acquiring new media technological skills is particularly urgent and demanding, both in order to be able to use the footage in the most precise and time-efficient way and to optimize collaboration with the technician operating the system. The situation for the VAR referee is perceived as both very demanding and very different from being on the field. One of our interviewees stresses that VAR may change the referee's approach to the game to a more rationalized one:

There is the technical setup, suddenly you are sitting in front of four screens (...)
You are just sitting outside in a wagon watching television, and you are not having the same feeling of it, as you have on the field. That is a bit dangerous. It becomes, you know, a bit clinical (Referee 5, personal communication, December, 2019)

The whole group, with everyone connected through a mobile audio-communication system, has had to adopt new practices in their social interaction with each other during a match. In several respects communication in the group has been rationalized. First, to secure communication between the managing referee on the field and the colleague in the VAR room who reviews all match-decisive situations, social small talk has been eliminated and

substituted by a more goal-oriented and instrumental style of communication: “All that we might call ‘needless talk’ has been cut away” (Referee 4, personal communication, October 29, 2020). Second, the technical terms used in the reviews are in English, simply in order to strengthen the referees’ international competence profile. The main official on the field has had to adopt a totally new communicative behavior, signaling to the audience by pointing to his/her ear as he/she gets information from the VAR room, then explicating and specifying orally to colleagues in the VAR room what he/she has seen. Thus he/she has to continually explain and clarify the decisions taken.

The ultimately challenging situation for all actors is when the VAR referee intervenes and decides to recommend a VAR check by the referee on the field. The perception of this situation is very ambiguous, and it illustrates how the ontological authority of the referee is undergoing transformation from being mainly an individual to a collectively shared matter. To both players and coaches it is evident that there is still plenty of room for interpretation, both on the field and in the VAR room, but many are confident that checking with the VAR room will produce greater fairness in the long run. The action of consulting the screen on the field stresses a new and shared authority, and in so doing it also strengthens authority for the referee on the field: “If he has any doubts, I believe that his authority is strengthened by checking it” (Player 2, personal communication, December 30, 2020). However, the situation is more complex seen from the perspective of the referees. For both the referee on the field and the video assistant referee, the situation represents a serious dilemma because it is perceived as a very clear-cut articulation that a mistake has been made by the former. As all referees are subject to strict evaluation of their performance after every match this situation challenges not only the authority, but also the collegial loyalty in the team: “There I feel how the heart rate gets up. Because, you [the VAR referee] add a match-decisive error to the referee. You also have to be aware of that.” (Referee 5, personal communication, January 29,

2021). The situation is also challenging from the perspective of the on-field referee, who has to adopt a new mental attitude in accepting this intervention as a support rather than an action that casts doubt on his/her skills and authority. Accepting this manifestation of collegial intervention requires a mental readjustment by the individual referee. Because intervention puts the referee in the focus and adds extra information to the concurrent evaluation of his/her performance on the field, this is difficult:

The first time you are called on is wildly transgressive. Because, you are standing out there, and you know that now you have all cameras down your neck. (...) Standing there becoming familiar with the fact that you have just missed the penalty of the decade (...) so getting this feeling of being a bit of a failure.

(Referee 3, personal communication, November 26, 2020)

In the team, such situations are always followed by intense communication stressing that the important thing to take away from these uncomfortable situations is that they, as a team, ended up making the correct decision. In that way they work to maintain autonomy at the same time as negotiating authority from something based mainly on individual skills to a more collective matter.

Conclusion

This article has analyzed the implementation of VAR in football in a small-nation context. The overall argument is that as football becomes dependent on media on a new functional level, the VAR system is to be seen as a matter of intensified mediatization in the digital age. The small-nation context adds to our understanding of the very complex structures in which the processes of mediatization should be understood, including especially strong historical structures of inequality and power in transnational European sports and media systems. The analysis has illustrated how the loss of institutional autonomy is a continually evolving

process in football, one that for the small national leagues is interwoven with the hegemonic structures in the European media and sports systems. On the surface, the implementation of VAR may look like a minor technological addition, but it should be seen in a historical perspective, including in the light of the long-term relationship between the football organizations and broadcast television, as well as the increasingly competitive television markets following digitization. The analysis has also demonstrated how the system's integration of decision-making processes with umpiring and broadcasting meets institutional needs for transparency. At the same time, however, this structural integration means that media logics and media economic concerns now shapes thinking about accuracy and fairness in sports decision-making. Finally, the analysis has illustrated how the implementation of VAR has made refereeing a more complex process, instigating processes of rationalization that have affected the structures of social interaction, as well as a renegotiation of authority in umpiring into a less individualized matter. In a wider perspective the case of VAR illustrates how communication technologies in the digital age transforms sports on a deeper level as a wider range of practices and values are changing. Thus in the future media and communication scholars needs to take the material aspects of media, or 'media as technics'(Jansson, 2015, p. 21, much more into consideration to grasp the transformative power of for instance surveillance technologies and processes of datafication.

References

Armenteros, M. (2020). VAR experiments in international matches. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.208-227). Routledge.

Armenteros, M., Benitez, A.J. & Betancor, M. (Eds)(2020). *The use of video technologies in refereeing football and other sports*. Routledge.

- Baldwin, C. F. (2014). Video killed the sports referee: The role of video replay technology in creating anxiety and stress amongst rugby league referees. *International Journal of Arts & Sciences*, 7, 305-312.
- Becker, A. & Widholm, A. (2014). Being there from afar: The media event relocated to the public viewing area. *Interactions: Studies in Communication & Culture*, 5, 153-168.
- Benitez, A.J. (2020). Is it the same for the TV screen as for the VAR? Planning the use of cameras and replays to solve the controversy. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.39-69). Routledge.
- Benitez, A.J. , Stepanian, E, & Lopez, À. M. (2020). Video technology for refereeing in others sports: tennis and rugby. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.138-163). Routledge.
- Birkner, T. & Nölleke, D. (2016). Soccer players and their media-related behaviour: A contribution on the mediatization of sports. *Communication & Sport*, 4, 367-384.
- Boyle, R. & Haynes, R. (2004). *Football in the new media age*. Routledge.
- Carlos, L.P., Ezequiel, R. & Anton, K. (2019). How does video assistant referee (VAR) modify the game in elite soccer? *International Journal of Performance Analysis in Sport*, 19, 646-653.
- Cid, M.S. & Garcia, A.L.G. (2020). The interaction between audio and the video assistant referee in football. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.70-85). Routledge.
- Collins, H. (2010). The philosophy of umpiring and the introduction of decision-aid technology. *Journal of the Philosophy of Sport*, 37, 135-146.
- Colwell, S. (2000). The 'letter' and the 'spirit': Football laws and refereeing in the twenty-first century. *Soccer & Society*, 1, 201-214.

- Crespo, J.D. (2020). The contribution of the VARs to fairness in sport. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.23-35). Routledge.
- Dawson, P., Massey, P. & Downward, P. (2020). Television match officials, referees, and home advantage: Evidence from the European Rugby Cup. *Sports Management Review*, 23, 443-454.
- De la Vega, R. & Fuentes, J.P. (2020). Psychological response of the referee to the introduction of VAR. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.339-350). Routledge.
- Dyer, B. (2015). The controversy of sports technology: a systematic review. *SpringerPlus*, 4, 524. <https://doi.org/10.1186/s40064-015-1331-x>
- Fedderson, A. (2006). Economic consequences of the UEFA Champions League for national championships – The case of Germany. *Hamburg Contemporary Economic Discussions*, 1. Retrieved from www.hced.uni-hamburg.de/WorkingPapers/200601.pdf
- Frandsen, K. (2020). *Sport & Mediatization*. Routledge.
- Garcia, A.L.G. & Cid, M.S. (2020). Replays in football: a technical resource that serves as a narrative and post-refereeing system. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.86-104). Routledge.
- Haynes, R. & Boyle, R. (2017). The FIFA World Cup. Media, football and the evolution of a global event. In Wenner, L. A. & Billings, A.C. (Eds) *Sport, Media and Mega-Events* (pp.85-99). Routledge.
- Hepp, A. (2019). *Deep Mediatization*. Routledge.
- Hjarvard, S. (2014). Mediatization and cultural and social change: an institutional perspective. In K.

Lundby (Ed) *Mediatization of communication* (pp.100-226). De Gruyter Mouton.

Hutchins, B. (2016). 'We don't need no stinking smartphones!' Live stadium sports events, mediatization and the non-use of mobile media. *Media, Culture & Society*, 38, 420-436.

Jansson, A. (2015). Using Bourdieu in critical mediatization research. *MedieKultur*, 58, 13-29.

Jansson, A. (2017). *Mediatization and mobile lives. A critical approach*. Routledge.

Kolbinger, O. (2020). VAR experiments in the Bundesliga. In M. Armenteros, A.J. Benitez & M. Betancor (Eds), *The use of video technologies in refereeing football and other sports* (pp.228-245). Routledge.

Leveaux, R. (2010). Facilitating referee's decision making in sport via the application of technology. *Communications of the IBIMA*, 1-8. Retrieved January 7, 2020 from:

https://www.researchgate.net/publication/45266672_Facilitating_Referee's_Decision_Making_in_Sport_via_the_Application_of_Technology

McLoughlin, I. & Dawson, P. (2017). 'Howzat' – how do artefacts without matter, matter? The case of decision review systems in professional cricket. *New Technology, Work and Employment*, 32, 131-145.

Nafziger, J.A.R. (2004). Avoiding and resolving disputes during sports competition: Of cameras and computers. *Marquette Sports Law Review*, 15, 13-28.

Neville, A.M., Hemingway, A., Greaves, R., Dallaway, A. & Devonport, T. (2017). Inconsistency of decision-making, The Achilles heel of referees. *Journal of Sports Science*, 35, 2257-2261.

Nlandu, T. (2012). The fallacies of the assumptions behind the arguments for goal-line technology in soccer. *Sport, Ethics and Philosophy*, 6, 451-466.

<https://doi.org/10.1080/14660970.2016.1267629>

Zglinski, J. (2020). Rules, standards, and the video assistant referee in football. *Sport Ethics and Philosophy*, <https://doi.org/10.1080/17511321.2020.1857823>

¹ Some scholars use the term justice in their discussions of VAR and other decision-aid-technologies in sports. This is especially the case when the discussions are grounded in legal, philosophical scholarly frameworks. However, as the word ‘justice’ semantically are related to the concept of human rights and despite of the fact that rules admittedly play a distinctly serious role in game-based phenomena like sports, we prefer to use more restrained terms like accuracy and fairness.