ANALYSIS OF ORGANIZATIONAL BEHAVIOR THROUGH THE SERIES "LA CASA DE PAPEL: LEADERSHIP, CONFLICT AND PERSONALITY

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ABSTRACT

This paper analyses organizational behavior, in terms of the identification of personality traits, conflicts and leadership styles and their interrelationships through the protagonists of the Netflix series La Casa de Papel. For this purpose, the methodologies of network analysis (SNA) and Fuzzy Cognitive Maps (FCM) are used. The main results have allowed the establishment of different leadership styles such as those related to Blake Mouton, Cognitive Resource Theory or Transformational Leadership. As well as the identification of goal, procedural, affective, and cognitive conflicts and the five main personality traits. The simulation and the scenarios proposed, to establish the interrelationships of the concepts, allow us to conclude the following: i) the final validated model is reasonably associated with the perception of the concepts proposed and their interrelationships of the characters of the series used as an analysis laboratory ii) the proposed changes of scenarios in the values of the activation vector of the proposed model present a stable behavior.

Keywords: Organizational behavior, Leadership, Conflict, Personality, Fuzzy Cognitive Maps.

INTRODUCTION

This paper analyses leadership styles and their relationship with the personality, conflicts and environmental situation of the characters in the Netflix series La Casa de Papel. The use of audiovisual media such as film, is a resource that has been previously used. Authors such as (Shaw, 2004) cited by (Fournout, 2017), indicate that films are considered "excellent didactic tools". Well-chosen excerpts serve as superb examples of how human beings relate to each other. For example, Champoux, (2001) uses in his book "Using films to visualize principles and practices" themes related to motivation, team management, conflicts through scenes from more than one hundred films (Fournout, 2017). This author explores through a corpus of films (Thirst for Scandal, 1931; The Maltese Falcon, 1941; The Price of Triumph 1956; Serpico, 1973; The Pale Horseman, 1985; Avatar, 2009) the heroic structure of the protagonists, looking for common traits, defined by what the authors call Hero-Leader Matrix. Other authors (Hardwick, 2021) use films such as Souls in the Bonfire (Twelve O'Oclock High) to show theories of X and Y motivation.

This paper uses the television series La casa de papel, considered by The New York Time as one of the most watched series broadcasted by the Netflix platform (44 million viewers). Authors such as (Segarra-Saavedra et al., 2023) mention that cinema has been the narrative medium par excellence in the 21st century. However, television series gradually migrated towards cinematographic language, internalizing the creative and productive canons, but also the aesthetic and narrative condition, giving rise to true cult products and blurring the line that separates cinema from serialized fiction. Like (Fournout, 2017), the choice of the series la Casa de Papel is partially arbitrary, although it keeps singular characteristics that justify its choice. It is one of the series with the highest audience, as mentioned and recognized with different prestigious awards (Gómez Ramos & Guerrero Martínez, 2020). For this reason, the series was extended for four more seasons. As mentioned, (Segarra-Saavedra et al., 2023), there is a growing interest in the academic world in audiovisual serialized fiction as an object of study, and this work adds to the consolidation, to which the authors allude, related to other fields, in this case in the field of education and business management.

This series has been previously considered in academia, as for example, (Bonavitta & de Garay, 2019) where they analyze the sexist stereotypes and the narrative of women in the plots of La Casa de papel along with the series Rita and Merlí. (González-Rosero, 2019) analyses the discourse with the intention of determining if this, questions the scarce citizen participation in society. The relationship of metaphors in his work offers an interesting thread. In her analysis, she reflects from the metaphor of the title itself, house as something fixed and solid with a certain structure, and role that annuls the condition assigned to house and provides a representation of an ideal, utopian, or volatile entity. Even the questioning that the series could glimpse, as implications on the questioning of the financial system or the idea of crime as a business "the heist" to the Fábrica Nacional de La Moneda y Timbre (FNMT), where the heist is a war and its maxim is "to gain time" to make money, which in principle, "is not stolen from anyone" according to one of the protagonists, the Professor. In this sense, the characters, the thieves, in idealized terms according to (González-Rosero, 2019), are postmodern antiheroes who manage to carry out winning strategies in the face of the institutional power of the State, associated with the police negotiation team. (Castelló-Martinez, 2020) performs a brand analysis within the field of communication. (Pereira-Villazón &Portilla, 2020) analyze the communication of the series through different audiovisual media.

LIDERAZGO, CONFLICTO Y PERSONALIDAD

Liderazgo

Some authors such as (Benmira & Agboola, 2021) mention the complexity and multidimensionality of the concept of leadership. In this sense, leadership issues are probably among the most studied and under permanent analysis. These authors indicate that the evolution of leadership is structured on the basis of four eras, based on: traits, behavior, situation and the so-called new era of leadership. The trait theory (1840-1940) focused on identifying the traits and effective characteristics of the leader, such as intelligence, honesty, integrity, confidence, knowledge, or ambition. The factors associated with innate personality traits become especially relevant; Extraversion, Anxiety, Toughness, Independence and Self-control. This theory is based on the idea that leaders can be born as such, in the form of genetic inheritance or become leaders

through training and experience. Studies in this direction have been inconclusive. The behaviorist theory (1940s-1950s), states that leaders are made by learning certain behaviors, with the idea of effective leadership. One of the best-known styles in this era and applied in numerous training programs is the one referred to Blake and Mouton, where the style depends on the leader's involvement or interest in two factors; meeting objectives or concern for people. In this sense, high level of concern for both implies a "Democratic" style, low in both, "laissez-faire or passive" style, high in objectives and low in people "Autocratic" and vice versa "Paternalistic". Finally, medium levels of both, "Bureaucratic" style.

Subsequent to these two aforementioned eras, great importance was given to the environment in which the leader-follower relationship took place (1960s). Situational or contingent leadership assumes the greater importance of the context as opposed to traits or behavior. The leader analyzes the environment and decides which would be the best style. One of the best known and applied in the business world is that of Hersey and Blanchard, where the degree of maturity of the followers guides the leadership style at any given moment. Fiedler is also recognized as one of the precursors of contingent leadership theories. Fiedler and Garcia later developed the theory of cognitive resources. This is based on the influence of stress as a form of situational disadvantage and how a leader's intelligence and experience are affected by it.

The era of new leadership (1990s-2000s) characterized by transactional and transformational leadership, among others. Transformational leadership is a theory in which leaders encourage, inspire and motivate their followers, where the charisma of the leader is also a factor to be considered. In dynamic situations such as in technological or innovative environments, transformational leadership has a strong explanatory power. Transactional leadership, on the other hand, relies on authority to motivate employees (Benmira & Agboola, 2021). The leader exchanges rewards for followers' effort and punishes any follower who fails to perform. Authors such as (Robbins, 2004) mention that transactional and transformational leadership should not be considered opposite styles of doing things (Bass, 1985; Seltzer and Bass 1990). Transformational leadership is built on transactional leadership, the former invites effort and performance that goes beyond what would have occurred with the transactional approach alone. (Robbins, 2004), in turn, indicates that transformational leadership goes beyond charismatic leadership, related to the fact that leaders want their followers to adopt a vision of the world like their own. Transformational leadership tries to instill in his followers the ability to question not only the established opinions, but even those that he himself established. Other authors such as (Loscalzo et al., 2023) mention the difference between the concept of servant leadership versus other leadership styles, such as transformational leadership, as a consequence of the leader's interest in his followers for the achievement of objectives (Moss & Ngu, 2006).

In recent years, some leadership currents have appeared that are based on the idea of shared, collective, collaborative leadership, where the focus is more on leadership actions coordinated and shared by the organization and not so much centered on specific individuals. Also servant leadership, as a return to the consideration of the importance of followers. Finally, the approach of leadership based on complexity, a consequence of the continuous dynamic changes that take place. Recently (Reyes et al., 2021) based on team, transformational, shared and crisis leadership reflect on leadership in times of crisis in the healthcare environment. Their recommendations revolve around six key points; (1) maintaining optimism when communicating a vision (2) adapting to the changing situation by drawing on team members, (3) supporting

organizational resilience by providing relational resources, (4) being present for engagement, (5) being empathetic to avoid burnout, and (6) being transparent to remain trustworthy.

Conflict

As collected in (Pol, 2015), a first approach to the concept of conflict, according to (Wall & Callister, 1995) among others, could be related as the dynamic and interactive process, by which an individual or group perceive in their interaction with others, an opposition of their beliefs, interests, goals, values and perceptions of their environment. Included in this literature are emotions, behaviors, attitudes (Thomas, 1992). In this sense, conflict begins when one of the parties perceives that the other has frustrated or is about to frustrate one of its interests or objectives. This possible incompatibility can lead the parties to different levels of conflict, from simple misunderstandings to aggression or destruction of the other party. There are several classifications of conflicts. For example, task or relational conflicts. The first is related to differences or disagreements of the members of a group, in ideas, opinions about performing a certain task. The second is associated with personal discrepancies and incompatibilities in values, personal and family norms, ideas or tastes. In a more disaggregated way, the classification of conflicts according to (Hellriegel et al. 1999) would be: procedural, affective, goal and cognitive conflicts, as shown in Tables 1 and 2, the latter including the levels of intensity. Conflicts are associated with the fact that the parties become emotionally involved, generating feelings of threat, hostility, anxiety, tension or distrust. Authors such as (Van de Vliert & Euwema, 1994) mention that conflict management behaviors are cooperation and competition. Both are broken down into two. Those related to cooperation are active, i.e., non-confrontation (avoidance and servility) and negotiation (accommodation and integration). In the case of competition, they are divided into direct or indirect struggle.

Table 1 TYPES OF CONFLICTS								
	Concept							
	Occurs when the goals and values of one individual/group are incompatible with those of another							
Of Goals	individual/group							
Cognitive	Information or situations in opposition to the individual (beliefs, values)							
	Interference from negative emotions, such as anger or frustration and arise from lack of							
Affective	ective communication or emotional support							
	Differences in how to carry out the activities or processes where they may take place, lack of							
Of Procedures	clarity in roles and responsibilities							

Source: (Hellriegel et al., 1999)

Table 2 LEVELS OF CONFLICTS								
	Concept							
Disagreements or	Two or more people differ in points of view, where miscommunication and							
misunderstandings	misunderstanding may occur.							
Towards the actions of others, which may lead to defensive or breakaway positions								
Questioning or criticism except for constructive approaches.								
	Inappropriate perception of individuals/groups towards others, affecting issues deeply							
Ethics	rooted in beliefs and values.							
Physical aggressions	Violent actions, immediate intervention with need for rapid intervention							

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Verbal aggressions With the intention of harming by means of hurtful messages

Source: (Hellriegel et al., 1999)

Personality

Authors such as (Robbins, 2004) mention the trait theory as the one that distinguishes leaders from non-leaders by analyzing their personal qualities, an argument that has not had much empirical support. However, if the idea is to identify traits associated with leadership, the results obtained allow for a more encouraging interpretation. For example, some of the traits detected in leaders are ambition, energy, desire to lead, honesty, integrity, self-confidence, intelligence and knowledge (Kirpatrick and Locke 1991). Among the limitations pointed out by (Robbins, 2004) for the predictive power of the trait theory on the type of leadership are the nonexistence of common traits in all situations in which the leader is found and the fact that the traits could be better predicted in weak situations than in strong ones. The difference between the two lies in the fact that strong situations are characterized by the fact that behaviors take place in large institutions or environments where there are important incentives to manifest certain behaviors, with clear expectations and that therefore there are rewards or punishments for this. These are formal organizations with strong cultures. In this case there is little opportunity for the intervention of the leader's innate personality traits. However, in the opposite case, weak situations, it is assumed that the influence of traits may not be relevant in predicting leadership. In any case, the literature does not provide clear results on the direction between causes and effects. Is it possible to achieve leadership through self-confidence or does success as a leader provide me with confidence?

METHODOLOGY

Fuzzy Cognitive Maps

This work uses the methodology focused on Fuzzy Cognitive Maps (FCM). Authors such as (Infante-Moro et al., 2021) mention that this methodology is relevant in the study of knowledge and one of the most used in recent years. The use of FCMs can be carried out in different situations such as the one included in this work, in order to identify and validate the proposed constructs, as well as the causal relationships defined between them. It is therefore a matter of describing, explaining, and reflecting on the proposed model(s) and assisting in decision making.

As mentioned by (Kokkinos et al., 2018) some of the advantages of FCMs according to Ozesmi and Ozesmi (2004) are related to; i) they are well structured to manage the complexity of the objective, such as the one posed by this work, ii) they are able to represent both quantitative and qualitative information obtained both via specialists or stakeholders and interpretative as a result of the literature study, iii) they allow interpretations of the effects of factor changes on the whole system. Thus, it is possible to predict the effects of changes in conflict, personality and environment in the "what if" scenario on leadership types.

FCMs are directed graphs or structures connected by nodes, according to relationships or imprecise rules. These nodes (concepts, events, features) are connected by establishing the relationship or causality (directionality or bidirectionality) and assigning the corresponding

weight (weight matrix). As mentioned, (Kokkinos et al., 2018), according to (Gray et al., 2014) this causality in the representation of cognition through weighted arcs in a structural map is derived from constructivist psychology, which suggests that individuals interactively and collectively construct experience/knowledge by developing internal associative representations that help to catalog, interpret and give meaning to the stimuli and experiences of the environment (Raskin, 2002).

Although FCMs are not a methodological novelty, they continue to gain popularity, as mentioned, in the scientific community (Felix et al., 2019). These authors perform an interesting literature review, on the application of this methodology in different fields, as well as a practical guide to existing software. Likewise, recently (Infante-Moro et al., 2021) mentioned that FCMs have been used in fields as diverse as medicine, marketing, engineering, banking, business, education and technology.

From the point of view of formalization (Felix et al., 2019) summarize FCMs, whose origin is found in Kosko (1986, 1993) from Axelrod (1976), as the relation of a set of four factors (C, W, A, f), where C={C1, C2,...,CM} is the family of concepts M modeled from fuzzy sets, being W: C x C with values [-1,1], the matrix containing the weight wij ϵ [-1,1] assigned to each pair of concepts (Ci, Cj). The value of wij determines the sign and intensity (magnitude) of the edge that connects the concept cause Ci with the concept effect Cj. The function A:C \rightarrow A_i^((t)) computes the degree of activation Ai ϵ R of each concept Ci at the discrete time step t={1,2,...,T}. The interpretation of the causal weight wij between two concepts Ci, Cj is as follows:

- If wij > 0, then an increase(decrease) in the concept Ci will produce an increase(decrease) on the concept Cj with intensity |wij|.
- If wij < 0, then an increase(decrease) in the concept Ci will produce a decrease(increase) on the concept Cj with intensity |wij|.
- If wij = 0 (or very close to 0), this denotes the absence of causal relationship from Ci on Cj so there is no causal edge in the graph.

The Change of State is related to Equation 1.

$$A_i^{(k+1)} = f((A_i^{(k)}) + \sum_{j=1; j \neq 1}^N w_{ij} + (A_j^{(k)}))$$
(1)

Where $A_i^{(k=1)}$ is the value of the concept C_i in step K+1, $A_j^{(k)}$ is the value of concept Cj in step k, W is the weights or interaction matrix. f is the threshold function, which provides the transformation, related [-1,1]. Like (Erkan & Uygun, 2020) among others, the sigmoidal function is used in this work, according to equation 2.

$$f(x) = \frac{1}{1 + e^{-\lambda x}} \tag{2}$$

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Where x is the value from equation (1). λ is the slope of the sigmoidal function. The value of λ can change according to the decision maker. Following Kosko (1993) increasing or decreasing trends can be observed more easily in the case of the sigmoidal function.

According to (Erkan & Uygun, 2020) once the process structure of the concepts to be discussed below is defined, the steps are as follows;

Step#1. Determine the vector $A^{(k)}$ showing the initial system.

Step#2. Run equation 1 and 2 to obtain $A^{(k+1)}$ after certain time.

Step#3. Obtain $A^{(k+1)}$ as the new vector $A^{(k)}$ in the new iteration.

Step#4. Repeat steps 2 and 3 until $A^{(k+1)} - A^{(k)} < 0.001$.

The value $A^{(k+1)}$ ound in each iteration shows the state of the system with respect to the activation values defined by the decision maker.

The simulation is performed until the FCM reaches a fixed stabilization convergence point, a limit cycle or chaotic attractor depending on the initial vector.

Functionally, the phases proposed by (Infante-Moro et al., 2021) have been closely followed. Definition phase; consisting of the identification and definition of the concepts involved in the model. The concepts have been extracted from a first visualization of the series and study of the literature in theory form. Initiation phase; where the relationship between the concepts is established. Of the three ways mentioned by the authors to carry out these relationships i) expert opinion, ii) use of augmented Cognitive Maps, and iii) historical data from previous experiences. A hybrid form between the first and second options was used, since the third option could not be used due to the absence of works. Based on a review of the literature associating the concepts addressed and different meetings with experts (psychologists, economists, audiovisual media specialists), the interrelationships were established and, using different maps and adjacency matrices, results were simulated until the most suitable one was found, as mentioned above. The multidisciplinary nature of the field of organizational behavior (social psychology, anthropology, communication, sociology, among others) as well as the presence of different forms of analysis (individual, group or organizational system) presupposes an enormous complexity, which we have tried to link to the opportunity of associating different fields in the analysis approach. Execution phase; for the elaboration of the model and its validation, the FCM and FCMapper packages of the R software were used, as well as the online mentalmodeler software. The classification of the nodes or variables according to the literature in this field has been based on transmitter or driver variables, receiver, or response state variables and ordinary or factor variables, which are both receivers and transmitters.

Social Network analysis

In this section, we present the main results obtained. It begins with a content network analysis of concepts directly from the episodes of the series. Subsequently, the process of measuring and identifying the factors considered as Personality, Conflict and Leadership is discussed. Finally, the model to be simulated that relates the mentioned factors is shown.

Measurement of conceptual content

The viewing of each of the episodes of the first season was done systematically, playing several times and pausing and fast-forwarding through the episodes, capturing scenes and dialogues. The objective is to form a reliable level of information at a global level as a micro scene or image, sequence by sequence in a fractal way, i.e. with an invariant structure through all changes of scale. In this sense, network analysis was used to understand the relationships and interaction of the protagonists.

The narration of the episodes of the series is not the main interest of the work, but to identify and document the theoretical concepts to be able to explain and interpret them, associated with leadership, personality and the conflicts that take place. It is therefore a question of using the almost twelve hours of the series as a test laboratory. In any case, a brief synopsis of the series could be that eight robbers take hostages in the FNMT. Their strategy is to make money, a goal they achieve. For this, their leader "The Professor", who has previously carried out a very rigorous planning and has recruited and trained the robbers, is the only one who remains outside the FNMT, connected via analog telephone and installed television cameras, with the rest of the robbers.

Figure 1 shows a network analysis of the concepts that appear in the narrative of the first season of the series about each of the characters. An adjacency matrix was created for this purpose, according to the networks created by episodes, by the procedure already described. The use of the PageRank algorithm provides the structure shown in the figure. Other measures of centrality, such as degree, median and others, did not provide an adequate interpretation.

RESULTS

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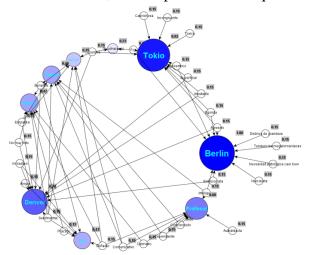
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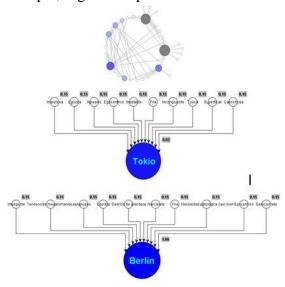
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Source: own elaboration
FIGURE 1

SOCIAL NETWORK ANALYSIS OF THE CONCEPTS APPEARED BY EPISODES OF THE SERIES

As can be seen from the node size (diameter) and the size of the node label, the protagonists Berlin, Tokyo, Denver and the Professor, with values (rescaled value, automatically to unity) of 1, 0.92, 0.70 and 0.60, respectively, are the most mentioned with some kind of conceptual assignment. As an example, Figure 2 captures a zoom on Berlin and Tokyo.



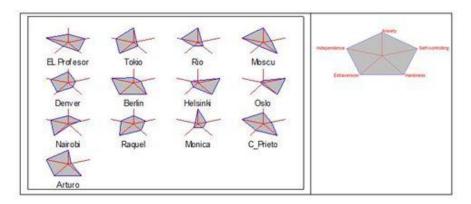
Source: Own elaboration
FIGURE 2
ZOOM OF FIGURE 1 ON BERLIN AND TOKYO

MEASUREMENT OF THE FACTORS CONSIDERED IN THE MODEL

Personality

Personality was measured using the 16PF-5 factorial personality questionnaire. The simplified version related to Extraversion (Introverted socially inhibited-Extraverted socially participative), Anxiety (Imperturbable with little anxiety-Perturbable with much anxiety), Hardness (Open-minded, receptive, intuitive-Hard, firm, inflexible, hard, objective), Independence (Accommodating, accepts, accep

Figure 3 shows the personality profile of the eight robbers together with the police (Raquel, C. Prieto) and hostage (Monica and Arturo) protagonists. The graphs are based on the evaluation using multivariate glyphs.



Source: Own elaboration
FIGURE 3
PERSONALITY PROFILES OF THE PROTAGONISTS

As can be seen in Figure 3, the personality profiles present a high degree of heterogeneity. For example, the Professor on the upper left has a strong saturation in Independence, Self-Control and Hardness and low saturation in Extraversion or medium saturation in Anxiety. This is definitely someone who is clearly independent, critical, confrontational and analytical. In addition, self-controlling, containing his impulses in front of others. He is hard and inflexible although not in the extreme. His level of Anxiety is medium and he is participative and communicative when it serves his interests, with doses of shyness in general. In this sense, Figure 4 shows different scenes of critical moments where it is possible to intuit some of the identified traits and others such as Anxiety and perhaps Self-Control in the extreme of saturation.



Source: Series La Casa de Papel. Episode 5
FIGURE 4
SCENES OF THE PROFESSOR AT THE CAR SCRAPYARD

These are scenes that reflect the Professor's face in episode 5. In particular, Tokyo forces Berlin to telephone the Professor, with the intention of communicating the order he gave to execute a hostage. Berlin also pressures the Professor to carry out a punishment for his own behavior (top left scene, looking at the communication screen), which he does later. In addition, Helsinki does not clean up the tracks of a car abandoned in the junkyard, leaving a loose end that could compromise the project. For this reason, the teacher has to do it himself. In this case, the planning process of the teacher, who must intervene quickly, is significantly altered. The images capture a process of extreme anxiety, whose different critical moments, the teacher manages to save, thanks to his self-control and the qualities and skills that are assumed in a Transformational leader. This topic will be addressed later. Other profiles such as Tokyo and Berlin present high levels of Extraversion. In the case of Tokyo, disturbable with a lot of anxiety and the opposite in the case of Berlin.

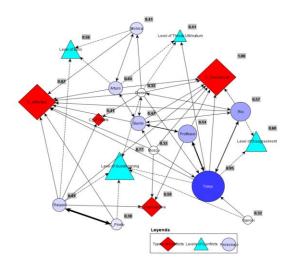
Conflicts

As an example, Figure 5 shows different scenes that reflect different types of conflicts and levels. Conflicts of affective and interpersonal type, of goals and procedures between Raquel and C_Prieto, (images 1 and 2) that take place in different episodes throughout the first season of the series. Also in the characters Denver and Arturo or Berlin and Tokyo with extreme conflict levels of Threats and ultimatum (scenes 3 and 5). Scene 4 picks up the procedural conflict between Tokyo inside the FNMT and the Professor outside through the camera.



Source: Scenes from the series La Casa de Papel Episodes 1 to 3
FIGURE 5
SCENARIOS OF TYPES OF CONFLICTS AND LEVELS OF CONFLICT

Figure 4 shows the network of conflicts and their levels accurately observed in the first three episodes of the first season. It is a tri-modal network, Conflicts-Levels-Characters. Each main node of the network is related to a geometric shape and color; Conflicts with rhomboidal shape and red color, conflict level light blue triangle and characters circles in blue. The measure of centrality used was Page Rank. The most representative node was the one related to the Procedural and affective conflict, whose rescaled values were 1 and 0.97 respectively, where a representative percentage of characters are associated. In this sense, the thickest edges connecting Raquel -C_Prieto; Tokyo-Professor; Tokyo-Rio or Berlin-Professor, reflect the level of intensity in relation to this typology Figure 6.



Source: Series La Casa de Papel Episodes 1 to 3 FIGURE 6 NETWORK OF CONFLICT TYPES AND LEVELS

The edges in broken lines are related to the association between the characters and the level of conflict, where the triangular node referring to "questioning level" illustrates the presence of conflict. Finally, the node referring to Tokyo shows the representativeness in terms of conflict Table 3.

Table 3 IDENTIFIED LEADERSHIP STYLES													
	Types of Leadership	EL Profes or	Tok io	Ri o	Mos cú	Den ver	Berl in	Helsi nki	Os lo		Raq uel	C_Pri eto	Nair obi
Ta													
	Charisma	√											
	Inspiration comunication	V											
	intellectual stimulation	V											
	Personalized interest	V								V			
	Transaccional												

	Contingent	 ,	 ,							Ι,		,
	rewards	V	√				√			√		1
	Management by exception	excepti on (active										
	(active))	$\sqrt{}$				\checkmark					$\sqrt{}$
	Management by exception (pasive)	V										V
	Política de no intervención											
Ta	Blake-											
	Laissez-faire											
	Avoids conflicts				V		V					
	Requests approval			V		V	V	√	V			
	Makes jokes			$\sqrt{}$		V	√	V	√			
	Autocratic											
	High interest in the objectives						√	√	V		√	
	Low interest in people						V	V	V		1	
	Democratic High interest											
	in the objectives	√			V					√		V
	High interest	$\sqrt{}$			$\sqrt{}$							$\sqrt{}$
T ^a R	High stress=>		V	$\sqrt{}$		1	V			1		
T ^a	Hersey y											
	Style function	V										V

Source: own elaboration

For example, two leadership styles are identified in the Professor, the one related to Blake Mouton Democratic and the Transformational. The latter implies that the Professor encourages and motivates his followers, continually conveys his vision and high level of planning. He bases his vision on the effort required and the reward expected from it. He shows high interest in the objective and pays attention to the person, his followers, so he could also be identified with the Blake-Mouton Democratic style. In Figure 7, as an example, different scenes from episode 6 are shown, suggesting the above argumentation.

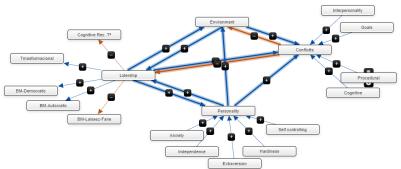


FIGURE 7
SCENES RELATED TO THE PROFESSOR AND HIS GROUP

MODELING

Static Modeling

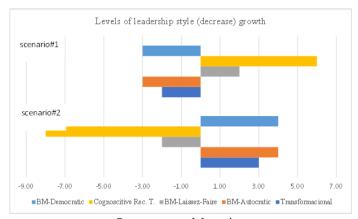
In principle, the absence, unless there is an error, of methodological approaches in the direction of this work, means that it is not possible to establish the current state of the values of the ordinary concepts; Environment, Conflict, Personality and Leadership, considered as receiving and transmitting nodes, as well as the rest of the drivers or conducting nodes that influence the ordinary or receiving ones, which only receive the information that are part of the model in Figure 8. For this reason, following (Kokkinos et al., 2018), for the field of analysis of the modeling of the acceptance of the location of a refinery by the institutional stakeholders, the steady state of the model is considered as the initial scenario of the analysis (time invariant state).



Fuente: www.mentalmodeler.org (online Access 21.04.2023) FIGURE 8

CONCEPTUAL MODEL

In order to evaluate and draw conclusions from the simulations, two scenarios scenario#1 and scenario#2 have been proposed in comparison with the steady state. In scenario#1, all the so-called driver concepts have a value of 0.1 and the ordinary ones have a value equal to 1. On the opposite side, scenario#2 is set with all the driver nodes having a value of 1 and the ordinary ones having a value of 0.1. Finally, the receiving concepts will be influenced by the model. Figure 4 shows the result of the modeling of the two scenarios. The changes in the parameters produced imply significant variations in the leadership styles. For example, the changes in sign of the leadership styles, in accordance with the proposed model, with percentage increases/decreases, going from 6% to -8% Figure 9.



Source: own elaboration FIGURE 9
TWO SCENARIOS

Fundamentally, leadership based on the Cognitive Resources Theory is the one that experiences the greatest variation. As mentioned above, a high percentage of characters in the series identify with this style, where high doses of stress cause important reductions in rationality and therefore erroneous decisions. In the rest of the leadership styles, the Laissez-Faire style maintains its same value in absolute terms, with +/-2%. In the rest of the styles, the changes vary in differences of +/- 1%.

Dynamic modeling

According to the exposed methodology, through equations 1 and 2, the FCM package of the R software, allows to perform the model validation. Following closely to (Dikopoulou et al. 2018), FCMs have been used in scientific fields as it was mentioned. The assumed scenario has been variations in the environment and conflict. That is, varying the level of conflict in a very complicated environment what would be the effect of the model concepts? This means, changing the values of the environment and conflict concepts leaving the rest constant. Simulations were also carried out by varying one of the two concepts mentioned, with similar results. The values of the convergent vector until reaching the iterations (9) of the convergence level and therefore of the change of trend, as shown in figure 9 and the attached table. The interpretation could be the following. The worsening of personal interactions due to conflicts in complex environments, mean that leadership styles increase significantly, especially in the case of Transformational

Leadership, BM_Autocratic and BM_Democratic respectively. Greater leadership actions according to the concept of these are related to carrying out management strategies that mitigate the turbulent and inauspicious impact to achieve the objectives. The rest of the model concepts are also affected, especially personality traits centered on Anxiety and Extraversion/Introversion. To a lesser extent conflict of any kind (Interpersonal, Goals, Procedural and Cognitive) which could suggest a mitigation of these Figure 10, Table 4.

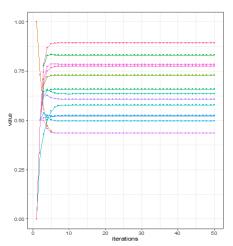


FIGURE 10 SIMULATION RESULTS USING DYNAMIC MODELING

Table 4 SIMULATION RESULTS USING DYNAMIC MODELING TABLE							
Tipo Nodo	Conceptos	Punto de Convergencia					
	O_Lidership	0.6072					
Ordinary	O_Conflicts	0.435					
	O_Environment	0.7846					
	O_Personality	0.7757					
	C_Interpersonal	0.8943					
	C_Goals	0.7294					
	C_Procedural	0.8319					
	C_Cognitive	0.659					
Transmitter	P_Self controlling	0.6344					
	P_Hardiness	0.5775					
	P_Extraversion	0.4965					
	P_Independence	0.5248					
	P_Anxiety	0.5217					
	L_Cognitive	0.6072					
	L_BM_Laissez-F	0.435					
Receiver	L_BM_Democratic	0.7846					
	L_BM_Autocratic	0.7757					

L_Transformacional 0.8943

Source: own elaboration

CONCLUSION

This paper analyzes organizational behavior, in terms of the identification of personality traits, conflicts and leadership styles and their interrelationships through the protagonists of the Netflix series La Casa de Papel. For this purpose, the methodologies of network analysis and Fuzzy Cognitive Maps are used. The main results have allowed the establishment of different leadership styles such as those related to Blake Mouton, Cognitive Resource Theory or Transformational Leadership. As well as the identification of goal, procedural, affective and cognitive conflicts and the five main personality traits. The simulation and the scenarios proposed, to establish the interrelationships of the concepts, allow us to conclude the following; i) the final validated model is reasonably associated with the perception of the concepts proposed and their interrelationships of the characters of the series used as an analysis laboratory ii) the proposed changes of scenarios in the values of the activation vector present a clearly stable behavior.

The use of this type of methodologies and especially the use of audiovisual media such as television platforms or cinema in the study of concepts and their interrelationships in the field of management, communication and education among other disciplines is a motivational tool in the teaching-learning process for teachers and students, which undoubtedly results in the performance and fulfillment of objectives.

Among the limitations of this work is the subjectivity inherent to approaches such as the one discussed in this paper, where measuring and evaluating multidisciplinary concepts such as the level of conflict and its classification or the type of leadership is not a simple task. Possible extensions could be aimed at complementing the information compiled by visualizing the authors' images with primary information obtained from surveys, after screening them.

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