RESEARCH ARTICLE

AUDIENCE RECEPTION ANALYSIS OF PUBLIC SERVICE TELEVISION NEWS IN MOROCCO.

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Abstract

Television is the main source of information, among other forms, that many audiences rely on to be informed. It has significant effects on its audiences. However, the nature of these effects is not yet fully explored. Viewers were invited, in groups, to watch three television news items. The findings indicate that participants produced diverse interpretations and that males constructed more complex interpretations than females. Moreover, the results revealed that there was a weak correlation between age and television news interpretation. Also, prior knowledge and involvement did not contribute much to explain variances in the dependent variable.

Introduction:

We live in a society that is saturated by various means of mass media on which different audiences rely to be informed, educated and entertained, among many other things. Thus, it is no surprise that unveiling the relationship between the mass media and mass audience has triggered a great scholarly effort in mass communication research. This study addresses the question of television news effects by focusing on the way Moroccan viewers make sense of television news immediately after watching it, and how they, actively or not so actively, reconstruct television news meaning. By reconstructing and making sense of television news, viewers become active agents by taking in the news information, storing it in their minds, processing it and, then, producing their own subjective interpretations. These reconstructions determine how the viewers interpret television news. The findings from this undertaking will certainly contribute to a better understanding of the way Moroccan viewers, stemming from different socioeconomic backgrounds and having various individual characteristics, interpret the Moroccan public service television news.

The following are the research questions and hypotheses that this paper addresses:

Research question 1: Do the viewers’ interpretations differ from one another in terms of size?

Research question 2: Is there a significant difference in news interpretation between males and females?

Research question 3: Is there a significant relationship between ‘age’ and the way viewers interpret television news?

Research question 4: Do the audiences’ prior knowledge and involvement explain the way they interpret television news?

Hypothesis 1: It is hypothesized that the viewers’ interpretations differ from one another in terms of size.

Hypothesis 2: It is assumed males construct more complex interpretations than females.

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Hypothesis 3: It is assumed that the level of complexity of the news interpretations is not highly correlated with the viewers’ age.

Hypothesis 4: It is assumed that the more prior knowledge audiences have about a specific topic and the more involved they are the more complex their interpretations are.

Literature review:

The Factors Affecting Television News Interpretation:

Cognitive factors:

Cognitive psychology is a fertile soil in which cognitive theories that are concerned with studying human behavior have been thriving. Rooted in cognitive psychology, cognitive theory comes as an alternative to the behavioristic stimulus-response approaches in psychology. Its subject matter is the mind and how it works. In cognitive theory, it is of paramount importance to distinguish between the cognitions and emotions or affections. Whereas cognitions are reasonable and rational, emotions are irrational and physiological.

News processing:

Cognitive psychologist scholars have been concerned with the media active audience research and the way individuals process information. Hoijer (1989) states that, “cognitive processing of a television program is a dynamic and complex process that displays great variability” (p. 200). This means that, information processing is a complex cognitive and psychological process that is mainly concerned with taking in information, processing it, storing it and connecting the new information to the individual’s prior knowledge to interpret a particular news item. Audiences are active processors of media content, if they are able “to compare the external information to [their] existing structure of beliefs and values” (Wright, 1973, p. 54). Thus, reacting to a media message guarantees an active processing of that content, whereas the absence of that reflection indicates a passive processing on the part of the audience. Importantly, “information-processing theory uses mechanistic analogies to describe and interpret how each of us takes in and makes sense of the flood of information our senses encounter every moment of each day” (Baran & Davis, 2012, p. 263).

Prior knowledge and news interpretation:

Audiences’ prior knowledge is, according to the literature, the most influential factor that affects their interpretation of the news. This makes of cognitive processing a complex procedure as audiences’ interpretations are based on various and interrelated factors, like the individual’s stock of knowledge, the manner in which it is organized in the mind, and the way in which audiences make use of this knowledge and relate it to the existing meaning of the news to interpret it. According to the literature, audiences’ daily experiences serve as a reservoir in which knowledge is accumulated (Cohen, Adoni & Bantz, 1990; Neuman, Just & Crigler, 1992). They make use of their prior knowledge to learn and interpret various news stories they encounter in different media outlets (Findahl & Hoijer, 1985; Hoijer, 1989; Iyenger, 1990). Viewers’ background knowledge is considered, by many scholars, the main variable that determines how much of the news item or items respondents attended to can recall. For example, according to Findahl and Hoijer (1985), audiences’ prior knowledge and the level of retention are closely related, as the lower the audiences’ level of background knowledge, the lower the level of recall and the higher the degree of prior knowledge, the higher the level of news retention.

Affective factors:

Involvement and News Interpretation:

The inception of the uses and gratifications theory in the 1970s has put an end to the idea that audiences are passive dupes that blindly accept whatever content the media offer them. It emphasizes that audiences have, rather, become active agents that select among media messages the ones that gratify their needs. This study focuses on ‘involvement’ as an important affective factor that influences news interpretation. Although there is no single, agreed upon and precise definition of the word ‘involvement’, the majority of scholars agree on ‘relevance’ or ‘connectedness’ as the major theme that characterizes the relationship between the individual and the product or media content. Importantly, the more relevant the topic of the news item is to the audience, the closer the relationship between the audience and the news topic (Findahl & Höijer, 1985; Hendriks Vettehen, Hietbrink & Renckstorf, 1996).

In short, according to the vast array of literature about the cognitive and affective structures that affect news processing, audiences use both factors to process and make sense of the news (Levy, 1978b). For many media and
communication researchers, audiences’ previous knowledge is considered the main variable that largely influences the way they interpret the news. Similarly, affective factors including attention and involvement are thought of as other important factors that have a direct impact on the audiences' processing of the news media, as for Al-Menayes and Sun (1993), “cognitive processing is highly complex, using multiple sources for interpreting the news, and that affective processes make it even more diffuse” (cited in Schaap, 2009, p. 31). Indeed, in the classical studies about news interpretation, researchers concentrated on comprehension and recall to measure how much of the news audiences can understand and retrieve, based on the news content and what the researcher considers right or wrong. Yet, the way audience news reception is addressed, according to the literature, has been criticized as in discarding the information that does not conform to the news content which the researcher considers ‘incorrect’, researchers discard important information. Consequently, looking for new methods to study audiences’ news reception is of paramount importance, one of which is protocol analysis.

Protocol Analysis:-
Protocol analysis is a data gathering research technique that is used mainly in cognitive psychology to capture and elicit verbal protocols from research participants. By being a cognitive processing approach, this technique is concerned with how information is manipulated and transformed. It also plays a cognitively important role in connecting information of the short-term memory to the one stored in the long-term memory. In protocol analysis, there are two main techniques that can be used to capture respondents’ interpretations. The subjects verbalize their thoughts at the moment they are watching, and it is called the thinking-aloud method or they verbalize their thoughts immediately or shortly after exposure, and it is named the thought-listing technique (Schaap, Renckstorf & Wester, 2005).

The structure of interpretation: The concept of interpretive complexity:-
Media and communication researchers have been concerned with the impact that television news has on its viewers. To study how the news influences its viewers, it is necessary to investigate the meaning they construct from the news information they attend to (Findahl, 1998; Gunter, 2001; Renkstorf & Wester, 2001). The viewers’ constructed meaning is a complex entity, because to make sense of a television news item requires attending to it, taking in information, processing it and reproducing meaning based on what viewers have seen and heard, as Schaap, et al. (2005) explain, “to make sense of a news item, viewers restructure it in their minds, elaborate or simplify it, and integrate parts of it into their stock of knowledge, while other parts are seemingly discarded” (p. 269). Thus, to examine how people interpret the news is complex and problematic, as studies about this issue are scarce (Gunter, 2001; Schaap, Renckstorf & Wester, 2001). The concept of interpretive complexity focuses on the structure of the interpretation not on its content (Schaap et al. 2005), which means, investigating the way interpretations are structured and examining them from the viewer’s perspective not assessing whether viewers’ interpretations are right or wrong by comparing them to the journalist’s or the researcher’s meaning. More importantly, interpretive complexity refers to the number of elements that the interpretation is constituted of called ‘differentiation,’ which is concerned with the number, type and the range of elements used in the interpretation; interpretations are highly differentiated if they contain more elements and less differentiated if they are made up of fewer elements (Linville, 1982; Luskin, 1987). Moreover, interpretive complexity refers also to the relationship and the degree of connectedness between these elements in the interpretation named ‘integration’. It is concerned with how these elements are connected to each other in a micro-integrated and a macro-integrated level (Schaap et al., 2005)

In short, protocol analysis is an important cognitive processing approach that is essentially based on investigating the viewers’ verbalized protocols, by voicing out what is going on in their minds, while or immediately after being exposed to a specific media. To capture the viewers’ interpretations of the two public service television news, 2M and Al Oula, for the current study, the thought-listing technique is used. The viewers’ interpretations are analyzed according to the number of elements, elements types (differentiation), relations between these elements and the different social domains (integration) to which the viewers refer in their interpretations to understand who interprets the Moroccan television news in which way.

Methodology:-
The ultimate objective of the current study is to examine the way Moroccan television news viewers interpret the two public service television channels’ news, 2M and Al Oula, and investigate whether viewers, with various characteristics, interpret television news in identical or different ways. The broadcast news under study is edited, so that after each news segment the screen turns black to allow participants to freely verbalize their thoughts. In this
study, the data gathering involves a three-step process: viewers’ interpretations are obtained and audio taped from groups of participants after getting permission from them. Then, the participants’ personal characteristics are assessed via a written questionnaire before the verbalization of thoughts procedure. Moreover, issue-specific characteristics are also assessed via a second written questionnaire as well; in between the participants watch the news items under study and voice their interpretations. Indeed, this undertaking examines the relationship between ‘news interpretation’ as a dependent variable and a set of independent variables like age, gender, audiences’ prior knowledge and involvement.

### Sampling:
Sampling is one of the most essential steps in the research process, as “it helps to inform the quality of inferences made by the researcher that stem from the underlying findings” (Onwuegbuzie & Collins, 2007, p. 281). To select, from a large population, a representative sample is fraught with many difficulties and uncertainties as it has a direct impact on the quality of the data gathered and the conclusions drawn from the analyzed data. In this study, the data gathering method, the verbalizations of thoughts, is a demanding and a time consuming procedure in the data gathering process and more so in the analysis phase. To get a sample of individuals with remarkable differences in their background knowledge and motivations about each news item helps to examine similarities and differences between the viewers’ interpretations. This study will opt for a purposive homogeneous sampling, as it “is the recommended strategy for focus group studies,’ because ‘groups made up of heterogeneous people often result in representatives of the “dominant” group monopolizing the focus group discussion” (Mertens, 2010, p. 321). Given the demanding nature of the study, both in terms of data gathering and analysis, the number of participants included is limited to 100 (N = 100). Questionnaires and focus group discussions are used as data gathering instruments. The groups display a great diversity in knowledge, involvement, interest as well as age, gender and education. The aim of including participants of various personal and issue-specific characteristics is to have some respondents, more than others, who are highly knowledgeable and involved, at least, in one of the three news items under study, in order to get an equal distribution of knowledge among all the focus group participants. The choice of the news items to be examined is based on purposive sampling as well: Two news items from Al Oula and one news item from 2M, about three different issues: ‘Abortion’, ‘human development’ and ‘crime’. Concerning the topic about ‘abortion’, the nursing school trainees and university students from the Islamic studies department are targeted; parents and young adults are also concerned with this issue. Regarding the news item about ‘human development’, associations working on the human development projects and the people benefitting from ‘National Cooperation’ projects are included. Moreover, concerning the topic about ‘crime’, university students from the department of sociology and a group of homeless people are targeted. After the data gathering process the number of respondents is reduced from 100 (N = 100) to 94 (N = 94), as three of the respondents’ verbalizations are not well tape recorded, which makes it hard to figure out what they said. Therefore, the total number of the questionnaires is limited to 94 (N = 94), and the number of analyzed interpretations is 282 (N = 282).

### Measurement and Registration:
Participants are invited, in groups, to watch the news broadcast and, then, individually, verbalize their thoughts. The news broadcast is an edited video recording that is extracted from 2M and Al Oula’s evening news. It runs at a length of 08:35 minutes, including the number of breaks, intros and outros. A black screen and a pause are inserted by the end of each news item to let participants verbalize their thoughts. Moreover, the news items are carefully selected, so that the issues in the news cannot be affected by sudden changes that may take place in the period between the time the news item is broadcast and the time of the study, as any change can influence the participants’ interpretations. Table 1 illustrates the content of the three news items under study:

| News item       | Description                                                                 | Length (min/sec) |
|-----------------|------------------------------------------------------------------------------|------------------|
| Intro           | Voice + tune                                                                | 0:15             |
| Abortion        | - The king ordered the two ministers to investigate the issue of abortion.   | 2.00             |
| Human development| - Integrate the ‘creative’ women in everything that is artistic and traditional.  |
|                 | - Promote local and traditional products and ensure the success of their marketing. | 2.05             |
| Crime           | - The existence of a large number of vagrants and beggars in the             | 3.50             |
Capturing Interpretations:
To record the participants’ interpretations of the three news items under study, the thought-listing technique is used. After each news segment, the screen turns black, and a pause is inserted, so that participants can verbalize their thoughts. When all the participants’ interpretations are captured, the audio tape resumes and the same procedure applies to the two remaining news items. Participants are informed that they are going to watch a news program containing three news segments, upon which they are supposed to react. Instructions are clearly enunciated to the participants, and they are informed that the focus group discussions will take between 45 and 60 minutes. The meetings are held in a neutral setting, like a school, café, youth center etc. where the focus group participants are served something to drink for those who want to, or get paid for the task if they desire to; the utmost goal is to make participants feel comfortable and at ease.

Results:
The Size of Interpretations:
This section intends to analyze the volume of the viewers’ interpretations. To know whether they vary from each other or not, we, first, have to, relatively, examine their size by looking at the number of words that the viewers’ interpretations are composed of. The analysis includes 94 interpretations of three news items about ‘abortion’, ‘human development’ and ‘crime’. The verbalizations in which the viewers said nothing are excluded from the analysis. Some of which are: “I mean”, “That’s what I see" and non-words like “ahh…”, “hhh…”, “mm…,” etc. the total number of words that the viewers” interpretations of the three news items contain is 28193; a very rich database indeed. Table 2 presents a summary of the descriptive statistics about the size of interpretations.

Table 2: Number of words used in the viewers’ interpretations.

|       | ENP      | Ab.  | Hum. dev. | Cri.  |
|-------|----------|------|-----------|-------|
| N     | 28193    | 6805 | 7928      | 13460 |
| Mean  | 300.9894 | 72.39| 85.40     | 143.19|
| SD    | 333.8389 | 69.33| 111.652   | 184.479|
| Minimum| .00      | 0    | 0         | 0     |
| Maximum| 1833.00  | 340  | 624       | 869   |
| Skewness| 2.156     | 1.513| 2.345     | 2.110 |
| Kurtosis| 5.442     | 2.619| 7.146     | 4.567 |

The results indicate that the participants’ interpretations differ from one another in terms of size. The total number of words that the participants used to verbalize their thoughts about the news item about the issue of ‘abortion’, for example, is N = 6805 (M = 72.93, SD = 69.330). Some interpretations are very small; some others are enormously large, while others fall between these two extremes. The range between 0 and 340 (minimum = 0, maximum = 340) indicates that there is a great diversity between the participants’ interpretations. Nevertheless, addressing the participants’ interpretations in terms of the number of words used is far from explaining the nature of the variety between interpretations. Thus, classifying the elements that each interpretation is composed of in terms of the elements, element types, relations and the socio-cultural domains to which these elements refer gives a clearer idea about how much one interpretation is different from or similar to another.

The components of interpretations:
Analyzing the size of interpretations indicates that they are rich and diverse, but it is unable to explain the nature of this diversity. This section addresses the components of the viewers’ interpretations. It explores whether the participants’ interpretations are similar to or different from each other in terms of components by describing the elements, types of elements, relations and domains the viewers used in their interpretation of the three news items under study.
Elements of interpretations:-
The first structural unit of analysis in studying the participants’ interpretations is the elements that these constructions are constituted of. The participants used a total of 2201 elements in their interpretation of the three news items. Due to the great number of elements, a full description of every single element is not possible. Therefore, the analysis is confined only to the group of elements referring to ‘actors’.

The three news items are constituted of many different actors. Some of them are mentioned in the news items but others are drawn from the viewers’ prior knowledge. In their interpretations, the viewers used different actors to give meaning to the news items under study. The news item about ‘abortion’ contains 60 actors, some of them are: king, ministers, governor, people, doctors, sociologist, experts, citizen, Muslims, etc. The news item about ‘human development’ contains 62 actors, such as, the president, Viewer and receiver, entrepreneur, a professor, family, parents, associations, etc. and the news item about ‘crime’ is composed of 78 main actors, like the minister of youth, Benkirane (the head of the government), beggars, criminals, the police, psychiatrist, Al Wardi (minister of health), specialist, children, terrorist, etc. In sum, addressing the elements that the participants’ interpretations are constituted of reveals, at a first glance, that they are diverse in terms of elements, but investigating the types of elements will further explain the diversity and richness of interpretations.

Element types:-
Investigating the elements of interpretations gives a more specific insight about the way viewers interpret television news than only analyzing the number of words each one of the viewers’ interpretation is composed of. Yet, categorizing and classifying these elements gives a more precise analysis on the types of elements that the viewers use to make sense of the news. Indeed, this analysis enables us to quantify the components of interpretations to facilitate more empirical comparisons between viewers and gives a more precise idea than merely studying the elements. The interpretations in which many elements are used are heterogeneous. What is worth mentioning is that the number of elements used in the interpretation cannot make a difference between viewers, as some viewers can use many elements of the same type, but others can use the same number of elements but of different type (Neuman, 1981). This subsection addresses the types of elements that interpretations are composed of and examines whether these interpretations differ. More precisely, below, a detailed analysis of the element types that the viewers used to interpret 2M and Al Oula’s news is presented, in which the total number of elements, the mean, standard deviation, minimum and maximum of the elements used by the viewers are presented. This gives a clearer idea about whether the Moroccan television news viewers interpret the news in identical or different ways.

Table 3:- Types of elements: news item about abortion.

| Inclusion of            | N  | M   | SD   | Min. | Max. |
|-------------------------|----|-----|------|------|------|
| Actors                  | 59 | 2.93| 2.098| 0    | 8    |
| Acts                    | 136| 4.04| 3.152| 0    | 18   |
| Activities              | 18 | .37 | .672 | 0    | 3    |
| Objects                 | 128| 5.05| 4.906| 0    | 25   |
| Place                   | 18 | .36 | .760 | 0    | 4    |
| Time                    | 22 | .65 | 1.493| 0    | 12   |
| Feelings                | 32 | .72 | .921 | 0    | 3    |
| Attribution of          |    |     |      |      |      |
| Actors                  | 52 | .76 | 1.123| 0    | 5    |
| Acts                    | 160| 2.48| 2.422| 0    | 13   |
| Consequences of         |    |     |      |      |      |
| Actors                  | 16 | .03 | .177 | 0    | 1    |
| Acts                    | 6  | .05 | .269 | 0    | 2    |
| Reasons for             |    |     |      |      |      |
| Actors                  | 21 | .20 | .727 | 0    | 6    |
| Acts                    | 19 | .24 | .634 | 0    | 3    |
| Steps in                |    |     |      |      |      |
| Actors                  | 7  | .06 | .246 | 0    | 1    |
| Acts                    | 0  | 0   | 0    | 0    | 0    |

Note. N = number of words, M = mean, SD = standard deviation, min. = minimum, max. = maximum.
As table 3 shows, the participants use different types of elements in their interpretation of the news item about ‘abortion’, but, numerically, some are more used than others. The most frequently used types of elements are the simple non-abstract ones, which refer to inclusion of actors, acts, objects and the attributes of these elements. For example, among the total number of the 59 actors (N = 59, M = 2.93, SD = 2.098) that the participants used to interpret the news item about ‘abortion’, some viewers referred to none of these actors while some others mentioned a maximum of 8 elements of the total number of actors (min. = 0, max. = 8). Also, the participants used 128 objects as types of elements to reconstruct meaning about the news item about the issue of ‘abortion’ (N = 128, M = 505, SD = 4.906). Some participants used 25 elements as a maximum number of elements, whereas others refer to no objects at all in their interpretations (min. = 0, max. = 25). Moreover, the participants used 160 attributions of acts (N = 160, M = 2.48, SD = 2.422) of which some viewers used a maximum of 13 attributes of acts, whereas others used no attributes at all in their interpretations. Other types of elements like the ones referring to places, time and feelings are remarkably the least prominent elements used by participants, as, for example, the participants mentioned merely 18 types of elements about place and 22 types of elements about time. Indeed, the elements in which the participants make connections and draw conclusions are less used in interpreting the news item about ‘abortion’ than the simple non-abstract elements. For example, as the results show (table 3), in the cause and effect elements, the participants used only a total of 16 actors and 6 acts with a minimum of 0 and a maximum of 1 in actors (min. = 0, max. = 1) and a minimum of 0 and a maximum of 2 in acts (min. = 0, max. = 2). In the reasons and functions of elements, the participants used 21 actors and 19 acts, whereas in the sequence or steps of things, they used merely 7 steps in actors and 0 steps in acts.

In short, classifying the components that the participants’ interpretations are constituted of gives an idea about the elements and element types of each interpretation. The participants’ interpretations, according to the obtained results, reveal a remarkable diversity, as some contain more elements and types of elements than others. Yet, categorizing the participants’ interpretations into elements and element types is not sufficient to easily compare the viewers’ interpretations. Therefore, addressing the relationship between the elements helps in understanding uniformities and differences between the participants’ interpretations on a more abstract level.

**Relations between elements:** As mentioned earlier, more abstract relational elements in which viewers make connections and draw conclusions in their interpretation of the Moroccan television news are less used than the non-abstract simple elements. In the current study, the three types of the relational elements are: cause and effect (this element is a cause of that element/this element is the result of that element), logical (this element is the reason for/function of that element) and sequence (this element is a step in that element). Table 4 illustrates the frequency of the relational elements that the participants referred to in their interpretation of the three news items under study.

| Table 4: Types of relations used by participants in the three news items: frequency of use (94 participants). |
|---------------------------------------------------------------|----------------|----------------|----------------|----------------|
| Cause effect | Abortion | Hum. dev. | Crime | EP |
| N | 28 | 18 | 79 | 128 |
| M | .30 | .18 | .84 | 1.31 |
| S | .602 | .463 | 1.100 | 1.460 |
| Reasons functions | N | 65 | 101 | 140 | 306 |
| M | .69 | 1.07 | 1.51 | 3.27 |
| S | 1.107 | 1.533 | 2.144 | 3.739 |
| Sequence | N | 8 | 6 | 19 | 33 |
| M | .09 | .06 | .20 | .35 |
| S | .281 | .246 | .499 | .634 |

Note. N = number of element types, M = mean, SD = standard deviation, Hum. dev. = human development, EP = Entire program

As the results show, relational elements are not equally used by the participants in making sense of the three news items under study. The reasons and functions of acts, as table 4 shows, are the most frequently used relational elements among participants (N = 306, M = 3.27, SD = 3.739). Viewers attribute a certain cause to a particular act of event (act/cause A is the reason of act/event B). The cause and effect/consequences relations succeeded the logical relations (reasons and functions of acts) (N = 128, M = 1.31, SD = 1.460). The sequences of acts are the most underused among the three relational elements in the entire program (N = 33, M = .35, SD = .634). This indicates that, most interpretations that contain relational elements are, on average similar, as they refer to causal and
relational elements (act/event A happens because of B). Yet, interpretations remarkably vary in terms of the relations they contain. This variety manifests in the differences in standard deviations of types of relations in the three news items.

To conclude, the participants’ interpretations display great diversity regarding the types and number of relations. In some, no relations are used at all as the viewers have no thoughts to verbalize or refer only to simple non-relational elements to reconstruct the news meaning. Yet, in some others, the participants use relational elements in different degrees, as some contain more relational elements than others. But, overall, the reasons and functions of acts are the most frequently used types of relations in the interpretations of the three news items under study. Indeed, a further comprehensive examination of the socio-cultural domains to which the participants refer in making sense of the Moroccan television news is of utmost importance to assess similarities and differences between the viewers’ interpretations.

Domains:
Examining the types of elements helps in understanding similarities and variations in the participants’ interpretations of the Moroccan public service television news. Yet, investigating the different socio-cultural domains that these elements refer to further explains variances and uniformities among viewers’ interpretations on a more abstract level than classifying the elements. If an interpretation contains two or more domains, the viewer resorts to his/her background knowledge about different social areas to make sense of a particular news item. In so doing, the viewer connects one domain with other domains, and, hence, produces a cohesive interpretation. The domains that the participants refer to in their interpretations are classified according to 15 types as table 5 shows:

| Table 5: Frequency of domain use in participants’ interpretations of the three news items. |
|---|---|---|
| Abortion | Hum. dev. | Crime | Entire program |
| N | M | N | M | N | M | N | M | SD |
| Politics | 89 | .95 | 25 | .27 | 63 | .67 | 177 | 1.88 | 2.34 |
| Media | 46 | .49 | 54 | .57 | 65 | .69 | 165 | 1.75 | 2.78 |
| Agriculture | 0 | .00 | 15 | .16 | 22 | .23 | 37 | .39 | 1.28 |
| Environment | 1 | .01 | 2 | .02 | 7 | .07 | 8 | .10 | .34 |
| Economy | 21 | .22 | 237 | 2.52 | 133 | 2.45 | 391 | 5.19 | 4.58 |
| Crime | 84 | .91 | 20 | .21 | 124 | 2.38 | 228 | 3.51 | 3.21 |
| Health | 139 | 1.48 | 9 | .10 | 50 | .53 | 198 | 2.10 | 1.98 |
| Education | 8 | .09 | 58 | .62 | 50 | .53 | 116 | 1.23 | 1.89 |
| Science | 24 | .26 | 13 | .14 | 24 | .26 | 61 | .64 | 1.35 |
| Family | 30 | .32 | 22 | .23 | 89 | .95 | 141 | 1.5 | 1.69 |
| Art | 0 | .00 | 0 | .00 | 0 | .00 | 0 | .00 | .00 |
| Culture/religion | 109 | 1.16 | 60 | .64 | 69 | .74 | 238 | 2.54 | 2.78 |
| Sport | 1 | .01 | 0 | .00 | 2 | .03 | 3 | .04 | .25 |
| War | 1 | .01 | 1 | .01 | 13 | .14 | 15 | .15 | .42 |
| Other | 0 | .00 | 0 | .00 | 0 | .00 | 0 | .00 | .00 |

N = number of domains, M = mean, SD = standard deviation, Hum dev. = human development

The results show that, among the 15 classified social domains, the participants used 13 to make sense of the three news items under study, but the domain ‘art’ and the domain ‘other’ are not referred to at all. Therefore, they will not be considered meaningful in this analysis. The social domains are used by participants in different degrees; the standard deviations best illustrates this diversity, \( M = .04, SD = .25 \) (sport), \( M = 5.19, SD = 4.58 \) (economy). Moreover, the domains used in the interpretations of the three news items can be divided into three main categories. First, the most frequently used domains are the ones that are closely and directly related to the content of the news items. In the second type, the domains are related to the news items’ content but in a less direct or in an indirect way. In the third type, the domains are less frequently used and are not connected to the theme of the news content.

In sum, investigating the elements, types of elements, relations and the socio-cultural domains that the viewers’ interpretations are composed of indicates that these interpretations are rich and diverse. Some interpretations are enormously large, whereas others contain only few or none of the above-mentioned components at all. Therefore, the alternative hypothesis stating that, the viewers’ interpretations differ from one another in the degree of
complexity in terms of the number of elements, types of elements, relations between these elements and the socio-cultural domains to which the viewers refer in their interpretations is substantiated. Indeed, the results obtained so far, are of paramount importance to examine similarities and differences between the participants’ interpretations, but addressing the factors that affect the participants’ interpretations of the news the way they do is of utmost importance.

**Males and Females Interpretation of Television News:**

**Table 6:** Descriptive statistics associated with interpreting the news item about abortion.

| Gender | N  | Mean | Std. deviation | Std. error mean |
|--------|----|------|----------------|----------------|
| Abortion | Male | 50  | 12.7400 | 5.00127 | .70729 |
|         | Female | 44  | 9.8409  | 4.09164 | .61684 |

Note. N = number of participants.

As the t-test output shows, males (N = 50) are associated with interpreting the news item about ‘abortion’ in a more complex way \( M = 12.7400 \) (SD = 5.00127). By comparison, females (N = 44) are associated with numerically constructing less complex interpretations, \( M = 9.8409 \) (SD = 4.09164). To test the hypothesis that males construct more complex interpretations of the two Moroccan public service television channels’ news 2M and Al Oula, an independent sample t-test is used. As table 7 shows, the homogeneity of variance assumption is satisfied via Levene’s test, \( p > .000 \). The independent samples t-test is associated with a statistically significant result of \( t = 3.050, df = 92, p > .000 \). Thus, males are statistically and significantly associated with interpreting the news item about abortion in a more complex way. Therefore, the null hypothesis assuming that there is no significant difference between males and females in interpreting 2M and Al Oula’s news is rejected, and the alternative hypothesis stating that male viewers construct more complex interpretations than females is reinforced.

**Table 7:** T-test for males and females interpretation of the news item about abortion

| Levene’s test for equality of variances | t-test for equality of means | 95% CID |
|----------------------------------------|-----------------------------|---------|
| F   | Sig. | T   | Df | Sig.(2-T) | MD | Std. | Lower | Upper |
| EVA | 1.233 | .270 | 3.050 | 92 | .003 | 2.8990 | .95055 | 1.01122 | 4.78697 |
| EVNA | 3.08 | 91.54 | .003 | 2.8990 | .9384 | 1.0350 | 4.7631 |

Note. EVA = equal variances assumed, EVNA = equal variances not assumed, CID = confidence interval of the difference, Sig. 2T = Sig. (2-tailed), MD = mean difference, std. ED = std. error of difference.

**Relationship between Age and Television News Interpretation:**

Above, similarities and differences between males and females are investigated. However, this proves insufficient to thoroughly understand the relationship between the participants’ characteristics and their interpretation of television news. In this regard, the following subsection addresses the correlation between the participants’ age and their interpretation of the Moroccan public service television news.

**Table 8:** Descriptive statistics of the three news item.

| N   | Valid | Age | Abortion | Human development | Crime |
|-----|-------|-----|----------|------------------|-------|
|     |       | 94  | 94       | 94               | 94    |
| Missing | 0    | 0   | 0        | 0                | 0     |
| Mean |       | 32.79 | 11.38    | 10.11            | 10.39 |
| Std. deviation | 12.216 | 4.799 | 5.056    | 3.679            |

Note. N = number of participants.

Ninety four people (N = 94) were surveyed about their age (\( M = 32.79, SD = 12.216 \)) and were interviewed about how they interpret the television news item about abortion (\( M = 11.38, SD = 4.799 \)). The relationship between age and television news interpretation is examined using a Pearson product-moment correlation coefficient. Preliminary analyses are performed to make sure that the normality, linearity and the homoscedasticity assumptions are not violated. As table 9 shows, there is a significantly weak negative correlation between viewers’ age and their interpretation of the news item about the issue of ‘abortion’, \( r (92) = -.099, N = 94, p > .000 \). This means that, the
older the viewers, the less complex their interpretations are, and the younger, the more complex their interpretations become. Also, as the p value is greater than .05, there is not enough evidence to suggest that this correlation exists in the whole population. More importantly, another measure that better illustrates the relationship between the two variables is the coefficient of determination. It explains how much variation of the dependent variable is directly related to the independent variable. According to the literature, the closer the coefficient value of determination is to 1, the more the variation of the dependent variable is directly related to the variation of the other variable, and, therefore, the stronger the relationship between the two variables is. In our example, the coefficient of determination of -0.099 is (-0.099)^2 = 0.0098, which means that, age and the viewers’ interpretation of the news item about abortion share only 0.98%. This means that there is only a little overlap between these two variables. Therefore, there is enough evidence to reject the null hypothesis assuming that, the level of complexity of the viewers’ interpretations is highly correlated with age.

Table 9: Correlation between age and viewers’ interpretation of the issue of abortion.

|       | Abortion       | Age   |
|-------|---------------|-------|
|       | Pearson       |       |
| Abortion |    0.099     | 0.343 |
| Sig. (2-tailed) |   0.007     | 0.015 |
| N      | 94            | 94    |

Note. **Correlation is significant at the 0.01 level (2-tailed), N = number of participants.

Prior Knowledge and Involvement and Television News Interpretation:-

To examine which one of the two independent variables, ‘involvement’ and ‘prior knowledge’ is able to explain variances in the dependent variable, standard multiple regression analysis is used. As table 10 shows, the R square value explains how much of the variance in the participants’ interpretation of the issue about ‘crime’ is explained by the independent variables. In our case the value is estimated at \( r = 0.007 \). This means that, these independent variables explain only 0.7% of the variance in the interpretation of the television news item about ‘crime’ and that more than 99% is explained by factors other than the above mentioned variables.

Table 10: Variance in the interpretation of the news item about the issue of crime.

| Model | R   | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-----|----------|-------------------|---------------------------|
| 1     | 0.083* | .007     | -.015             | 206.39094                 |

Moreover, the p value enables us to test the statistical significance of the results and see whether the model is a statistically true predictor of the outcome about the whole population or not. The p value, as the output shows (table 11), is \( p > .000 \), as the p value is greater than .05, the model does not predict the outcome.

Table 11: Statistical significance of the interpretation of the issue of crime.

| Model | Sum of squares | Df. | Mean square | F     | Sig. |
|-------|---------------|-----|-------------|-------|------|
| Regression | 26974.426     | 2   | 13487.213   | .317  | .729*|
| Residual   | 3876346.978   | 91  | 42597.220   |       |      |
| Total      | 3903321.404   | 93  |             |       |      |

1. Predictor: (constant), involvement, prior knowledge.
2. Dependent variable: the news about the issue of ‘crime’

The next step is to know which one of the two variables makes a stronger contribution to explaining how the Moroccan viewers interpret television news. As table 12 illustrates, the two variables make a weak contribution to explain variances in the dependent variable, but in comparison to involvement with a beta value of \( \beta = 0.019 \ (p > .000) \), audiences’ prior knowledge about the issue of the news better predicts the outcome with a beta value of \( \beta = -0.077 \ (p > .000) \). In short, based on the regression analysis results, prior knowledge and involvement make a weak contribution to explain the way viewers make sense of the news. Therefore our hypothesis assuming that issue-specific characteristics best predict the outcome is refuted.
### Table 12: Regression analysis: The news item about crime.

| Coefficients | Unstandardised coefficients | standardised Coefficients |
|--------------|-----------------------------|---------------------------|
| Model        | B                           | Std. Error | Beta | T   | Sig. |
| Constant     | 211.827                     | 98.779     | -2.144 | 2.144 | .035 |
| Prior knowledge | -14.010                    | 19.493     | -0.077 | -0.719 | .474 |
| Involvement  | 1.035                       | 5.967      | 0.019  | 0.173 | .863 |

Note: a. Dependent variable: the news item about ‘crime’

### Discussion:

The results confirm that the viewers’ interpretations are rich and diverse. They differ from one another in terms of size. Examining the content of interpretations is hard, but addressing how they are structured helps, to a great extent, to assess the meaning(s) that the viewers’ interpretations contain, because, “through focusing on the structure of interpretations, we can circumvent the problem of assessing ‘meaning’ to some extent” (Schaap, 2009, p. 178). Interpretations are structures that are composed of a set of elements, and investigating these elements facilitates comparisons between them. Moreover, some of the components that the participants make use of in their interpretations are part of the news items’ content, whereas others are imported from their background knowledge. These importations, according to Paul (1959), occur “when memory gaps are filled with earlier knowledge about similar events” (Cited in Findahl & Hoijer, 1985, 387). This means that, the way the participants process information and make sense of it differs from one person to another. Importantly, Based on the analysis of their interpretations, some participants are considered passive recipients who are unable to reflect on the news content they are provided with, because either they lack enough background knowledge about the issue of the news, or that the news stories content is challenging and difficult to understand; for Davis and Robinson (1989), “stories with complex structure and terminology or powerful but irrelevant visual images were poorly understood” (Cited in Baran & Davis, 2012, 268). Moreover, passive processing may be the result of being unable to connect their background knowledge with the news topic and, thus, make connections or draw conclusions about it.

Assessing the degree of variability among interpretations is not adequate to fully understand the way viewers interpret the Moroccan public service television news, but investigating whether these differences and uniformities are associated with the viewers’ personal characteristics, like age and gender or with the issue-specific characteristics, like prior knowledge and involvement, or both, is of utmost importance. The findings indicate that, all these variables have an impact, in different degrees, on the way the participants reconstruct the Moroccan public service television news meaning. Males, as the results confirm, construct more complex interpretations than females, which goes in line with the previous research (Oliver, 2000; Hansen & Hansen, 2000; Knobloch-Westerwick & Alter, 2007). Also, men are found to understand and recall more of the news content they attend to than females (Findahl & Höijer, 1985; Hendriks Vettehen et al., 1996).

In addition to the person-specific characteristics, the participants’ prior knowledge and involvement weakly affect the degree of complexity of the viewers’ interpretations. This partly corroborates the previous research as audiences resort to their prior knowledge to learn, make sense of different news stories they encounter in different media outlets (Findahl & Hoijer, 1985; Iyenger, 1990). Moreover, Woodal, Davis and Sahin (1983) confirm that, individuals with prior knowledge about a particular topic remarkably know more than those who know less or nothing about the news topic they attend to. additionally, involvement is an important factor that determines the extent to which a particular media content is relevant to its audience, because the more involved audiences are in the topic of the news, the closer the relationship between them and the news topic, and, therefore, the more attention they pay to the news (Findahl & Höijer 1985; Hendriks Vettehen et al., 1996). In this study, as the participants’ degree of involvement differs from one person to another, their interpretations, dogmatically differ, in the degree of complexity. Therefore, they range from very simple to enormously complex. Some of the participants restrict themselves to the content of the news, whereas others go far beyond the news content and connect it to their prior knowledge about other domains to make sense of the news they attend to.

### Conclusion:

The findings confirm that, the participants’ interpretations differ from one another in terms of size; some are many times larger while others contain no words at all. Yet, despite these variations, there are some relative similarities among the participants’ reconstructions. In addition to that, investigating the components that the interpretations are
composed of reveals that they are rich in terms of the elements, element types, relations between these elements and the different socio-cultural domains the participants’ interpretations are constituted of. The components that the participants used in their interpretations are not equally used as some of them are enormously referred to, while others are far less used. A further examination of whether interpretive complexity is related to the viewers’ characteristics, like gender, age or issue-specific characteristics, like prior knowledge, involvement reveals that these variables do not contribute much to explain variance in the dependent variable, which means that the way Moroccan viewers make sense of the news is explained by factors other than the above mentioned variables.

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