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Mohamed-Nabil Mzoughi, Safa Chaieb, Karim Garrouch

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The effects of rhetorical ambiguity in advertising on comprehension and persuasion: moderating role of tolerance of ambiguity

Mohamed-Nabil Mzoughi  
PhD - Professor  
MaPReCoB Research Unit  
University of Sousse  
(Tunisia)

Safa Chaieb  
PhD  
MaPReCoB Research Unit  
University of Sousse  
(Tunisia)

Karim Garrouch  
PhD - Assistant Professor  
Saudi Electronic  
University Riyadh  
(Saudi Arabia)

This work studies the relation between the various levels of ambiguity rhetoric and advertising persuasion. The latter is apprehended via the emotion, itself approached through the affective reactions induced by the ad. The conceptual model integrates a mediating variable: comprehension, as well as a moderating variable: the tolerance to ambiguity. The empirical investigation follows different steps: principal components analysis, confirmatory analysis and variance analysis. The software AMOS 18 and SPSS 17 made it possible to obtain results presenting of many theoretical, methodological and managerial contributions.
Key-Words: Ambiguity – Rhetoric - Comprehension – Tolerance to ambiguity – Persuasion.

Ce travail étudie la relation entre les différents niveaux d’ambiguïté rhétorique et la persuasion publicitaire. Cette dernière est appréhendée via l’émotion, elle-même abordée à travers les réactions affectives déclenchées par l’annonce. Le modèle conceptuel intègre une variable médiatrice : la compréhension, ainsi qu’une variable modératrice : la tolérance à l’ambiguïté. L’investigation empirique comporte une analyse en composantes principales, une analyse factorielle confirmatoire et une analyse de la variance. Les logiciels AMOS 18 et SPSS 17 ont permis d’obtenir des résultats présentant de nombreux apports sur les plans théorique, méthodologique et managérial.


Este trabajo examina la relación entre los diferentes niveles de ambigüedad retórica y persuasión publicitaria. Este último es aprehendido a través de la emoción, que se aborda a través de las reacciones afectivas descencadenadas por el anuncio. El modelo conceptual integra una variable mediadora : comprensión, así como una variable de moderadora: la tolerancia a la ambigüedad. La investigación empírica incluye el análisis del componente principal, el análisis factorial confirmatorio y el análisis de varianza. Los softwares AMOS 18 y SPSS 17 permitieron obtener resultados presentando numerosas contribuciones en los niveles teórico, metodológico y gerencial.

Palabras-clave: Ambigüedad - Retórico - Comprensión - Tolerancia a la ambigüedad – Persuasión.
Introduction

Persuasive rhetoric is increasingly considered as an important conceptual framework in management studies (Soetaert and Rutten, 2017). The Ipsos prize list, which rewards each year the most appreciated ads by French, shows that the majority of these advertisements contains rhetorical figures (www.ipsos.fr). In the United States, 74% of ads contain a rhetorical figure (Leight, 1994). The majority of advertisements is not formulated in a direct way, but contains rhetorical figures which confer original and creative meanings (Soetaert and Rutten, 2017). Rhetorical figures present an ornament of the ad and are the subject of an increasing interest (Van Mulken et al., 2010; Grant et al., 2010; Philips and McQuarrie, 2002; Mothersbaugh et al., 2002; Toncar and Munch, 2001; McGuire, 2000; Leight, 1994; McQuarrie and Mick, 1996). Rhetoric is a communication technique which generates strong emotions (Chebat and Gautier, 1978). It makes it possible to transform the simple and conventional form of the proposal into a more elaborate structure (Kreuz, 2001), thanks to an “artistic deviation” (McQuarrie and Mick, 1996).

An ad for Heinz ketchup presents a subtle visual metaphor and the tagline “No one grows ketchup like Heinz.” This rhetorical ad implies that the ketchup Heinz is made from fresh tomatoes (Mohanty and Ratneshwar, 2016).
What really matters in ads is not the type of rhetorical figure but its deviation degree (McQuarrie and Mick, 1996) and particularly its ambiguity (Ha and Hoch, 1989). Several interpretations are possible thanks to various handling of ambiguous stimuli. According to Huhmann (2008), rhetorical works should be more characterized by complexity than non-figurative ones.

However, there is a disagreement about the impact of the complexity of rhetorical figures. Certain studies present the most complex figures (the tropes) as being preferred to the less complex processes (schemes) (Van Enschot and al. 2005). A second current shows, on the contrary, the superiority of non-rhetorical ads. The direct figures are more appreciated than the metaphors, whether they are clear or incomprehensible (Lagerwerf and Meijers 2008). Van Mulken and al. (2010) present the complexity as negatively correlated with the appreciation of the ad.

Various typologies of the advertising persuasion models highlight the role of comprehension (Batra and Ray, 1985; Lutz and Swasy, 1977; Fishbein, 1967). But, researches devoted to the role of comprehension are insufficient and divergent. While some authors find a significant relation between comprehension and persuasion (Chattopadhya and Alba, 1988), and talk about the mediating role of various levels of advertising comprehension (Jacoby and Hoyer, 1989), others do not find any relationship (Petty and Cacioppo, 1979). Moreover, only few researchers empirically examined the
relationship between comprehension and its subsequent effects (Jaffe et al., 1992; Celsi and Olson, 1988; Alpert et al., 1983).

This work aims to study the effect of various levels of rhetorical ambiguity on the advertising persuasion process, and to analyze the mediating role of comprehension. Additionally, the moderating role of the tolerance to ambiguity is also examined.

Rhetoric and Advertising

Rhetorical figures improve the advertisement persuasiveness (Leight, 1994). Rhetoric allows the transformation of a simple “informative” advertisement into a “transformative” one, filled with significations, and which embellishes the experience of consumption by making the consumer dream (Kreuz, 2001; Deighton, 1985; Puto and Wells, 1983). The most original ideas correspond to the rhetorical figures which bring into play a literal and a figurative language (Leight, 1994; Durand, 1970). The evoked significances result from the gap between the basic formulation “degree zero” and the rhetorical one, which is unexpected and involves several interpretations (Chebat and Gautier, 1978). Rhetoric thus grants to the consumption experience a dimension of pleasure and an aesthetic as well as poetic value.

Rhetoric positively affects the consumer’s attention, attitude, memorization and behavior (Huhmann, 2008; McGuire, 2000; McQuarrie and Mick, 1999; Meyer-Levy and Malaviya, 1999; Mick, 1992).

Ambiguity

The use of rhetoric has become more complex and elaborated through time. Since 1950, advertising has evolved from functional to symbolic, and from the use of only one rhetorical figure accompanied by a verbal explanation to the use of several and not anchored figures (Philips and McQuarrie, 2002).

Incongruity is among the main characteristics of a rhetorical figure (Mohanty and Ratneshwar, 2016). The ambiguity of rhetorical advertising is related to the absence of information and the potential for several interpretations concerning the global quality of a product (Hoch and Ha, 1986), or, on the contrary, to “a surplus of
signification, and not to a deficit” (McQuarrie and Mick, 1992). It may also be due to the “the creation of equal probability significances” (Khan and Sarin, 1988).

Advertising complexity draws the consumer’s attention to the brand and the message. It can be an appreciated challenge (Pieters et al., 2010). When information on product quality is ambiguous, advertisement is more persuasive (Hoch and Ha, 1986). The ambiguous message involves the receiver in a cognitive effort since he must solve the ambiguity (Yannopoulou and Elliott, 2008; Mothersbaugh et al., 2002; McQuarrie and Mick, 1999) and because it violates some rules of coding (rules of the orthography, lexical rules, using non-existing words...) (McQuarrie and Philips, 2005; McQuarrie and Mick, 1992).

The deviating figures involve the most important change in consumer beliefs and in persuasion (Chang and Yen, 2014; Philips and McQuarrie, 2009). Ads do not affect the interpretation of the non-ambiguous arguments (Ha and Hoch, 1989). Advertisements which explain clearly the meaning of the rhetorical figure can lead to a negative attitude towards the ad (Philips, 2000). The same applies for images; open and ambiguous ones make the ad more persuasive (McQuarrie and Philips, 2005; Messaris, 1997; Tanaka, 1994; White, 1981). To a certain extent, complexity increases the pleasure and is associated to a better appreciation of the ad (Pieters et al., 2010; Philips and McQuarrie, 2004).

However, some researches demonstrate the superiority of non-rhetorical ads. Direct figures are more appreciated than metaphors, whether they are clear or incomprehensible (Lagerwerf and Meijers, 2008). The complexity is negatively correlated with the ad appreciation (Van Mulken et al., 2010). For Burgers et al., (2011), a specific rhetorical figure which is irony is appreciated only when it is relatively easy. Likewise, complex images reduce the attention (Pieters et al., 2007), and lead to a weaker appreciation of the ad (Pieters et al., 2010).

**H1: More complex advertisements are appreciated more than less complex ones.**

An advertising which clearly explains the significance of the rhetorical figure can produce a negative attitude towards the ad (Philips, 2000), probably because it depreciates the pleasure of cracking the puzzle of the ad (Mohanty and Ratneshwar, 2014). However, beyond an optimal level of complexity, the effect is
reversed (McQuarrie and Mick, 1992) and the deviation becomes whether insufficient or too inaccessible (McQuarrie and Mick, 1999). It is thus necessary to be vigilant about the amount of the deviation (McQuarrie and Mick, 1996). Individual variables, such as tolerance of ambiguity, affect the impact of the advertising ambiguity on attitude (McQuarrie and Mick, 1992).

H 2: There is a threshold above which the complexity effect on persuasion becomes negative.

Variation of the ambiguity level

What does really affect persuasion is not the type of figure deviation, but its degree. It is not if the ad contains this or that rhetorical figure, such as pun, metaphor or rhythm. The issue is to which extent the construction of the advertisement is deviating. The rewarding characteristic of the artistic deviation implies that the figurative language has a stronger impact on the attitude towards the advertisement than the literal one (McQuarrie and Mick, 1996). Hence, the advertising professionals should develop incongruous and relevant metaphors in their publicities (Philips and McQuarrie, 2009).

Most complex figures or tropes are preferred to less complex ones or schemes (Van Mulken et al., 2010; Van Enschot et al., 2005; Philips, 2000; McQuarrie and Mick, 1992). They are more astute than simple figures like repetition or substitution (McQuarrie and Mick, 1996). A complex advertisement involves a major cognitive activity. It has a stronger impact on emotions, if it is understood (Van Mulken et al., 2010; Pieters et al., 2010; Lagerwerf and Meijers, 2008; McQuarrie and Philips, 2005; Philips and McQuarrie, 2004; Mothersbaugh et al., 2002; Toncar and Munch, 2001; Philips, 2000; McQuarrie and Mick, 1992, 1996, 1999; Warlaumont, 1995). It provides what Barthes (1985) calls “the pleasure of the text”, the reward of an intelligent treatment of the signs. However, the results about the impact of ambiguity are mitigated. For a first current, the ad does not affect the interpretation of non-ambiguous arguments (Ha and Hoch, 1989). The same should be applicable to the visual rhetorical components; its ambiguity significantly affects emotions (McQuarrie and Philips, 2005; Messaris, 1997; Tanaka, 1994; White, 1981). A second current considers that complexity negatively affects
emotions, and that not rhetorical, simple and comprehensible ads, are more effective (Lagerwerf L. and Meijers A. 2008).

**H3:** The rhetorical advertisement has a significant effect on the emotions.

**Persuasion**

A rhetorical work may be used to enhance persuasion or audience processing (Huhmann, 2008). Soetaert and Rutten, (2017) clearly defend that rhetoric has been always about persuasion, starting by getting the attention. Indeed, rhetoric is by definition an art of persuasion focusing on the purpose of persuading audiences to listen to and act on messages using figurative and non-figurative language (Fox et al, 2015).

Various attempts to modeling the advertising effects lead to an agreement about the measure of its effectiveness (favorable attitude towards the purchase behavior), to an identification of the mediating elements of the persuasion process, and to a divergence regarding the relative importance of the latter (Falcy, 1993).

Persuasion indicates the modification in the individual’s manner of thinking. It reflects the processes of modification of the attitude, the beliefs contributing to their formation, and the behavior (Petty and Cacioppo, 1987). “It is an intrapsychic sequential process of data treatment. Persuasion is not only what a message makes with a person, but what this person makes with the message” (Kapferer, 1978, p.61).

The persuasion process depends on the personal characteristics (Valette-Florence, 1988; Haugtvedt et al., 1988) and on the type of the stimulus (Falcy, 1993). The antecedents are psychological and situational. “The evolution of research in persuasion is very related to that of research in consumer behavior: it carries the same traces of the passage from the domination to the relativization of the cognitive paradigm, for a better consideration of the affect” (Falcy, 1993, p.46).

The emotional dimension, neglected in certain researches (Lutz, 1975; Olson and Mitchell, 1975), is taken into account in psychology studies by developing the role of the emotional experiences (Gardner, 1985; Holbrook and Hirschman, 1982; Bower, 1981; Zajonc, 1980). The emotional and cognitive influences must be simultaneously assessed because they affect the attitudes towards the
brand (Brown and Stayman, 1992). In addition, the emotions affect the attitude towards the ad (Derbaix and Pham, 1991; Havlena and Holbrook, 1986; Batra and Ray, 1986; Holbrook and Batra, 1987; Edell and Burke, 1987, 1989; Aaker et al., 1986). Concurrently with the attitude, the emotion is thus apprehended like a mediator of advertising persuasion. The latter is measured through its emotional and attitudinal components.

**Role of comprehension in the persuasion process**

It has received little attention in communication and media research (Wyer and Shrum, 2014). Only few studies empirically examine the relationship between the comprehension and its effects (Jaffe et al., 1992; Celsi and Olson, 1988; Alpert et al., 1983), or the role of comprehension in persuasion (Ratneshwar and Chaiken, 1991).

Comprehension was defined as “the use of prior knowledge to extract the signification from the message based on its components (words, sentences…) and on the relationship between these latter” (Ratneshwar and Chaiken, 1991, p.53), as a “state” focused on the process outcomes (Jacoby and Hoyer, 1989), as “a psychological process” which calls upon mental processes in the interpretation from the structure of the text until the outcome process, or as the mental representation of the text and actions based on its construction (Kintsch, 1988).

The disadvantage of the complexity is that it may not lead the individual to an interpretation, or results in an undesirable one (Mohanty and Ratneshwar, 2014, Van Mulken et al., 2010; Ketelaar et al., 2008). The relationship between ad comprehension and incongruity is found to be inversed (Mohanty and Ratneshwar, 2014). If the metaphor is not understood, it generates a bad evaluation of the message (Johar, 1995). There is, therefore, a tolerance threshold above which the impact is negative because of the confusion created in the receiver’s mind. The relatively less complex metaphors are preferred to those more complex that are more difficult to understand (Van Mulken et al., 2010).

In some studies, the complexity is negatively correlated with the appreciation of advertisements (Burgers et al. 2011; Ketelaar and Van Gisbergen, 2006; Chebat et al. 2003). An ad is not more appreciated when more effort is required. An additional effort does
not necessarily involve more pleasure. The cognitive pleasure of solving the incongruity, which is supposed to be important in the tropes appreciation, is over-estimated (Van Mulken et al., 2010). There is a tolerance threshold to the deviation above which the impact becomes negative, because of the confusion created in the receiver’s mind (McQuarrie and Mick, 1992). The figurative language is appreciated better than the literal one (McQuarrie and Mick, 1996). If the message is too easy, the receiver does not memorize it; if it is too difficult, he refuses to treat it (Chebat et al., 2003; Ketelaar and Van Gisbergen, 2006).

H 4: A high level of ambiguity negatively affects comprehension.

Ad comprehension is important in the attitude change processes (Mohanty and Ratneshwar, 2014). Several researches present the advertisement comprehension as a logical antecedent of the variables composing the persuasion process, such as attitude or behavioral intentions (Jacoby and Hoyer, 1982; Bettman, 1979; Engle, Blackwell and Kollat, 1978; McGuire, 1976; Fishbein and Ajzen, 1975; Lavidge and Steiner, 1961). It significantly affects the appreciation.

The semioticians talk about “pleasure of the text” (Barthes, 1964, 1985). The pleasure felt after a successful decoding creates an appreciation of the advertisement (McQuarrie and Mick, 1992). On the other hand, if the rhetorical figure is not understood, it involves a bad evaluation of the message (Capelli and Sabadie, 2007; Johar, 1995). Other studies do not find a relationship between comprehension and persuasion (Petty and Cacioppo, 1979).

There is an increase of the development of rhetorical advertisements which stimulate the cognitive elaboration (Madupu and al. 2017; Philips and McQuarrie, 2002; O' Donhoe, 2001). Interpretation represents a challenge, especially because of the various cultural significations and interpretation perspectives (Yannopoulou and Elliott, 2008; Holt, 2002; Kates, 2002; Firat and Venkatesh, 1995). There is even a tendency towards less verbal anchoring, which indicates that advertisers are leaving the interpretation open to each individual (Madupu and al. 2017).

Ambiguity is necessary for the advertisement’s transformational effects (Ha and Hoch, 1989). Ambiguous stimuli lead to several substitutable interpretations via subtle manipulation. When information is ambiguous, the advertisement is rather persuasive (Hoch and Ha, 1986).
The consumer appreciates complex ads only if the cognitive effort results in a relevant meaning (Capelli and Sabadie, 2007; Johar, 1995; McQuarrie and Mick, 1992). A better comprehension produces more favorable attitudes towards the brand (Burgers et al., 2011; MacInnis and Jaworski, 1989; MacInnis, 1988; Alwitt, 1987; Jacoby et al., 1980). The most understood ads are the more persuasive (Stewart, 1986). The cognitive effort, followed by the deciphering of the rhetorical puzzle, leads to positive emotions (Madupu and al. 2017; Jeong, 2008; McQuarrie and Mick, 1996, 1992).

$H_5$: Comprehension has a mediating role between ambiguity and emotions.

Tolerance of ambiguity (TA), a moderating variable

It is an increasingly interesting subject for study in a wide variety of fields. It is expected that future studies will yield new insights into individual differences in reactions to the complex, unfamiliar, confusing, indeterminate, and incomplete stimuli that fall within the conceptual domain of ambiguity (McLain and al. 2015).

Individuals face complex situations by deploying various levels of TA (Owen and Sweeney, 2002). Some people appreciate the ambiguous situations and consider rhetorical ads as hedonic, while others avoid them (McQuarrie and Mick, 1992; Budner, 1962). The tolerance of ambiguity TA is subject to equivocal results (Furnham and Ribchster, 1995). It is considered as a personality variable (Budner, 1962), an organizational property (Furnham and Gunter, 1993), or a cultural one (Furnham and Ribchester, 1995). It refers to the way an individual perceives and treats the stimuli considered as strange and complex. It can be defined as a "willingness to understand or interpret information that is ambiguous incomplete, multiple, probable, indefinite, unstructured, contrasting, contradictory, or vague information" (Amiri, 2015, p.2). It interacts with the rhetorical figure so that individuals with a higher TA adopt a more favorable attitude towards rhetorical advertisements than towards non-rhetorical ones. In other words, individuals with a higher TA are more likely than those lacking TA to remain comfortable in uncertain situations (Erten and Topkaya, 2009). Tolerant individuals react to ambiguous situations with a greater flexibility (Atef-Vahid and al. 2011). In contrast, individuals lacking TA are more likely to have
negative responses to ambiguous situations. They find it difficult to take risks and make correct judgments in the absence of information (Furnham and Marks, 2013). People with lower levels of TA react to risk-taking as a type of stress by rejecting, escaping or postponing (Chiang, 2016; Furnham and Marks, 2013; Furnham and Ribchester, 1995; McLain, 1993).

H 6: Individuals with a higher TA prefer ambiguous advertisements to those which are less ambiguous.

When exposed to complex message, individuals who do not tolerate ambiguity feel dissatisfied, whether there is resolution or not (Grant et al., 2010; Furnham and Ribchester, 1995; McQuarrie and Mick, 1992). They have negative emotions and attitude towards the ambiguous advertisements (Furnham and Ribchester, 1995). They prefer the familiar stimuli requiring a little cognitive effort (Grant et al., 2010).

H 7: Individuals with a weak TA adopt negative emotional reactions towards the ambiguous stimuli.

Methodology

Quasi-experimental design was used in this study as it allows the manipulation of stimuli, the control of certain factors, and the examination of causality between variables (Evrard et al., 1997).
The used stimuli are printed advertisements which appeared in foreign magazines. Indeed, Thorson (1990) recommends the use of real advertisements, in order to increase the external validity of the study, and to insure the authenticity and applicability to the findings. Moreover, the choice of foreign commercials makes it possible to eliminate the effects of personal experience, and to minimize measurements bias. All ads deal with the same product “cars” and the same brand “Volkswagen” because the purpose of this approach is to eliminate bias related to the type of product and brand. These experimental precautions should improve the internal validity.

A jury of 5 experts, all PhD holders, carried out a first selection of the advertisements corresponding to 4 levels of ambiguity. The selected ads were subject to the perceived complexity scale in order to validate the level of ambiguity of each one. The analysis of questionnaires led to the choice of 4 ads inherent to the 4 levels of ambiguity.

**Operationalization of the variables**

**Measurement of Comprehension**

The scale of McQuarrie and Mick (1999) is relevant in the field of rhetorical advertising, and belongs to the subjective measuring instruments. It makes it possible to the respondent to affirm his (her) own level of comprehension. Contrary to objective measurements, it does not require to write the interpretation of the ad. Thus, it avoids the deterioration of the answers quality (Ford and Yalch, 1982). The true/false questions can certainly be used as part of the objective measurements, but they do not reveal adequately the comprehension degree (Jaffe et al., 1992; Jacoby et al., 1980). The quiz is another solution recommended by the supporters of objective measurements (Jaffe et al., 1992; Schmittlein and Morrison, 1983). But it is criticized for the bias concerning the comprehension score. The latter depends on the proportions of correct and incorrect answers (Jacoby et al., 1983).
Measurement of TA

The most used measurements of TA were criticized for psychometric weaknesses (McLain, 1993) which produced incoherent results (Bors et al., 2010). The tolerance/intolerance to ambiguity scale of Bunder (1962) is the founder work in this field. It is reliable and used in several works (Bors et al., 2010; Hermann et al., 2010; Barette and Ladouceur, 2005; Owen and Sweeney, 2002; Furnham and Ribchester, 1995; McLain, 1993). It distinguishes three types of ambiguous stimuli: new (not familiar), complex (leading to several interpretations), and insoluble (contradictory). In these stimuli, information is non-existent, insufficient, too abundant, or incoherent (Owen and Sweeney, 2002). The scale encompasses sixteen items, half with positive polarity and half with negative polarity.

Measurement of Emotions

The ideal measurement of emotional reactions should be a real time measurement, i.e. the moment it occurs (Derbaix and Poncin, 2005). Verbal post-exposure measurements constitute the most appropriate and most widely used method in the advertising context (Derbaix and Pham, 1989).

The “20 verbal affective reactions” (ARs) of Derbaix (1995) is a scale comprising twenty items and a bi-dimensional structure: positive and negative emotional reactions. It considers emotions as affective reactions (amused, tenderized, interested, irritated, annoyed…) and takes into account only primary emotions (joy, fear, anger…). Since the ambiguity of rhetorical ads involves positive and negative emotions according to the characteristics of the receiver, the use to this scale is judicious.

Results of the pretests

The scales were purified in order to eliminate the items which are likely to weaken the global structure. Exploratory and confirmatory analyses were necessary.
Table 1 – Results of the pretests

<table>
<thead>
<tr>
<th></th>
<th>Comprehension</th>
<th>TA</th>
<th>Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO</td>
<td>.707</td>
<td>.822</td>
<td>.676</td>
</tr>
<tr>
<td>Bartlett’s test</td>
<td>529,943</td>
<td>14567,572</td>
<td>4941,309</td>
</tr>
<tr>
<td></td>
<td>P = 0,000</td>
<td>Sig=000</td>
<td>P = 0,000</td>
</tr>
<tr>
<td>Variance explained</td>
<td>86,203 %</td>
<td>85,729%</td>
<td>58,599%</td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>0.919</td>
<td>0.976</td>
<td>0.718</td>
</tr>
<tr>
<td>Deleted items</td>
<td>Item 2</td>
<td>2, 4, 5, 7, 8, 11, 12, 14, 15, 16, 17, 18, 19</td>
<td>7, 9, 11, 16, 18, 19, 20</td>
</tr>
<tr>
<td>Alpha if items deleted</td>
<td>0.822</td>
<td>0.812</td>
<td>0.718</td>
</tr>
</tbody>
</table>

Confirmatory Factor Analysis

The scales comprising only 3 items were not subject to a CFA. A confirmatory approach would not be relevant regarding the degree of freedom (Baumgartner et al., 1996; Homburg and Baumgartner, 1996). The software program used for performing structural equation modeling is AMOS 18. It offers three types of indices to assess model fit: absolute, incremental, and parsimonious (Akrout, 2010).

Table 2 - Results of the CFA

<table>
<thead>
<tr>
<th></th>
<th>TA</th>
<th>Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2/dl$</td>
<td>2.646</td>
<td>4.055</td>
</tr>
<tr>
<td>NFI</td>
<td>0.989</td>
<td>0.966</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.08</td>
<td>0.1</td>
</tr>
<tr>
<td>AIC</td>
<td>98.402</td>
<td>265.553</td>
</tr>
</tbody>
</table>
The confirmatory analysis underlines a good global fit for TA and Emotions scales. They are respectively consisted of 9 and 13 items grouped into 2 dimensions.

Population and sample: The population is heterogeneous, mainly made up of students, but also of individuals from various ages and socio-professional status. A convenience sample, composed of 600 individuals was established corresponding to 10 times the number of items (Evrard and Leroux, 2003; Hair et al., 1998), was diverse in terms of age, educational level, and gender.

The respondents randomly received one of the 4 advertisements. Each of them was exposed to only one ad and had to look at it during 1 to 2 minutes in order to be able to evaluate it and answer to the different questions. The duration of the questionnaire administration was between 25 and 30 minutes. Only 574 questionnaires revealed to be useful.

Findings

Test of the direct effects

Table 3- Validation of the effect of rhetorical ambiguity on the affective Reactions

<table>
<thead>
<tr>
<th>Positive Affect</th>
<th>AmbigRhet</th>
<th><strong>(-0.182, 0.051, -3.563)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Affect</td>
<td>AmbigRhet</td>
<td><strong>(0.381, 0.053, 7.198)</strong></td>
</tr>
</tbody>
</table>

*** high signficativity; NS: non-significant

Rhetorical ambiguity affects the affective reactions. However, the effects do not have the same direction according to whether it is about positive or negative reactions. Indeed, it negatively affects the positive ARs (E = -0.182), and positively the negative ARs (E = 0.381).

Mediating role of comprehension
Rhetorical ambiguity significantly affects the ad comprehension (E = 1.038). Moreover, comprehension significantly influences positive and negative ARs (p=0). However, the direction of the influence is not the same. Indeed, comprehension has a positive impact on negative ARs (0.175) and a negative impact on positive ones (-0.162). The more important comprehension is, the more the advertisement leads to negative ARs. This result can be partially explained by the role of certain moderating variables like TA. The latter lead to the fact that some individuals prefer the relatively complex ads which require an important treatment effort.

**Multi-group analysis for the moderating effect of the TA**

The multi-groups analysis is completely suitable for studying the moderating effect. The moderation effect analysis procedure is constituted of three stages: 1- Identifying the groups, 2 - Multi-group confirmatory factor analysis, and 3 - Structural model analysis and interpretation. In the first stage (groups identification), it is about specifying the groups for which regression analysis will be carried out. The “Cluster Analysis” is an explorative analysis that tries to identify homogenous groups of cases within the data. For the moderating variable “Tolerance to ambiguity” which is continuous, a “cluster analysis” is carried out and reveals the existence of two groups: tolerant and intolerant to ambiguity.
The results show a significant positive effect of ambiguity on comprehension for the two groups. But this effect is more intense for the group of individuals with a low TA. For the effect of ambiguity on positive affective reactions, the difference between the two groups is not significant. Ambiguity affects negative ARs only for a low TA. This means that for people with a high TA, rhetorical ambiguity does not have a significant effect on negative ARs. These individuals do not adopt negative affective reactions towards the ambiguous stimuli.

First ANOVA on the global sample: Comparative study of the rhetorical ambiguity levels

The variation of the ambiguity level has a significant effect on the dependent variables. For several variables, F test presents significant values for the TA.

Table 6- Tests of the inter-subjects effects for Comprehension
In addition to rhetorical ambiguity, TA makes it possible to explain the variation between groups of the comprehension effects. Indeed, the covariable TA presents a significant F test (F=0.1; p=0.000).

<table>
<thead>
<tr>
<th>Dependent Variable: positive ARs</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>46,309</td>
<td>5</td>
<td>9,262</td>
<td>10.242</td>
<td>0.000</td>
<td>0.104</td>
</tr>
<tr>
<td>Intercept</td>
<td>2,431E-5</td>
<td>1</td>
<td>2,431E-5</td>
<td>0.000</td>
<td>0.996</td>
<td>0.000</td>
</tr>
<tr>
<td>Intolerances to Ambiguity</td>
<td>9,767</td>
<td>1</td>
<td>9,767</td>
<td>10.801</td>
<td>0.001</td>
<td>0.024</td>
</tr>
<tr>
<td>Tolerance to Ambiguity</td>
<td>5,186E-5</td>
<td>1</td>
<td>5,186E-5</td>
<td>0.000</td>
<td>0.994</td>
<td>0.000</td>
</tr>
<tr>
<td>AmbigRhet</td>
<td>37,113</td>
<td>3</td>
<td>12,371</td>
<td>13.681</td>
<td>0.000</td>
<td>0.085</td>
</tr>
<tr>
<td>Error</td>
<td>399,691</td>
<td>442</td>
<td>904</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>446,000</td>
<td>448</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>446,000</td>
<td>447</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The variation of the rhetorical ambiguity level significantly affects positive ARs (F=13.681, sig=0.000). TA allows the explanation of this variation (F=10.801, p=0.000).

Table 7- Tests of the inter-subjects effects for the Negative ARs

<table>
<thead>
<tr>
<th>Dependent Variable: negative ARs</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>232,139</td>
<td>5</td>
<td>46,432</td>
<td>95.972</td>
<td>0.000</td>
<td>0.521</td>
</tr>
<tr>
<td>Intercept</td>
<td>1,177</td>
<td>1</td>
<td>1,177</td>
<td>2,434</td>
<td>0.119</td>
<td>0.003</td>
</tr>
<tr>
<td>Intolerance to Ambiguity</td>
<td>3,312</td>
<td>1</td>
<td>3,312</td>
<td>6.846</td>
<td>0.009</td>
<td>0.015</td>
</tr>
<tr>
<td>Tolerance to Ambiguity</td>
<td>28,041</td>
<td>1</td>
<td>28,041</td>
<td>57.959</td>
<td>0.000</td>
<td>0.116</td>
</tr>
<tr>
<td>AmbigRhet</td>
<td>73,378</td>
<td>3</td>
<td>24,459</td>
<td>50.526</td>
<td>0.000</td>
<td>0.255</td>
</tr>
<tr>
<td>Error</td>
<td>213,841</td>
<td>442</td>
<td>484</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>446,000</td>
<td>448</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>446,000</td>
<td>447</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The variation of the ambiguity level significantly affects negative ARs. In addition to the level of ambiguity, TA contributes to this change (F=57.959, sig=0.000, and F=6.846, sig=0.009< 0.1).
ANOVA for the groups “Tolerant to ambiguity” and “Intolerant to ambiguity”

The sample was divided into two groups: tolerant and intolerant to ambiguity. Anovas were then carried out again independently for each group. This allows examining more precisely the effect of the level of ambiguity variation on the different dependent variables. The results are presented hereafter.

ANOVA on the variable “Comprehension”

<table>
<thead>
<tr>
<th></th>
<th>TA+</th>
<th></th>
<th>TA-</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>sig</td>
<td></td>
<td>sig</td>
<td></td>
</tr>
<tr>
<td>AmbigRhet</td>
<td>298,438</td>
<td>378,901</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

For individuals who are tolerant to ambiguity, the more the complexity increases, the better the subjective comprehension is. This group has the impression that the more the ad is complex, the easier it is to understand. For persons who are intolerant to ambiguity, subjective comprehension is almost constant for the non-rhetorical ad and the first level of ambiguity. For levels 2 and 3, this group presents an important subjective comprehension, which increases according to the level of complexity.
Anova on the variable « Affective reactions » (ARs)

Anova on “Positive ARs”:

<table>
<thead>
<tr>
<th></th>
<th>TA+</th>
<th></th>
<th></th>
<th>TA-</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>sig</td>
<td></td>
<td>F</td>
<td>sig</td>
</tr>
<tr>
<td>AmbigRhet</td>
<td>73,417</td>
<td>.000</td>
<td></td>
<td>335,963</td>
<td>.000</td>
</tr>
</tbody>
</table>

For individuals who are tolerant to ambiguity, positive ARs are developed according to the level of complexity. These individuals appreciate complex situations. People who are intolerant to ambiguity present the strongest positive ARs in the case of absence of rhetoric and the lowest level of ambiguity (Level 1). For levels 2 and 3, the positive ARs reach the minimal values.

Anova on “Negative ARs”:

<table>
<thead>
<tr>
<th></th>
<th>TA+</th>
<th></th>
<th></th>
<th>TA-</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>sig</td>
<td></td>
<td>F</td>
<td>sig</td>
</tr>
<tr>
<td>AmbigRhet</td>
<td>.884</td>
<td>.000</td>
<td></td>
<td>142,774</td>
<td>.450 (NS)</td>
</tr>
</tbody>
</table>
Tolerant individuals have negative ARs for the non-rhetorical advertisement. ARs reach their lowest values for levels 1 and 2 of ambiguity. Then, they grow slightly for level 3. The group which is intolerant to ambiguity develops negative ARs according to the level of ambiguity.

Discussion

Effectiveness of rhetorical ambiguity and moderating role of TA

Despite the dominance of rhetorical figures in modern advertising, there are only sparse studies on this topic (Mohanty and Ratneshwar, 2014). Some studies show that direct figures are more appreciated than metaphors (Van Mulken et al., 2010; Lagerwerf and Meijers, 2008). On the contrary, other researchers prove that the most complex figures are the more persuasive (Chang and Yen, 2014; Philips and McQuarrie, 2009; Ketelaar et al., 2008; Van Enschot et al., 2005; Philips, 2000; McQuarrie and Mick, 1992, 1996; Hoch and Ha, 1986). A third current preaches the use of moderately ambiguous ads. Complexity, with some limit, is associated to a better appreciation (Madupu and al. 2017, Burgers et al., 2011; Pieters et al., 2010; Philips and McQuarrie, 2009, 2004; Ketelaar and Van Gisbergen, 2006; Chebat et al., 2003; McQuarrie and Mick, 1996, 2003; Philips, 2000).

This study gives support to the previous assumptions through the integration of TA level as a moderating variable regarding the impact of rhetorical ambiguity on consumer perceptions and advertisement persuasion. Indeed, the use of TA, as a factor
explaining the difference between the findings of previous researches, constitutes a contribution to the academic corpus on this topic. Globally, the findings show that the first assumption affirming that direct figures are more appreciated than metaphors mostly apply on people having a low TA level, while the second assumption stating that the most complex figures are the more persuasive is most suitable for consumers having a high TA level. More precisely, the effect of ambiguity on persuasion is a function of the TA level. Individuals with a high TA develop positive emotional reactions according to the complexity level. The more ambiguous the ad is, the more positive the ARs are. These individuals appreciate complex situations and like solving them. However, ARs are negative towards the non-rhetorical ad, and get the lowest values for levels 1 and 2 of ambiguity. Then, values grow slightly on level 3. Individuals who are intolerant to ambiguity present positive ARs in the case of absence of rhetoric and when the level of ambiguity is the lowest (level 1). For levels 2 and 3, positive ARs reach their minimum. The negative ARs are function of the level of ambiguity. The more ambiguous the ad is, the more negative the emotions are. The non-rhetorical ads are more effective for these persons, who reveal a TA to a certain threshold, above which the rhetorical ambiguity effect is reversed. These results are pertaining to the hypotheses H6 and H7. The first states that individuals with a higher TA prefer ambiguous advertisements to those which are less, whereas the second stipulates that individuals with a weak TA adopt negative emotional reactions towards the ambiguous stimuli. This hypothesis is validated since results highlight that for individuals who are intolerant to ambiguity, negative ARs will be amplified depending on the ambiguity level.

If the moderating role of TA is not taken into account, our findings are more congruent with previous studies defending and proving the persuasiveness of complex figures (Philips and McQuarrie, 2009; Ketelaar et al., 2008; Van Enschot et al., 2005; Philips, 2000; McQuarrie and Mick, 1992, 1996; Hoch and Ha, 1986). Indeed, H1 which stipulates that more complex advertisements are appreciated more than less complex ones is then partially validated. This is in contradiction with the ambiguity aversion theory defending that “all else equal, consumers prefer the alternative with the least ambiguity” (Hazen et al., 2012, p. 787).
H2 which states that there is a threshold above which the complexity effect on persuasion becomes negative is validated. These results are convergent with other studies which highlight the dependence between rhetorical ambiguity effectiveness and TA (Owen and Sweeney, 2002). People with a low TA reject ambiguous stimuli and prefer those requiring little cognitive effort. Those with a high TA perceive the ambiguous stimuli as desirable, interesting and presenting a challenge (Grant et al., 2010; Furnham and Ribchester, 1995). TA interacts with the rhetorical figure so that individuals who are tolerant to ambiguity appreciate more rhetorical ads. The more ambiguous is the advertisement, the better it is. H3, presenting the rhetorical advertisement as having a significant effect on the emotions is also validated. Indeed, rhetorical ambiguity affects the emotional reactions started by the ad, but the effects do not have the same direction. It negatively affects the positive emotional reactions, and positively affects the negative ones.

**Mediating role of comprehension between ambiguity and persuasion**

Rhetorical ambiguity significantly affects ad comprehension. Findings underline the variation of this effect according to level of TA. For the group which is tolerant to ambiguity, the higher is the ambiguity level, the better is the comprehension. People belonging to this group have the impression that the more complex is the ad, the more it is understandable. For persons who are intolerant to ambiguity, there is a little variation on subjective comprehension between the non-rhetorical advertisement and the first level of ambiguity. For levels 2 and 3, this group presents a good comprehension, which is reinforced according to the level of complexity. H4, which presents high level of ambiguity as negatively affecting comprehension, is consequently rejected. Affected by rhetorical ambiguity, comprehension has, in turn, a significant impact on emotions. It affects negatively the positive ARs, and positively the negative ones. H5, stipulating that comprehension has a mediating role between ambiguity and emotions, is then validated. This result converges with researches which explain that the more understandable is the message, the less it generates positive emotions. The receiver is attracted by difficult messages, requiring a resolution effort (Lagerwerf, 2008; McQuarrie and Mick, 1996, 1992). This can be
partially explained by the role of TA, which makes that some individuals prefer relatively complex situations.

**Conclusion**

In spite of the ubiquitousness of rhetorical figures in advertising, academic research is actually sporadic (Madupu and al. 2017; Mohanty and Ratneshwar, 2014). But what does really matter in an ad is not the type of rhetorical figure but its deviation level (McQuarrie and Mick, 1996) and its ambiguity (Ha and Hoch, 1989). Several interpretations are possible through the manipulation of ambiguous stimuli. Ads comprise more and more rhetorical figures which stimulate elaboration (Philips and McQuarrie, 2002; O' Donhoe, 2001). Interpretation represents from now on a challenge (Yannopoulou and Elliott, 2008; Kates, 2002). Some researches were interested in complexity of rhetorical advertising, but the results are mitigated. In several studies, the most complex figures are preferred to the less complex ones (Van Mulken and al. 2010; Van Enschot and al. 2005, Philips, 2000; McQuarrie and Mick, 1992). A second group of researchers defends the use of moderately complex figures (Philips and McQuarrie, 2009; Van Enschot and al. 2008, McQuarrie and Mick, 2003; Philips, 2000; McQuarrie and Mick, 1992). Others subject the appreciation of a complex ad to a particular condition: its comprehension (McQuarrie and Philips, 2005). Lastly, a fourth group preaches the superiority of not rhetorical ads. Complexity is negatively correlated with the appreciation of the advertisement (Van Mulken and al. 2010).

The role of comprehension in persuasion is the subject of very rare work (Ratneshwar and Chaiken, 1991). Few researchers empirically checked the relation between comprehension and its subsequent effects (Jaffe and al. 1992). The few existing results are contradictory.

In spite of its theoretical and managerial interests, this research is not free from limits which open many prospects for research.

True advertisements were used to reinforce the external validity of the study as well as the authenticity and the applicability of its results (Thorson, 1990). Moreover, the advertisements used are foreign, in order to eliminate any personal experience and to increase
the internal validity. This constitutes however a limit compared to a much more complex reality, requiring much more elements (brand loyalty, product knowledge, proximity of stores...).

This study can guide future researches to compare various figures and to put forward the specific effect of each one of them. Indeed, rare studies are interested in one particular figure. Burgers and al.(2011) were interested in irony and demonstrated that it is appreciated only when it is relatively easy. Barbu-Kleitsch (2015) concentrated on another particular figure: the hyperbole. She made a comparative study between an advertisement containing a hyperbole and another not containing any rhetorical device. The findings highlight a more persuasive effect for the rhetorical ad. It is also crucial to examine the moderating variables which affect the persuasiveness of each particular type of figures: individual differences such as the need for cognition, tolerance to ambiguity, optimal level of stimulation, product knowledge, implication level, etc. Finally, there is a lack in consideration of cultural context. The figures have a personality and create a different environment according to the cultural context (McQuarrie and Mick, 1996). Reproducing this study in a country of different culture would make it possible to carry out an intercultural comparison which would be interesting to examine the effect and significances extracted from the different figures.
REFERENCES

AKROUT F., Les Méthodes des équations structurelles, 1 ère édition, URM, Tunisia, 2010.


DERBAIX C., « L’impact des réactions affectives induites par les messages publicitaires : une analyse tenant compte de l’implication », Recherche et Applications en Marketing, 10, 2, 1995a ,4-29.


