ANGER metaphors  
in American English and Kabyle  
The effect of culture  

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The position standardly held in cognitive linguistics is that anger is an emotion concept that communicates about human thinking and which is instantiated in language in ways that are often metaphorically, systematically, and conceptually structured. The container metaphor is claimed to be near-universal (Kövecses 2000), but also subject to variation (Kövecses 2005). Variation in metaphor frequencies across languages has also been investigated (Boers & Demecheleer 1997; Boers 1999; Deignan 2003; Kövecses et al. 2015). This article reports a corpus-based contrastive investigation of anger metaphors in American English and Kabyle — a Tamazight language variety spoken in the northern part of Algeria. Its main objective is to contrast these metaphors and try to find out the most used ones in these languages through a qualitative and quantitative analysis of the token frequency of linguistic expressions belonging to each of the conceptual metaphors, the type frequency of their linguistic realizations, and the number of their mappings. Aspects of the anger scenario are also studied and contrasted. The findings indicate similarities and differences in the use of anger metaphors in the two languages. The three most frequently used metaphors in American English involve the container, possessed object and opponent source domains while the most frequently used ones in Kabyle involve the fire, container and possessed object source domains. These results confirm the near-universality of the container metaphor. However, the most frequently used metaphorical source domain concept is different in the two languages due to sociocultural influences. In addition, the findings relating to aspects of the anger scenario (intensity and control) support Lakoff and Kövecses’ (1987) prototype model of anger, although it is found to be influenced by sociocultural specificities in American English and Kabyle.  

Keywords: anger metaphors, corpus salience-based analysis, metaphorical mappings, type frequency, token frequency, aspects of the anger scenario, sociocultural specificity, American English, Kabyle
1. **Introduction**

The metaphorical and metonymical expressions of emotions, such as anger, are not randomly produced; instead, they obey the rules of a coherent system and thus are systematically and conceptually structured, as argued by Lakoff and Kövecses (1987). Anger metaphors have been explored in American English and in other languages. This has resulted in the uncovering of a number of conceptual metaphors of anger (Lakoff 1987; Lakoff & Kövecses 1987; Yu 1995; Maalej 2004; Aksan 2006). Variation in metaphor preferences and frequencies across languages has been investigated by a number of researchers (e.g., Boers & Demecheleer 1997; Boers 1999; Deignan 2003; Kövecses et al. 2015). The present article offers a contrastive study of anger metaphors in American English and Kabyle — a variety of the Tamazight language spoken in the northern part of Algeria, mainly in Tizi-Ouzou, Béjaia, Bouira, and Sétif. Kabyle is spoken by 4 million Kabyle people that make up 30% of the Algerian population (see Lacoste-Dujardin 2001: 61). As far as I know, no study of Kabyle metaphors has ever been conducted. The hope is that a study of anger metaphors in a lesser known language such as Kabyle may shed light on the relationship between language and culture.

Two main concerns will be focused on here: first, what the most prominent metaphors are, and second, the aspects that characterize the cultural model of anger in the two languages and cultures. So, the aim is to look for the metaphors that are most frequently used and those that are highly elaborated in the two languages and cultures. The present work begins with a brief review of the relevant literature concerning anger metaphors; moves on to a description of the method that is employed, and then summarizes the results of the investigation. The study shows that anger metaphors are influenced by sociocultural specificities in American English and Kabyle. This is discussed in the final section.

2. **Background**

Studies on metaphorical expressions of anger have revealed their frequent presence in everyday discourse and their systematicity at the conceptual level. In their article *The Cognitive Model of Anger Inherent in American English*, Lakoff and Kövecses (1987) investigated anger expressions used in American English and established a set of anger metaphors that systematically structure the thoughts of American speakers. These metaphors include ANGER IS HEAT, ANGER IS INSANITY, ANGER IS AN OPPONENT (IN A STRUGGLE), ANGER IS A DANGEROUS ANIMAL, ANGER IS A BURDEN, and so on. Kövecses (2000: 22) claimed that “the conceptual metaphor that seems to be the central one for anger is ANGER IS A HOT FLUID IN A CONTAINER. Its centrality
derives from two sources: One is that the container metaphor captures many different aspects of the concept of anger. The other is that it is highly elaborated both in terms of its metaphorical entailments and its conventionalized vocabulary.

Gibbs (1996:316) drew attention to Johnson’s concept of CONTAINMENT (1987) in the anger is heated fluid in a container metaphor, and pointed out that: “An important part of bodily containment is the experience of our bodies being filled with liquids including stomach fluids, blood, and sweat. Under stress, we experience the feeling of our bodily fluids becoming heated. These various, recurring bodily experiences give rise to the development of an experiential gestalt, called an image schema, for containment.”

Gibbs (1996:314) investigated the link between “complex idiomatic meanings of expressions” and “people’s non-linguistic, and in part, embodied, understanding of particular source domains.” His claim was that people’s comprehension of such idioms as “blow your stack, flip your lid, or hit the ceiling” came from their understanding of anger as something caused by internal pressure. He therefore concluded that “important connections exist between people’s non-linguistic understanding of many concepts and their use of various metaphorically motivated linguistic expressions” (Gibbs 1996).

Kövecses (2006:5) examined the role of pressure in the conceptualization of anger from a diachronic perspective:

Pressure was a major part of the conceptualization of anger until around 1300, but then it began to decline, only to emerge strongly again, together with heat, in the form of the hot fluid in a container metaphor centuries later. The point is that we should not expect any of the conceptualized responses associated with anger to remain constant in conceptualizing anger (and the emotions in general) throughout the ages.

Cross-cultural variation in metaphor preferences and frequencies has been explored by a number of scholars (e.g. Boers & Demecheleer 1997; Boers 1999; Deignan 2003; Kövecses et al. 2015). Boers and Demecheleer (1997) investigated metaphors for economics in English, French, and Dutch and found that the same metaphors were used, but that the rate of recurrence differed from one language to another. For instance, metaphors relating to gardening were found more frequently in English than in French, while metaphors relating to food were found to be almost equally frequent in both English and French. They explained this in terms of the cultural status given to gardening and food in English and French culture.

Boers (1999:48) investigated cross-cultural variation on metaphor use through quantitative corpus-based studies of socio-economic discourse and found that “health metaphors (e.g. The market cure), are more productive in English than in Dutch.” He argued:
… a given metaphor may be more typical of the discourse of one community than that of another. One way of measuring the degree of popularity or conventionality of a certain metaphor in a community is counting its frequency of occurrence. Using this frequency principle may point to different preferences of image-schema based metaphors… (Boers 1999)

In his study, he suggested the existence of a relationship between bodily experience and abstract thought and maintained that the human body’s saliency in daily experience leads to its frequent use in metaphorical mappings. He provided the example of the source domain of health that is salient in winter time and influences its use in socioeconomic discourse. He relied on a sample that he extracted from issues of the English magazine The Economist over a ten-year period, and then studied the metaphorical expressions relating to economy. He demonstrated the influence of seasonal variation upon the frequency of use of health metaphors in socio-economic discourse, establishing the contextual factors (winter time and illness) that lead individuals to use these metaphors instead of others.

Deignan (2003) relied on corpus linguistics and investigated the impact of the saliency of some source domain concepts upon the amount of metaphors production across some different languages. She discovered differences in the frequency of use of metaphors in the different languages and drew attention to the historical origin of many of the metaphorical expressions that she studied.

Kövecses et al. (2015) conducted a qualitative and quantitative analysis on corpora including metaphorical linguistic expressions of anger in four languages: English, Spanish, Turkish, and Hungarian. This was carried out on the basis of a salience-based metaphor analysis with regard to three parameters: the number of mappings in a conceptual metaphor, the type frequency of linguistic expressions belonging to a conceptual metaphor, and the token frequency of linguistic expressions belonging to a conceptual metaphor. The findings indicated that the top three conceptual metaphors ranked according to their metaphorical salience in the four languages were:

American English: (1) container, (2) possessed object, (3) opponent
Spanish: (1) possessed object, (2) opponent, (3) container
Turkish: (1) container, (2) natural force, (3) opponent and possessed object
Hungarian: (1) container, (2) opponent, (3) possessed object

The above-mentioned metaphors are referred to by the source domain concepts involved (Kövecses et al. 2015: 354). These findings revealed that the three main metaphors with regard to metaphorical salience were the same in the four languages, namely, container, opponent, and possessed object, except for the natural force metaphor that was shown to be the second of the three major
metaphors in Turkish. They explained this phenomenon by the fact that both intensity and control are dominating aspects of the concept of anger in the four languages. In addition, they concluded that “in all four languages/cultures under study, people must have remarkably similar cultural models of anger” (Kövecses et al. 2015:357).

Cultural and communicative context has been proved to influence metaphor use and lead to the manifestation of cross-cultural variation. Kövecses (2009:18), for example, explained that some factors relating to culture and the communicative situation lead to the selection of a particular metaphor instead of another. These factors are determined by such parameters as the “physical environments, social contexts and communicative situation” shared by a group of individuals. Kövecses (2009) refers to these factors in terms of the “pressure of coherence.”

MacArthur (2016) drew on Kövecses’ work (2005, 2009) to advocate that “the hybrid metaphors of L2 speakers arise from the “pressure of coherence” (Kövecses, 2005, 2009), in this case the pressure to be coherent with one’s own native metaphorical language and conceptualizations, which are bound to differ in significant ways from that of the L1 speaker of English.” She defined hybrid metaphors as “the metaphors that result from the mixing of two linguistic and conceptual systems and their affordances in terms of wordings or culture-specific conceptualizations.”

Lakoff and Kövecses (1987:210–211) proposed a prototype scenario for anger. In their view, metaphors and metonymies “converge on a certain prototypical cognitive model of anger […] The model has a temporal dimension, and can be conceived of as a scenario with a number of stages” as follows; stage 1: offending event, stage 2: anger, stage 3: attempt at control, stage 4: loss of control, and stage 5: act of retribution. “[A]nger is understood in our model as a negative emotion. It produces undesirable physiological reactions, [and] leads to an inability to function normally” (Lakoff & Kövecses 1987:205). Moreover, this scenario is characterized by two major aspects: the intensity of the emotion and keeping or losing control over it. Kövecses et al. (2015) demonstrated that these two aspects characterized the concept of anger in not just American, but also Spanish, Turkish, and Hungarian cultures. In addition, intensity was shown to characterize the container metaphor, while control related to both the opponent and container metaphors in all four cultures.

2.1 Anger in Kabyle

It is important to give to the reader some idea about the expression of anger in Kabyle before starting the report. In Kabyle, the concept anger is not only rendered in the literal linguistic forms lyid, zeaf, reffu, urrif, urfan (plural form of anger), yerfa, yezeef (he got angry), but in metaphorical expressions as well. In the
Dictionnaire Kabyle-Français, Dallet (1982:925) provides some of these expressions, such as, *yezza wul-is,* “he was angry” (lit. “his heart roasted”) and, *yessary-iyi tasa-w,* “he made me angry” (lit. “he burnt my liver”). As shown in these examples, anger is related to specific body organs: the heart and the liver. In the present investigation, all the linguistic anger-related terms cited above were taken into account in the collection of anger metaphorical expressions, so that the sample would not be too limited.

3. Methods of data collection and analysis

The account of anger metaphors in Kabyle was based on a corpus of 255,736 words. To build up the Kabyle sample, metaphorical linguistic expressions of anger were collected from the daily French-language newspaper *La Dépêche de Kabylie,* available at http://www.depechedekabylie.com/. The paper contains local news. Articles from the sections of the paper dealing with political, cultural, and social issues were used. One edition in Kabyle was issued per week. This made four editions per month. In total, 192 issues of this newspaper were consulted covering 2010, 2011, 2012, and 2013. The procedure used to collect the tokens of metaphorical linguistic expressions of anger was a simple search on the computer using the following key words: *lyid,* “anger,” *urfan,* “angers,” *reffu,* “anger,” *urrif,* “anger,” *zeaf,* “anger,” *ul,* “heart,” *tasa,* “liver,” *times,* “fire,” *zza,* “roast,” *kwa,* “iron,” *zzit,* “oil,” *bwa,* “bake,” and *rya,* “burn.” The literal were then separated from the metaphorical expressions. Through an examination of the basic meanings of words, these expressions were classified according to the conceptual metaphors from which they derive. For instance, the basic meaning of the words making up the metaphorical Kabyle expression *Tameṭṭut tečča times,* lit. “The woman ate fire” was examined by referring to Dallet’s (1982) *Dictionnaire Kabyle-Français.* This has led to the classification of this metaphorical linguistic expression within the anger is fire metaphor. Some metaphorical linguistic expressions have been doubly classified. For example, in the Kabyle expression *Deg ulawen n lyaci, times, tin ur nxetti,* “In the hearts of people, there is fire that does not go out,” the examination of the basic meaning of words has revealed that *ulawen,* “hearts” are viewed as containers for *times,* “fire,” since hearts are described as containing fire. This classification of metaphorical linguistic expressions of anger allowed a qualitative and quantitative study of the conceptual metaphors, the tokens of the linguistic expressions, and the types of linguistic expressions for each conceptual metaphor. I furthermore tried to determine the mappings involved in these metaphors and the aspects that characterize the scenario of anger in each of them. It is worth mentioning that the anger conceptual metaphors are referred to below by the source domain they
involve. For instance, *anger is an entity in a container* is referred to simply as the container metaphor. The doubly-classified metaphors, such as *anger is fire in the heart*, are referred to by both the container and fire source domain concepts.

To analyze the data, I relied on the methodology adopted by Kövecses et al. (2015), which in turn was mainly based on that employed by Szélid and Geeraerts (2008). A qualitative and quantitative analysis was conducted on a corpus comprising 143 metaphoric linguistic expressions of anger in Kabyle. The total number of words that made up the corpus was 255,736. The study was based on a salience-based metaphor analysis with regard to three parameters: the number of mappings in a conceptual metaphor, the type frequency of linguistic expressions belonging to a conceptual metaphor, and the token frequency of linguistic realizations belonging to a conceptual metaphor. Then, the aggregate value for each metaphor was calculated. This value represented the sum of the percentages of the mapping types, the type frequency of linguistic expressions, and the token frequency of linguistic realizations. For instance, the aggregate value of the container metaphor in Kabyle is the sum of the percentage of all tokens (18.18%), the percentage of all types of a conceptual metaphor (25.39%), and the percentage of all types of metaphorical mappings (32.25%), which equals 75.83%, as shown in Table 2 in Appendix 2. This aggregate value indicates the metaphorical salience of the container metaphor. Next, the results found in Kabyle were contrasted with those of the qualitative and quantitative analysis that Kövecses et al. (2015) performed on a corpus of 876 metaphorical linguistic expressions of anger in American English collected from the *Corpus of Contemporary American English*. According to their results, three prominent anger conceptual metaphors stand out in this language in the following order: the container (aggregate value = 45.92%), the possessed object (aggregate value = 32.21%), and the opponent (aggregate value = 31.90%). A summary of the results of the salience-based analysis of anger in American English is given in Table 1 in Appendix 2. In addition to the quantitative and qualitative analysis of metaphors, the study also dealt with the intensity and control aspects characterizing the cultural model of anger in Kabyle and contrasted these aspects with those characterizing the cultural model of anger in American English as described by Lakoff and Kövecses (1987).

4. Results

An examination of the corpus of 255,736 words on which the study was based revealed 143 metaphorical expressions. These 143 tokens of linguistic expressions were the instantiations of various metaphors of anger: container, possessed
anger metaphors in American English and Kabyle

OBJECT, FIRE, BURDEN, and so on. I described and classified the anger metaphors found in the corpus according to their metaphorical salience. As shown in Table 2 in Appendix 2, the three most prominent metaphors in Kabyle were FIRE, CONTAINER, and POSSESSED OBJECT. I looked at each of these metaphors and calculated the number and percentage of occurrence of all tokens of the linguistic expressions each of them instantiates, and their types. I also determined the number and percentage of the metaphorical mappings it involved, and finally, I examined the aspects characterizing the scenario of anger.

4.1 ANGER in Kabyle: Salience-based analysis

The account of the three prominent anger metaphors and their metaphorical expressions and metaphorical mappings in Kabyle began with the FIRE metaphor, which was the most frequently used of all the metaphors in the corpus, and continued with the CONTAINER and POSSESSED OBJECT metaphors, which were the second — and third — most frequently used metaphors respectively.

The FIRE metaphor

The FIRE metaphor was the first most prominent of all the metaphors, with an aggregate value of 93.08 %. Therefore, the source domain that was most frequently used to conceptualize anger in the Kabyle corpus I analyzed was FIRE. The corpus provided 44 instances of metaphorical linguistic expressions involving this conceptual metaphor. In these expressions, the angry person was described as being burnt, as in Example 1, as eating fire, as in Example 2, or as having their liver burnt, as in Example 3.

(1) Śtimes iw ryiy…
   with fire-fem my burnt-I
   “My fire burnt me…”

(2) Tameṭṭut tečča times.
   woman she-ate fire-fem
   “The woman ate fire.”

(3) kenfent taswin.
   burnt-they-fem livers-fem
   “The livers burnt.”

In addition, intense anger was described as the result of adding oil to fire. The overall frequency rate for these expressions came to 30.76 %, the highest of all the metaphorical expressions found in the corpus. Such a result is significant for understanding anger in Kabyle. The results also indicated that the FIRE metaphor
was the most elaborated in the corpus. It involved eight mappings and was realized linguistically by 23 types of metaphorical expression; at 36.50%, this was the highest percentage of all the types of linguistic expression (see Table 2 in Appendix 2). Two conceptual metaphors are involved in this case: ANGER IS FIRE and ANGER IS FIRE IN A CONTAINER.

ANGER IS FIRE is characterized by six mappings, stated and illustrated in Examples 4 to 11. Examples 4 to 6 all demonstrate the mapping GROWING INTENSITY OF ANGER IS GROWING INTENSITY OF FIRE. In Examples 5 and 6 the verbs teţkufut, “effervesces” and yenfufed, “rise and spread” denote an increase in the degree of intensity of fire.

(4) GROWING INTENSITY OF ANGER IS GROWING INTENSITY OF FIRE

D ayen i yernan zzit i tmes!1
PART what that added oil-fem to fire-fem
“This is what added oil to fire!”

(5) GROWING INTENSITY OF ANGER IS GROWING INTENSITY OF FIRE

…tiswiein teţkufut-d times si kenfent tassiwin…
sometimes she-effervesces-part fire-fem that burnt-they-fem livers-fem
“…sometimes, the fire that burnt livers effervesces…”

(6) GROWING INTENSITY OF ANGER IS GROWING INTENSITY OF FIRE

Lyid d-yessebgen wegdud n Tunes yenfufed ddaw
the-anger part-he-showed the-people of Tunisia he-rose under
iţiğiyyden alammi yelheq Maser
ashes until he-reached Egypt
“The anger shown by Tunisian people rose from the ashes and spread to reach Egypt.”2

(7) DECREASE IN INTENSITY OF ANGER IS DECREASE IN INTENSITY OF FIRE

…tensa deg yixfawen.
she-goes-out in the-heads
“…fire goes out in people’s heads.”

(8) ANGER IS FIRE CONSUMING A PERSON

…times a ten tşery.
fire-fem will them she-burn
“…fire will burn them.”

1. The word times, “fire” changes its form to become tmes, because it occurs after the preposition i, “to.”

2. This reflects the ANGER IS FIRE metaphors. In Kabyle, iţiğiyyden, “ashes” are believed to contain fire that can be very dangerous, especially for babies (see Dallet 1982: 730–731).
ANGER IS FIRE BEING EATEN

Amusnaw mni yečča times.
scientist that he-ate fire-fem
“That scientist ate fire.”

ANGER IS THE HEART BEING BAKED OVER FIRE

Bwan wulawen
baked the-hearts
“The hearts baked over fire.”

ANGER IS FIRE BURNING THE LIVER

Tuyal asen d times yesseryayen tasa
she-became to-them part fire-fem that-is-burning the-liver
deg yiman nsen.
in self of-them
“To them, it became the fire that burns the liver inside themselves.”

ANGER IS FIRE IN A CONTAINER is characterized by two mappings, shown in Examples 12 and 13.

ANGER IS FIRE IN THE HEART

Deg ulawen n lyaci, times, tin ur nxetfi.
in hearts of people fire-fem the-one-fem not go out
“In the hearts of people, there is fire that does not go out.”

ANGER IS FIRE IN THE BODY

Amedyaz Ireq s ucyud n lhejna n tmes
poet burns with the-heat of flame-fem of fire-fem
i d-yetenkaren deg yiman n yiman-is.
that part-it-is-growing in the-self of self-his
“The fire growing inside the poet burns him.”

The CONTAINER metaphor

The second prominent anger metaphor is the CONTAINER, with an aggregate value of 75.83 %. I found 26 metaphorical linguistic expressions of the CONTAINER metaphor in the corpus. This number represented 18.18 % of all the metaphorical expressions found. Although this metaphor ranked second in terms of frequency, it is an elaborated one. It manifested itself in the form of 16 types of linguistic expression (25.39 %) and was characterized by ten mappings (see Table 2 in Appendix 2). This means that the CONTAINER metaphor was realized through the highest number of metaphorical mappings. The authors of these metaphorical linguistic expressions conceptualized their hearts or bodies as containers for anger which they considered as fire, a hot fluid, or compressed air. Sometimes the fluid or air is kept
inside (see Example 20, below), or it may come out (see Example 23, below), or be poured out (see Example 17, below). Three conceptual metaphors are involved in this case: ANGER IS FIRE IN A CONTAINER, ANGER IS A SUBSTANCE IN A CONTAINER and ANGER IS A FORCEFUL ENTITY IN A PRESSURIZED CONTAINER.

There are two mappings characterizing the ANGER IS FIRE IN A CONTAINER metaphor:

ANGER IS FIRE IN THE HEART (see Example 12, above), and
ANGER IS FIRE IN THE BODY (see Example 13, above).

There are five mappings characterizing the ANGER IS A SUBSTANCE IN A CONTAINER metaphor, stated and illustrated in Examples 14 to 18 below. In Example 14, the verb yeččur indicates that the level of anger is at the limit of the heart.

(14) **THE LEVEL OF INTENSITY IS THE LEVEL OF THE LIQUID IN THE CONTAINER**

Yeččur wul…
he-is-filled-up the-heart
“The heart is filled up…”

(15) **GROWING INTENSITY IS THE RISING OF THE LIQUID**

Urrif n yimezday n temdint n Tizi-wezzu d win
anger of the-inhabitants of town-fem of Tizi-Ouzou part the-one
yennernan mačči d kra…
that-rises not part little
“The anger of the inhabitants of Tizi-Ouzou town rises excessively…”

(16) **GROWING INTENSITY IS THE GROWING HEAT OF THE LIQUID**

...d wurfan yeţeyzagen deg wul n unazur.
and the-angers that-are-boiling in the-heart of the-artist
“…and angers that boil in the heart of the artist.”

(17) ** LOSING CONTROL IS THE LIQUID BEING POURED OUT OF THE CONTAINER**

...smaren reffu nsen.
poured-out they anger of-them
“..they poured out their anger.”

(18) **COMPLETE LOSS OF CONTROL IS THE LIQUID BEING OUTSIDE THE CONTAINER**

Tanekra n tmeţţut anda i d-tessuffey ayen yellan
rebellion of woman where that part-she-released what there-was
deg wul-is.
in heart-her
“The woman’s rebellion where she released all that is in her heart.”
Example 18 was extracted from an article about a women’s march in the streets of Tizi-Ouzou to celebrate Women’s Day, where they showed their anger and dissatisfaction to governmental authorities.

There are three mappings characterizing the anger is a forceful entity in a pressurized container, as illustrated below.

(19) **Controlling anger is keeping the liquid inside the container**

\[ \text{Udem-is yeqlelles.}^3 \]

face-his he-was-blue

“His face was blue.”

(20) **Controlling anger is keeping the liquid inside the container**

…ul yeqber

the-heart he-is-compressed

“…the heart is compressed.”

(21) **Losing control is substance going out of the container causing explosion**

\[ Ul \ yetterdeq. \]

heart he-exploded

“The heart exploded.”

(22) **Losing control is air going out of the container causing audible noise**

…ul yeguree-d urfan-is.

heart he-belched-part angers-his

“…the heart belched its angers.”

(23) **Losing control is air going out of the container causing audible noise**

D nehta yedfer wurrif…

part sigh he-follows the-anger

“It is the sigh that anger follows…”

**The possessed object metaphor**

The third-most salient anger metaphor is the possessed object, with an aggregate value of 35.63%. I found 35 metaphorical expressions where anger is described as an object that a person, or group of persons, owns. Kövecses (2000) maintained that the attributes are possessed objects metaphor applies to each emotion and thus to anger as in such metaphorical linguistic expressions as:

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3. In Kabyle, the word *yeqlelles*, “is blue” or “is dark” describes an angry person’s face whose colour changes because of a lack of oxygen that leads to bad blood circulation, and thus, to blood compression.
The 35 linguistic expressions found in the corpus correspond to 24.47% of the total. Furthermore, I found five types of linguistic expression relating to this conceptual metaphor, representing 7.93% of all the types of linguistic expression. This conceptual metaphor is characterized by only one mapping; that is, anger is a possessed object. This makes it the least elaborated of the three major metaphors.

4.2 Aspects of the anger scenario in Kabyle

An examination of aspects of the anger scenario in the above Kabyle metaphors allows us to consider the manifestation of intensity and control. As the data already cited suggest, intensity relates primarily to two of the metaphors, namely, anger is fire and anger is an entity in a container. Intensity is apparent in the mappings of both the container and fire metaphors. The keeping control and losing control aspects are only found to characterize the container metaphor.

5. Contrast and discussion

The salience-based analysis allowed the uncovering of three key metaphors according to their metaphorical salience in Kabyle. The results of the analysis are given in Table 2 in Appendix 2. This section contrasts and discusses the results obtained from the study of anger metaphors in both American English (Kövecses et al. 2015) and Kabyle, focusing on two issues: the three major conceptual metaphors and the characterization of the cultural model of anger. The discussion of the results of the contrastive analysis is conducted with reference to the theory of cross-cultural variation of metaphor (Kövecses 2000, 2005) and the theory of the pressure of coherence (Kövecses 2009).
5.1 The three major conceptual metaphors

The main findings obtained through the salience-based analyses of anger metaphors in American English (Kövecses et al. 2015) and Kabyle are as follows:

American English: (1) container, (2) possessed object, (3) opponent
Kabyle: (1) fire, (2) container, (3) possessed object

These findings show that the metaphorical source domain that was most frequently used to conceptualize anger in American English was container, whereas the metaphorical source domain that was most frequently used to conceptualize anger in Kabyle was fire. Though both the container and possessed object metaphors were common to the two languages, they appeared in different positions; this suggests that the container and possessed object source concepts were more important in American English than they were in Kabyle, and that fire was more important in Kabyle than it was in American English. It is worth pointing out that the opponent metaphor was absent from the Kabyle data, while it ranked third in American English. Conversely, the fire metaphor, though it existed in American English, was not one of the three main metaphors, whereas it ranked first in Kabyle.

Kövecses (2000) considered the container concept to be the major metaphorical source domain for emotions. In his view, “[t]he container image defines an “inside–outside” perspective for the human body” (Kövecses 2000: 37). He thus described the container metaphor as being near-universal, because the conceptualization of emotions with reference to the body exists in many of the world’s languages. The present results serve to support this claim. In fact, the container metaphor ranked among the three most frequently used metaphors in both American English and Kabyle. This similarity can be explained with reference to American and Kabyle people’s stressful lives.

“American culture has often been associated with high-stress lifestyles due to efforts to attain the ‘American dream’…” (McDonogh et al. 2001: 1082). The American society’s way of living is known to have been characterized for several decades by excessive stress due to various psychological and social problems. Indeed, the American Psychological Association (2010) researched the topic and concluded:

As the U.S. economy continues to struggle for the third year, findings from the 2010 Stress in America survey paint a picture of an overstressed nation. Feeling the effects of prolonged financial and other recession-related difficulties, Americans are struggling to balance work and home life and make time to engage in healthy behaviors, with stress not only taking a toll on their personal physical health, but also affecting the emotional and physical well-being of their families. (American Psychological Association 2010: 5)
They also contended that “…money (76 percent), work (70 percent) and the economy (65 percent) remain the most oft-cited sources of stress for Americans. Job stability is on the rise as a source of stress; nearly half (49 percent) of adults reported that job stability was a source of stress in 2010” (American Psychological Association 2010: 8).

Bad family relationships and friendship are also recognized as sources of stress: “Americans also recognize that they are falling short in just about all areas of well-being, from the quality of their relationships with family and friends to getting enough sleep” (American Psychological Association 2010: 12).

Stress has important repercussions for individuals; as Arden (2002: 9) maintained, “stress affects your body, your thoughts, your emotions, and the way you interact with people.” For instance, job stress provokes anger that leads to the rise in blood pressure and hypertension.4 Larkin (2005: 136) believed “there is convincing evidence that exposure to certain stressors (harassment, goal blockage, criticism) evokes both substantial state anger and blood pressure responses among individuals …”5

He also claimed that “workers with high job stress who suppressed anger exhibited higher blood pressures than either workers who had less job stress or who expressed anger openly.” (Larkin 2005: 234).

Kabyle society has also been subject to intense stress for more than two decades due to acts of terrorism and violence (see Lacoste-Dujardin 2001; Boudarene 2005). Kabyle youths have been overwhelmed by violence, particularly that of gendarmes and governmental authorities. As Lacoste-Dujardin (2001: 84) stated, “la jeunesse [kabyle] bouillonne d’idées et piaffe, exaspérée, révoltée, plus que jamais rebelle à un pouvoir qui se discrédite par ses exactions. Beaucoup de ces jeunes sont de plus en plus en colère. Ils ne veulent plus accepter toute cette violence…” This quotation says that Kabyle youths are exasperated and rebellious against governmental authorities for their abuses. Many of these young people are increasingly angry. They refuse to tolerate this violence.

Kabyle psychiatrist Boudarene (2005) drew attention to the stressful situation created by the events that occurred in Kabylia, in the spring of year 2001. He contended that “Les récentes et violentes émeutes ‘du printemps noir’ de Kabylie survenues en avril 2001 sont venues compliquer une situation psychosociale déjà largement fragilisée par le terrorisme” (Boudarene 2005: 144). This quotation means that the violent riots of the “black spring” that occurred in April 2001 in Kabylia made

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4. Job stress “refers to the process through which employees perceive, appraise, and respond to adverse or challenging demands at work” (Rosen et al. 2010: 2).

5. ‘State anger’ is defined as “acute anger responses to stressful encounters” (Larkin 2005: 136).
the psychosocial situation of Kabyle people grow more complex than it was during the period of terrorism.

All in all, both American and Kabyle people’s way of life is extremely stressful. This leads to a rise in blood pressure which in turn may lead to the use of the container metaphor by American and Kabyle people to express their anger, as shown in the findings of Kövecses et al. (2015) and the findings relating to anger in Kabyle. Using experiential reasoning, Kövecses (2000: 159) offered an explanation of how it is that blood plays an important role in the conceptualization of this metaphor, when he said:

Since human blood is present in many of the linguistic examples we have seen, it is reasonable to assume that it is mainly blood (but perhaps some other body fluids as well) that accounts for the fluid component in the container metaphors. Many of the examples suggest that blood is often seen as producing an increase in blood pressure when a person is angry, and this, together with muscular pressure, may be responsible for the pressure element in the container metaphors.

In recurring stressful situations of stress and anger, blood pressure rises. This fact may contribute to making both American and Kabyle speakers describe their anger metaphorically through the image of a pressurized container. Gibbs (1996) accounted for people’s conceptualization of anger with reference to the pressure occurring inside their bodies under stress, which he described as bodily containment (Gibbs 1996: 316). Therefore, one can conclude that there may be a tight relationship between the American and Kabyle societies’ stressful lives and the use of the conceptual source domain of container to conceptualize anger.

However, a significant difference has to be accounted for. While in Kabyle the metaphorical source domain fire dominates the conceptualization of anger, the container domain is prevalent in American English. This raises the issue of whether the cause can be attributed to cultural specificity. In other words, is there any peculiar aspect characterizing the Kabyle culture that led to this cross-cultural difference? I believe that this is indeed the case. To argue this position, it is necessary to consider a pertinent sociocultural characteristic of Kabyle society, in order to determine its cultural influence upon the overwhelming use of the fire source domain concept in Kabyle culture.

In Kabyle society, the concept of fire has considerable cultural significance. It is part of Kabyle people’s everyday lives and plays an important role inside and outside their homes. It is also involved in the way they earn their living: it is used, for example, to keep the home warm in winter, to cook food, to shape tools for farming, to bake clay, and to make pottery. In Kabyle culture, fire is believed to be characterized by a sterilizing ability. It furthermore symbolizes fertility and prosperity, and because of its importance, women are required to preserve a fire
inside their homes and never let it go out. Indeed, as Lacoste-Dujardin (1970: 239) said:

\[ ... il appartient aux femmes, dans un rôle quasi sacerdotal, de veiller à l'entretien du seul feu fécond, garantie de la croissance et de la prospérité familiale, au sein du foyer, le plus important des autels domestiques et près duquel se trouve la place d'honneur de la maison : nnig el kanun : au dessus du foyer, réservé au père de famille ou aux hôtes de marque. Il convient de constater en outre une autre fonction du feu : la fonction éclairante. C'est la lumière : tafat, du feu (times) qui guide le héros la nuit. C'est le feu qui éclaire dans les lampes (lmesbah)... \]

This quotation means that it is up to women, in almost a priestly role, to ensure the maintenance of the only fertile fire that guarantees the growth and prosperity of the family, inside the home. It is the most important altar near which is the place of honor of the house: nnig el kanun, “over the fireplace,” reserved for the father or guests of honor. Another function of fire should also be noted: its illuminating function. It is the tafat, “light” of fire that guides the tale’s hero at night. It is the fire that lights lmesbah, “lamps.”

From a religious point of view, times, “fire” is synonymous with hell in Kabyle culture (see Dallet 1982: 520); as such, it is greatly feared, as conveyed in the Kabyle saying ay yemnae Rebbi si tmes, “May Allah save us from fire/hell.” This reveals that in Kabyle culture, fire is viewed from both a positive and a negative perspective. Although fire is very useful and symbolizes fertility, it can cause damage if it is not controlled.

In the *Dictionnaire de la Culture Berbère en Kabylie*, Lacoste-Dujardin (2005: 146) accounts for the cultural representation of times (fire) as follows:

\[ Il [le feu] représente la culture, la prospérité civilisée, sur laquelle veillent les femmes de la maisonnée. L'attention qui est portée au feu est d'autant plus grande et nécessaire que ses soins sont indispensables à ne pas laisser abandonné à son contraire : le feu sauvage, stérile, qui brule en ne laissant que des cendres, sans servir à la transformation en produits de consommation. \]

The above quotation says that fire represents culture, the civilized prosperity that the women of the household look after. The attention paid to fire is both great and necessary. So, it is essential to look after fire. It should not be abandoned, as it can burn everything around and thus become wild, useless and sterile.

This indicates the Kabyles’ awareness of the danger of uncontrolled fire. It should be observed that Kabylia’s forests and olive and fig trees have been subject during several summer periods to destructive fire, since at least the time of French colonization. This has led to the destruction of properties and people’s death. Such an important fact combined with the Kabyle cultural representation
of fire influences Kabyle-speaking people and most likely leads to the frequent instantiation of fire in metaphorical linguistic expressions of anger.

In conclusion, the characteristics of American and Kabyle societies mentioned above likely influence the use by speakers of the container concept to refer to anger metaphorically, as shown in my Kabyle corpus and Kövecses et al.’s (2015) American English corpus. Moreover, Kabyle speakers’ frequent use of the fire concept is influenced by the cultural representations of fire in Kabyle society. This difference can be explained in terms of the Pressure of Coherence Theory (Kövecses 2009: 11), which outlines how context molds metaphoric discourse:

Since the physical setting is part of the communicative situation, it may play a role in selecting particular metaphorical source domains. That is in a given type of communicative situation, people’s selection of metaphors may be influenced by the pressure of coherence principle.

In the present case, life stress characterizing present-day American and Kabyle societies can be seen as a contextual factor leading to a rise in blood pressure, which in turn probably leads to the selection of container-related metaphors, as revealed in the American English corpus (see Kövecses et al. 2015) and the Kabyle data. Similarly, the cultural representation of fire in Kabyle society most likely led to the selection of fire-related metaphors over other metaphors by the authors of the metaphorical expressions of anger making up the Kabyle corpus. Therefore, the saliency of the source domain concepts container in American English and fire in Kabyle are likely to be due, at least in part, to the specific cultural contexts in which they are used and this has led to differences in the frequency of use of anger metaphors in the American and Kabyle languages.

The classification of metaphors in Kabyle (see Appendix 1) involved some double categorizations. For instance, the metaphorical expression Deg ulawen n lyaci, times, tin ur nxeṭṭi, “In the people’s hearts, there’s fire that doesn’t go out” has been classified as representing both container and fire metaphors because of the presence of the two source domain concepts in the conceptualization of anger. This underlines the fact that clear-cut taxonomies with mutually exclusive categories are not realistic.

Another interesting result is that in both American English and Kabyle, the concept of anger is characterized by both the container and possessed object metaphors as the most frequently used ones. What this reveals is that the two cultures have much in common in the conceptualization of this emotion, even though they show some culture-specific differences. This fact supports Kövecses’s (2005) contention that such metaphors based on universal physiological knowledge are near-universal at a generic level, but vary at a specific level.
5.2 Characterization of the cultural model of anger

As was previously observed, Lakoff and Kövecses (1987) describe the cultural model of anger as having five stages: (1) offending event causing anger, (2) existence of anger, (3) attempt at controlling it, (4) losing control over it, and (5) act of retribution. They moreover describe it as being characterized by two major aspects: intensity and control. The former is said to characterize the second stage while the latter characterizes the third and fourth stages. The two aspects are in some way related, since the intensity of the emotion implies the need to control it.

The results of the analysis of the Kabyle corpus and the results reached by Kövecses et al. (2015) show that, in both American English and Kabyle, intensity and control characterize the scenario of anger. However, some cross-cultural differences are noticeable. In American English, intensity is found to relate mainly to the container metaphor while control characterizes the opponent and container metaphors. In Kabyle, intensity relates to both the fire and container metaphors, while control only characterizes the container metaphor. 6

Even though some cross-cultural differences were noted, the results reached in this study relating to the three most frequently used anger metaphors in Kabyle, namely fire, container, and possessed object, lend some weight to the claim by Kövecses et al. (2015) that the container is near-universal and that both intensity and control are dominating aspects of the concept of anger.

6. Conclusion

The present paper is a modest contribution to the research on the concept of anger in cognition, language, and culture across two languages and cultures. It aimed at contrasting anger metaphors in American English and Kabyle, focusing on two major issues: the most salient anger metaphors and the cultural model of anger. Drawing on the results reached by Kövecses et al. (2015) with regard to American English and on those found for Kabyle, the findings showed that anger metaphors are extensively used by both American and Kabyle speakers but with unequal frequency rates. The three most frequently used conceptual metaphors in American English were container (aggregate value = 45.92%), possessed object (aggregate value = 32.21%), and opponent (aggregate value = 31.90%), whereas in Kabyle they were fire (aggregate value = 93.08%), container (aggregate

6. It is worth noting that although control was not found to characterize the fire metaphor in the Kabyle corpus, the need to control fire is expressed in Kabyle (see Lacoste-Dujardin, 2005: 146).
value = 75.83%), and possessed object (aggregate value = 35.63%). This repre-
sents further evidence in favor of the claim of near-universality of the container
cognitive metaphor. However, cross-cultural differences were also observed; the container metaphorical source domain was most used by American English
speakers, while fire represented the most frequently used metaphorical source
domain by Kabyle speakers. This result was held to be explainable, at least in part,
with reference to sociocultural specificities characterizing America and Kabylia.

The findings also showed that the metaphorical linguistic expressions of anger
in the corpora are not haphazard, but are systematically structured according to a
conceptual model, in line with Lakoff and Kövecses’s (1987: 221) claim that “anger
is not just an amorphous feeling, but rather that it has an elaborate cognitive struc-
ture.” In addition, the findings I reached through the examination of the intensity
and control aspects of the anger scenario support Lakoff and Kövecses’ prototype
model of anger (1987). My findings also indicated cross-cultural specificity; in
American English, intensity relates mainly to the container metaphor, while control characterizes the opponent and container metaphors. In Kabyle, intensity relates to both the fire and container metaphors, while control characterizes only the container metaphor.

It has to be admitted that this small-scale investigation had several limitations.
The results reached in Kabyle cannot reliably be generalized beyond the corpus,
comprising just 143 instances of linguistic expressions of anger metaphors, col-
lected using a limited list of search terms. This may have reduced the number
of metaphorical expressions of anger potentially in the corpus. Had other search
terms been included, a larger corpus with different characteristics might well have
been constructed. Nonetheless, despite the small-scale, limited nature of the study,
I hope to have made a useful and suggestive contribution to research on metaphor
in language, cognition, and culture and to arouse interest in conducting a larger
study in the future.

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References


Appendix 1. Sample of Kabyle anger metaphorical expressions

N.B. The metaphors are classified under the source domain concept they involve. Metaphors (24), (25), (26), (74), (77) and (94) are doubly-classified metaphors.

The container metaphor

(1)  ... d wurfan yeţeyzagen deg wul n unazuţ.
and the-angers that-are-boiling in the-heart of the-artist
“... and angers that boil in the heart of the artist.”

(2)  ... ul yegureε-d urfan-is.
heart he-belched-PART angers-his
“... the heart belched its anger.”

(3)  D nehta yedfe wurrif...
part sigh he-follows the-anger
“It is the sigh that anger follows...”

(4)  ... ad surgen urrif nsen.
will pour-out-they anger of-them
“...they will pour out their anger.”

(5)  ... Smaren reffu nsen.
poured-out-they anger of-them
“...they poured out their anger.”
(6) Anidat lweed n yimdebbren a sen izegden lyid. where-it the-promise of rulers will them increase-them anger “Where is the rulers' promise that will increase anger?”

(7) Urrif n yimezday n temdint n Tizi-wezzu d win Anger of the-inhabitants of town-fem of Tizi-Ouzou part the-one yennernan mačči d kra deg wussan agi. that-rises not part little in days these “The anger of the inhabitants of Tizi-Ouzou town rises excessively these days.”

(8) Yeččur wul, yeqber yeb [9] yet eq. he-is-filled-up the-heart it-is-compressed he-wants will he-explode “The heart is filled up; it is compressed and wants to explode.”

(11) Weeren zyada n wurfan. are-hard-they increase of the-angers “Increasing angers is hard.”

(12) ulawen yeččuren d urrif. hearts that-are-filled PART anger “Hearts that are filled up with anger.”

(13) Tanekra n tmëtšt andi d tessufey ayen yellan deg wul-is. rebellion of woman where that PART she-released what there-was in heart her “The woman's rebellion where she released all that is in her heart.”

(14) Ul yellan yeččur d urrif d lhif [15] yeṭterdeq. heart that-was he-was-filled PART anger and misery he-exploded “The heart that was filled up with anger and misery exploded.”

(16) ad yini tiden yeṭkaftuten deg ul-is. will he-tell FEM those that-are-effervescing in heart his “He will tell about what is effervescing in his heart.”

(17) udem-is yeqlelles. face his he-was-blue “His face was blue.”

(18) Dda Weeli yeqber. uncle Waali he-is-compressed “Uncle Waali is compressed.”

(19) Dda Weeli izad wayen izaden degs deg zaaf. uncle Waali increased what increased in-him in anger “Anger increased excessively inside uncle Waali.”

(20) Allay nsen d wul nsen yeṭfuru. brain of-them and the-heart of-them steam “Their brain and heart steam.”

(21) Ul-ik ad teemṛen wurfan. heart-your will fill-they the-angers “Angers will fill your heart.”

(22) I y-yenna yiwen ilemzi urrif deg ul-is. to us he-said one youth anger in heart his “This is what a youth said to us with anger in his heart.”
(23) *imdanen sufuyen-d  urfan nsen s tawil n usunded.*
people release-they-PART angers of-them by means of strike
“People release their angers by means of strike.”

(24) *Deg ulawen n lyaci, times, tin ur nxéṭṭi.*
in hearts of people fire-FEM the-one-FEM not go-out
“In the hearts of people, there is fire that does not go out.”

(25) *Amedyaz Ireq s ucayud n lhejna n tmes i* poet burns with the-heat of flame-FEM of fire-FEM that
d-yeṭenkaren deg yiman n yiman-is
PART-it-is-growing in the-self of self-him
“The fire growing inside the poet burns him.”

(26) *Times i lehben deg ul.*
fire-FEM that blazes in the-heart
“Fire that blazes in the heart.”

The possessed object metaphor

(27) *Ul yeguree-d  urfan-is.*
heart he-belched-PART angers-his
“The heart belched its angers.”

(28) *Imezdaj a byan ad sbegnen lyid nsen.*
inhabitants these wanted-they will show-they anger of-them
“These inhabitants wanted to show their anger.”

(29) *Lyid n Imceddalen…*
anger of the-Imceddalen
“The anger of the Imceddalen…”

(30) *Urrif n yimezday n temdint n Tizi-wezzu.*
anger of the-inhabitants of town-FEM of Tizi-Ouzou
“The anger of the inhabitants of Tizi-Ouzou town.”

(31) *Imetjaren beggnen-d lyid nsen.*
merchants showed-they-PART anger of-them
“Merchants showed their anger.”

(32) *Reffu n yimdanen ur d-tṣah  ara tnezduyt.*
anger of the-people not PART-got not housing-FEM
“The anger of the people who did not get a roof over their heads.”

(33) *Ad beggnen lyid nsen segmi ur ten d-tṣah ara*
will show-they anger of-them since not them PART-got not
tnezduyt.
housing-FEM
“They will show their anger because they did not get a roof over their heads.”

(34) *Rfan yelmezeyen n ein Turk u sbegnen-d lyid nsen.*
got-angry-they-the-youth of Ein turk and showed-they-PART anger of-them
“The youth of Ein Turk got angry and showed their anger.”

(35) *Cemin difir bu urfan.*
road of-rail POSS the-angers
“The angers of the rail-road.”
...ad beggnen lyid nsen zdat n lixas n wa tas n yihricen n u neonmu.
will show-they anger of-them in-front of lack of many of domains of development
“...they will show their anger about the gaps in the field of development.”

...ad surgen urrif nsen iwumi ur ufin ara tifrat.
will pour-out-the anger of-them for-what not found-they not solution-Fem
“...they will pour out their anger for which they did not find a solution.”

...ad surgen urrif nsen iwumi ur ufin ara tifrat.
will pour-out-the anger of-them for-what not found-they not solution-Fem
“...they will pour out their anger for which they did not find a solution.”

Inelmaden n tesdawit Mulud Meemri ffin-d s
...ad surgen urrif nsen iwumi ur ufin ara tifrat.
will pour-out-the anger of-them for-what not found-they not solution-Fem
“...they will pour out their anger for which they did not find a solution.”

Inelmaden n tesdawit Mulud Meemri ffin-d s
...ad surgen urrif nsen iwumi ur ufin ara tifrat.
will pour-out-the anger of-them for-what not found-they not solution-Fem
“...they will pour out their anger for which they did not find a solution.”

“Many of the inhabitants of the town that we met showed to us their anger about this situation.”

The anger of the inhabitants of Bubhir village…

“Many of the inhabitants of the town that we met showed to us their anger about this situation.”

“The anger of the inhabitants of Bubhir village…”

“The workers of the town-hall of Bouira agreed to meet in front of the prefecture’s building to show their anger.”

“Last Thursday, university students went out to the streets to show their anger about the situation they are living in.”
(46) **Imezday n taddert At-Maamar d wid id-ibegnen**
inhabitants of village-FEM At-Maamar PART those-who PART-showed-they
reffe nsen mgal n yir taswiet deg ťtidiren.
Anger of-them because of bad moment-FEM in-which are-living-they
“The inhabitants of At-Maamar village showed their anger because of the bad conditions they
are living in.”

(47) **Yir taswiet a d tin yeggān imezday ad**
bad situation-FEM this PART the-one-FEM made inhabitants will
beggen lyid nsen, imi Tizi-Ntlata tezga teyreq deg show-they anger of-them since Tizi-Ntlata she-remains drowned in
walud di cctewa.
the-mud in winter
“This is the bad situation that led people to show their anger because Tizi-Ntlata is always
drowned in the mud in winter.”

(48) **Imezday n Uḥriq beggen-d lyid nsen zdat**
inhabitants of Uhriq showed-they-PART anger of-them in-front
mAHYAF i ťtidiren taggara agi.
injustice that are-living-they end-FEM this
“The inhabitants of Uhriq showed their anger because of the injustice they have been facing
recently.”

(49) **Qqaren beli ad uyalen ad sbeggen n lyid nsen ma ur**
say-they that will come-back-they will show-they anger of-them if not
d-telli tifrat i uybel agi.
PART-there-is solution-FEM to problem this
“They say that they will come back and show their anger in case this problem is not solved.”

(50) **Reffe nsen yemderkal yef ustehzi nsen.**
anger of-them is-put on carelessness of-them
“Their anger faces their carelessness:”

(51) **Ilaq tayawsa yef acu ara d-yer urfan-is.**
must-be something on what that-will PART-he-put angers-his
“There must be something on which he will put his angers.”

(52) **Ulac wayed, am netta, i d-yecnan asirem nsen**
there-is-no other like him that Part-he-sang hope of-them
akd urfan nsen mebla akukru.
and angers of-them without fear
“Nobody else sang their hope and angers as he did.”

(53) **Imawlan n yinelmaden ur ffiren ara lyid nsen.**
parents of learners not hide-they not anger of-them
“Learners’ parents did not hide their anger.”

(54) **Meyyatin n yilmezeyen ur nxeddem ara i d-yemyagaren**
hundreds of youths not working not that PART-met-they
zdat n uxxam n twilayt i wakken ad beggen lyid nsen.
in-front of house of town that so will show-they anger of-them
“Hundreds of jobless youths met in front of the prefecture’s offices to show their anger.”
(55) رثن نسني يطتيميت زدات ينخيام
put-they anger of-them on sitting-Fem in-front of house
أ لماما تفظت ئالت.
this until she-solve problem-FEM
"Angry, they occupy the front of this house until there is a solution."

(56) ون أككن أرد نوسي أرد دتينليت تامازوات،
the-one that not PART-came not in meeting first-FEM
هبيغهن دليد-يس.
he-showed-PART anger-his
"The one who did not come to the first meeting showed his anger."

(57) رثن ينييدين ينال أككن ينلم خمال أرل ماقول.
anger of youths went beyond to reason
"Youths' anger went beyond reason."

(58) نسل دع أميسن رثن نوعد دع أبيردان.
we-hear in news anger of the-people in streets
"In the news, we hear about people's anger in the streets."

(59) تسوين تيميتي عرفان-يس.
she-screamed life-FEM angers-her
"Life screamed its angers."

(60) إمندان سعفان-دس عرفان نسن سوايل نعسوند.
people release-they-PART angers of-them by means of strike
"People release their angers by means of strike."

(61) لمزد ين طادارت أ دسبغهن ليد نسن ينفليف
inhabitants of village-FEM this will show-they anger of-them on misery
إ شديدن.
that are-living-they
"The inhabitants of this village will show their anger on the misery they live."

The fire metaphor

(62) رأي يفباين وا رين نيرمن ذيزيت ين قر.
decision that-is-like this PART the-one that-will he-add oil-FEM to
حريت.
"Such a decision will add oil to fire."

(63) تامنتوت تيتشا أتيم.
woman she-ate fire-FEM
"The woman ate fire."

(64) ينتككار رجئيح نتنس دنيسارة-س.
he-grows the-flame of fire-FEM in body-her
"Fire's flame grows in her body."

(65) أمين د ينني ووال ينف تيرجت ينسيديجن.
how that-will Part-he-tell the-word about ember-Fem that-is-burning
ديسارة؟
in body
"How can words tell about the ember that is burning the body?"
(66) *Urfan seknafen deg yixef.*
angers burn-they in the-head
“Angers burn the head.”

(67) *Times, yelheb ujaji-is akken ad yesseknef s tirgin n fire-FEM he-blazes flame-her so-that will he-grill with embers-FEM of lyid* (68) *ulawen yezzan.*
anger hearts roasted
“The fire blazes to make anger’s embers grill the roasted hearts.”

(69) *Wid izareen lbat idelli asa yemyi*
those who-planted injustice yesterday today he-germinates
(70) *yurew-d times, (71) times a ten tsery.*
he-gives-birth-PART fire-FEM fire will them she-burn
“Those who planted injustice yesterday, today, it germinates and gives birth to fire that will burn them.”

(72) *Ul yejraḥ ma d tasa yer daxel i tezza.*
heart he-is-injured while PART the-liver-FEM towards inside that she-roasts
“The heart is injured while the liver roasts.”

(73) *Amusnaw mni yecča times.*
scientist that he-ate fire-FEM
“That scientist ate fire.”

(74) *Amedyaz freq s ucayud n lhejna n tmes i poet burns with the-heat of flame-FEM of fire-FEM that d-yėṭenkaren deg yiman n yiman-is.*
PART-it-is-growing in the-self of self-his
“The fire growing inside the poet burns him.”

(75) *D ayen i yernan zzit i tmes!*
PART what that added oil-FEM to fire-FEM
“This is what added oil to fire!”

(76) *… ulama timena trenuzzit yer times.*
although telling-FEM she-adds oil-FEM to fire-FEM “…although telling about it adds oil to fire.”

(77) *Deg ulawen n alyaci, times, tin ur nxeṭṭi.*
in hearts of people fire-FEM the-one-FEM not go out
“In the hearts of people, there is fire that does not go out.”

(78) *S tmes-iw ryįį…*
with fire-FEM-my burnt-I
“My fire burnt me.”

(79) *Tujal asen d times yesseryayen tasa deg she-became to-them PART fire-FEM that-is-burning the-liver in yiman nsen.*
self of-them
“To them, it became the fire that burns the liver inside themselves.”

(80) *Bwan wulawen, (81) kenfent taswin, di Bab-El-Ouad*  
baked the-hearts burnt-they-FEM livers-FEM in Bab-El-Ouad
“The hearts baked, the livers burnt, conflict inflamed in Bab El Oued…”

“Fire’s flames, baked hearts, and ironed hearts…”

“Fire’s flames consumed people …there, conflict inflamed and took what we, Algerians, earned; so, they added oil to fire.”

“Sometimes, the fire that burnt livers effervesces.”

“The anger shown by the Tunisian people rose from the ashes and spread to reach Egypt.”

“The authority abuse of the French incursion is like oil spilling on fire.”

“The other girl screamed with all her might the anger that roasted her heart.”

“When the liver burns, the heart is careless.”
anger metaphors in American English and Kabyle

(94) *Times ilehben* deg *ul, * (95) *tennerna* deg *akken* 
fire-FEM that-blazes in the-heart she-grows in such-a-way-that
gdent nhati. 

“Fire that blazes in the heart grows in such a way that sighs are heard.”

(96) *Yewwit d abehri yer tirget* yeskenfen *ulawen,* 
he-took-it PART wind to the-ember-FEM that-burnt hearts 
amer *xas* (97) *tensa* deg *yixfawen* (98)ad *tleqe* 
perhaps even-if she-goes-out in the-heads will she-rise 
“He took it like the wind to the ember that burnt hearts, perhaps, even if fire goes out in people’s heads, it will rise.”

(99) *Yerya s *tmes n ibatel ... ijujah n taswin yezzan... 
he-was-burnt with fire-FEM of injustice ... the-flames of livers-FEM roasted...

“The fire of injustice burnt him...the flames of roasted livers.”

(100) *Yeschetrif, ul yekwa tazmart tekfa.* 
he-moans the-heart he-is-ironed strength-FEM she-is-gone 
“He moans, his heart is ironed and his strength is gone.”

(101) *Maca, tanabat-is terna zzit i tmes.* 
but answer-his she-added oil-FEM to fire-FEM 
“But his answer added oil to fire.”

(102) *Ulac tifrat, ma d tin irenmun zzit i* 
There-is-no concord while PART the-one-FEM that-adds oil-FEM to 
tmes deg *yijufar-is kan ara tettef.* 

“There is no concord, the one that adds oil to fire will have her robe-tails burnt.”

(103) *Amebyun n Tizi-Hibel Yeccoli-d kwan wulawen.* 
the-miserable-man of Tizi-Hibel he-left-PART ironed the-hearts 
“The miserable man of Tizi-Hibel left our hearts burnt.”

(104) *Ulawen n ibatel kwan.* 
hearts of injustice ironed 
“The hearts facing injustice are burnt.”

(105) *Tamuaqranit n yemsulta akd lehkem di ilgerra n* 
abuse-FEM of governors and authority in trail of 
tmes yu yen di tfsut taberkant. 
the-fire-FEM that-spreads in spring-FEM black-FEM 

“Governors and authority’s abuse caused the fire that spread in the ‘black spring’.”

The object to be shown metaphor

(106) *Imezday a byan ad sbegnen lyid nsen.* 
inhabitants these wanted-they will show-they anger of-them 
“These inhabitants wanted to show their anger.”

(107) *Imetjaren begguen-d lyid nsen.* 
merchants showed-they-PART anger of-them 
“Merchants showed their anger.”
will show—they anger of-them since not them PART—got not housing-FEM
“They will show their anger because they did not get a roof over their heads”

“got-angry—they the-youth of Ein Turk and showed—they-PART anger of-them
“The youth of Ein Turk got angry and showed their anger.”

teachers of Tamazight of Bouira showed—they-PART anger of-them
“The Tamazight teachers of Bouira showed their anger.”

“will show—they anger of-them in-front of the-lack of many of
domains of development
“… they will show their anger about the gaps in the field of development.”

“The students of Mouloud Mammeri University marched in the streets to show their anger
about their problems.”

“Many of the inhabitants of the town that we met showed to us their anger about this situation.”

“The inhabitants of Wizgan showed their anger on 17 January.”

“The workers of the town-hall of Bouira agreed to meet in front of the prefecture’s building to
show their anger.”

“Last Thursday, university students went out to the streets to show their anger about the
situation they are living in.”
(117) **Imezday n taddert At-Maamar d wid i d-ibeggen**
habitants of village-Fem At-Maamar PART those who PART-showed-they
reffer nsen mgal n yir taswiet deg
anger of-them because of bad moment-FEM in-which
"The inhabitants of At Maamar village showed their anger because of the bad conditions they
are living in."

(118) **Yir taswiet a d tin yeğgan imezday ad**
bad situation-FEM this PART the-one-FEM made inhabitants will
beggenen lyid nsen, ini Tizi-Ntlata teza teyreq
show-they anger of-them since Tizi-Ntlata remains she-drowns
deg waluḍ di ccetwa.
in mud in winter
"This is the bad situation that led people to show their anger because Tizi Ntlata is always
drowned in the mud in winter."

(119) **Imezday n Uhriq beggen-d lyid nsen zdat**
inhabitants of Uhriq showed-they-PART anger of-them in-front
mahyaf i tṭidiren taggara agi.
injustice that are-living-they end-FEM this
"The inhabitants of Uhriq showed their anger because of the injustice they have been facing
recently."

(120) **Qqaren belli ad uyalen ad sbeggenen lyid nsen ma**
say-they that will come-back-they will show-they anger of-them if
ur d-telli tfrat i uybel agi.
not PART-there-is solution-FEM to problem this
"They say that they will come back and show their anger in case this problem is not solved."

(121) ⋯ am akken id-ibeggen lyid meqqren yer imawlan n warrac
like also PART-he-showed anger great at parents of boys
⋯he also showed great anger at the boys' parents."

(122) **Lyid d-yessebgen wegduḍ n Tunes...**
anger PART-he-showed the-people of Tunisia
"The anger shown by the Tunisian people..."

(123) **Imawlan n yinebmaden ur ffiren ara lyid nsen.**
parents of learners not hide not anger of-them
"Learners' parents did not hide their anger."

(124) **Meyyatin n yiḥmezen ur nxeddem ara i d-yemyagaren**
hundreds of youths not working not that PART-met-they
zdat n uxxam n twiyat i wakken ad beggenen lyid nsen.
in-front of house of town-FEM that so will show anger of-them
"Hundreds of jobless youths met in front of the prefecture's offices to show their anger."

(125) **Win akken ur d-nusi ara di temlilit tamezwarut, ibeggen-d**
the-one that not PART-came not in meeting first-FEM showed-PART
lyid-is.
anger-his
"The one who did not come to the first meeting showed his anger."
(126) **Imezday n taddart a ad sbeqnen lyid nsen yef lhif**

inhabitants of village this will show—they anger of-them on misery
i ṭṭidiren.
that are-living-they
“The inhabitants of this village will show their anger on the misery they live.”

The **burden metaphor**

(127) **yas akken d azyal, maca wigi akka yerkeb lyid**
even if PART heat-wave but these that he-rides anger
**gguman ad brun i ṭray nsen.**
refuse—they will drop to opinion of-them
“Even if it’s the heat wave, the angry rebels still hold to their opinion.”

(128) **yesnfsusuy yef ul, yef umdan... urfan n tmeddurt.**
it-unburdens on heart on person angers of life-FEM
“It eases the heart of the burden of anger.”

(129) **Awal yenna, assa yekkes-ay urfan.**
the-word he-said today he-removes-us angers
“The words he said today remove angers from us.”

The **plant metaphor**

(130) **Wid izareen lbatel idelli assa yemyi**
those who-planted injustice yesterday today he-germinates
**yurew-d times, times a ten ṭsery.**
he-gives-birth-PART fire-FEM fire-FEM will them she-burn
“They planted injustice yesterday, today, it germinates and gives birth to fire that will burn them.”

(131) **yefet wurrif deg ulawen nsen.**
he-takes-root the-anger in hearts of-them
“Anger takes root in their heart.”

The **problem to be solved metaphor**

(132) **... ad surgen urrif nsen iwumi ur ufin ara tifrat.**
will pour-out—they anger of-them to—which not found—they not solution-FEM
“They will pour out their anger to which they did not find a solution.”

The **destructive force metaphor**

(133) **Mmuten warrac, [...], ṭwacegben yilmezen,**
died-they the-boys were-made-crippled the-youth
**zleza n wurrif tewwi kulci di later-is.**
quake-FEM of the-anger she-took everything in way-her
“Boys died, young people were made crippled, and the quake of anger took everything on its way.”

The **natural force metaphor**

(134) **Urrif yeglad s lhmla n yimenkiren.**
anger caused with flood-FEM of rebels
“Anger caused the flood of the rebels.”
(135) Igenni yesburren asigna n lyid…
   sky that-is-covered cloud of anger
   “The sky that is covered with the cloud of anger…”

The person metaphor

(136) Urrif yetnawal urfan.
   anger he-prepares angers
   “Anger prepares angers.”

(137) D urrif i ten i d-yesnetgen.
   PART anger that them that PART-he-made-talk
   “It is anger that made them talk.”

(138) Mi ad temmekti ayen i s-d-uggwen wurfan.
   when will she-remembers what that her-PART-bought-they the-angers
   “When she will remember what angers bought to her.”

The existence is presence metaphor

(139) Tecfid amek si lxel ɛa tenbreń teebbut-im igan
   you-remember how from fear she-hardened stomach-FEM-your made
   lmendad i wurrif.
   place to the-anger
   “You remember when because of fear your stomach hardened and made a place to anger.”

(140) reffu akd ccek k zedyen ulawen n yimezday n
   anger and doubt inhabit-they hearts of the-inhabitants of
   tmurt n Tunes.
   country-FEM of Tunisia
   “Anger and doubt inhabit the hearts of the inhabitants of Tunisia.”

(141) Takerda tesekcem lyid deg yixfawen n lyaci.
   robbing-FEM she-made-enter anger in the-heads of people
   “Robbing made anger enter the heads of people.”

The increase in intensity is growth metaphor

(142) Meena attan yuden… irebb as lyid.
   but illness he-suffered made-grow him anger
   “But the illness he suffered from made his anger grow.”

(143) Tagrawla tefegmed urfan seg inuyiniyen imectah.
   revolution she-makes-grow angers from troubles small
   “Revolution makes angers grow out of small troubles.”

Appendix 2

This appendix includes two tables. Table 1 is extracted from Kövecses et al. (2015); it summarizes the main findings of the salience-based analysis of American English metaphorical expressions of anger. Table 2 shows the results of the salience-based analysis of Kabyle metaphorical expressions.
Table 1. Summary of Anger in American English (Kövecses et al. 2015: 361–362)

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<th>Metaphorical source domain</th>
<th>Token of linguistic expressions</th>
<th>% of all tokens</th>
<th>Type of linguistic expression</th>
<th>% of all types (conceptual metaphor)</th>
<th>Type of metaphorical mappings</th>
<th>% of all types (metaphorical mappings)</th>
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Table 2. Anger in Kabyle

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