**Theorizing and Measuring Emotions in Conflict.**

**The Case of the 2011 Palestinian Statehood Bid**

Whilst recent research has demonstrated the key role played by emotion in conflicts, the interplay between the individual and collective dimensions of this variable has not yet been fully conceptualized and satisfyingly measured. Focusing on the 2011 Palestinian statehood bid at the UN and the UNESCO, the present article highlights the circular character of group-based emotional dynamics, and stresses the importance of “emotional worldviews” and “emotional configurations”. We subsequently provide an innovative, robust, and repeatable quantitative method for the direct measuring of these two components. This threefold contribution – theoretical, methodological, empirical – completes recent models (chiefly the appraisal-based framework) and unfolds new research avenues for the study of the role of individual and collective emotions in conflicts.

Emotion is central to all major conflicts. However, this presence has long been overlooked and hence under-theorised; emotion had, in literature, an implicit status. Several scholars have lately recognised this omission and stressed the role of emotion in conflicts: from Robert Jervis’ acknowledgement that his neglect of emotion is a “major blunder” (Balzacq and Jervis 2004: 565) to more recent studies from Marcus, McDermott or Mercer (for example Marcus 2000; McDermott 2004; Mercer 2005), this effort has taken various routes but nonetheless produced a rather coherent conception of the emotional dimension of international politics, although one cannot yet speak of a perfectly unified theory of emotion in conflict. At the cross of Psychology and Political Science, scholars like Bar-Tal (e.g. 2001) or Halperin (e.g. 2008) have had a key role in showing the strengths and pertinence of this research agenda. Whilst this research has solidified our understanding of why conflicts emerge and persist, it nonetheless presents two insufficiencies.

First, being “highly theory-driven” (Coan and Allen 2007: 6) it still lacks methodological diversity. IR scholars are reluctant to implement quantitative methods, whilst political psychologists heavily depend on indirect measurements of emotion like questionnaires. To be sure, “empirical research on the role of specific group-based emotions in the context of conflict situations is still in its seminal stages” (Halperin 2008: 714); new transposable methodological guidelines for the direct empirical study of emotion in precise political contexts are much needed in order to test existing results and provide new insights. The time is ripe to enrich the methodological debate. Second, the idea that emotion has a collective dimension has become a key point of contemporary research but has been variously interpreted and therefore remains equivocal. The notion of “collective emotion” has been conceptualised in several ways that are hard to articulate, despite – or perhaps because – of its new omnipresence in recent literature.

The present article addresses this twofold imperfection. On the one hand, our theoretical effort insists on the importance to accurately distinguish and articulate the necessarily individual experience of emotion and the societal determinants of this experience. By putting forward the concepts of “Emotional worldview” and “Emotional configuration”, our model clarifies the interplay between these two levels, hence strengthening the most recent unifying model, the “appraisal-based framework” (Halperin, Sharvit and Gross 2011; Halperin and Gross 2010). Putting forward these two additions allows us to stress the circular character of emotional dynamics in groups, and thereby to provide an explanation for groups’ emotional homogeneousness in situations of conflict.

On the other hand, our method is based on a tailored use of the LIWC (Linguistic Inquiry and Word Count), a computer software for language analysis that was originally developed in psychotherapy for detecting emotions in patients’ reports, and which we import in conflict studies. This tool allows a direct study of emotional worldviews and emotional configurations. The aim is to present operational guidelines based on our theoretical advances that can easily be transposed to diverse cases and thereby unfold a rich programme for empirical research.

We illustrate our theoretical advances and demonstrate the pertinence of our methodological propositions by examining the 2011 Palestinian Statehood bid at the UN and UNESCO, a recent significant event of the Israeli-Palestinian conflict, chosen here as a “prototypical example of an intractable conflict” (Halperin 2008: 715). In line with numerous other scholars, we believe that emotion is a crucial factor in the non-settlement of this conflict.[[1]](#footnote-1) With our method, we measure and analyse the presence, magnitude, and in-group coherence of emotional worldviews and emotional configurations at this occasion among two kinds of political actors: policymakers and committed commentators on the Internet, hence documenting the social dynamics of emotion. To do so we analyse political speeches and blogs commenting the statehood bid. Our results confirm the importance of anger in the Israeli-Palestinian conflict, reveal the prominence of other emotions such as anxiety or resentment, and highlight the saliency of collective worldviews such as the Holocaust traumatic past. They also document the striking coherence of these features within each group.

By way of conclusion, we detail the empirical and theoretical agenda unfolded by our theoretical advances, method, and results.

1. **“Collective emotion”: The theoretical challenge**

**The (new) passion for emotion in IR and conflict studies**

Even though emotions such as resentment or disgust have consistently been evoked by classical figures of IR scholarship, the amplitude of their role, the exact route of their impact, the precise mechanisms of their influence have remained under-theorised until the 1970s. Emotion was not even put into a black box; considered to be an episodic individual factor, it was more simply not deemed to fall under the scope of International Relations (IR). As a matter of fact, emotion was simply “off the radar-screen of international relations theorists” (Crawford 2000: 122). In the 1970s, the importance of psychological determinants in international relations and conflicts started to be more fully acknowledged, but almost only in the narrow sense of its negative impact on decision-making. IR theorists have solely conceived emotion in Descartes’s lineage as something that distracts rational judgment (e.g. Jervis 1976). According to this view, emotion short-circuits rational decision-making because it proceeds through a supposedly distinct process, as an external factor affecting the usual conduct of reason (Mercer 2005: 92).

Findings in Psychology have demonstrated, however, that the rational/irrational (emotional) dichotomy is a nonsensical one; the negative role attributed to emotion appears to be an unsound prejudgment. Advances in neuropsychology and cognitive sciences in the 1990s (e.g. Damasio 1994) indeed made clear that rationality is never empty of emotional input, thereby completing a long-standing “undermining of the image of a unified and rational self” (Kahler 1998: 919). These studies showed that emotion cannot be considered simply as an affect that every now and then hampers otherwise rational judgment, but rather as a permanent state holding an enduring and systemic role in every cognitive process. Cognition needs emotion, which does necessarily play a negative role. The mechanistic logic of investigating a direct (and negative) impact of a particular emotion on a specific political decision makes less sense, or at least gets highly complicated to investigate.

Addressing this insufficiency, the study of emotions in the field of international conflicts re-developed on new bases thanks to scholars bridging Psychology and Political Science. At the 1996 ISA conference, Mercer made a programmatic presentation called “Approaching emotions in international politics”, in which he made clear that the role of emotion in IR was at the same time far from negligible and ill-theorised. Crawford later provided a detailed portray of the dynamics and many impacts of emotions in IR. Reflecting on this fresh, less simplistic understanding of emotion, she proclaimed: “the time is ripe for addressing emotion in world politics” (Crawford 2000: 130). The 2000s have consequently witnessed a vibrant discussion on the role of emotion in conflict, delivering increasingly sophisticated theoretical models and notable empirical insights. Within this research agenda, an insisting idea is to investigate emotion at a collective level, to locate its influence in societal processes rather than solely in individual decision-making dynamics; this crucial idea, however, has been variously interpreted and attempts to test it empirically do not yet rest on sufficiently diverse and direct methods.

**Holistic versus communicational conceptions of collective emotions**

Cutting-edge studies on the role of emotion in conflicts converge toward the belief that emotion has a collective dimension, whose role in intergroup conflicts cannot be neglected. Scholars such as McDermott, Bar-Tal, or Halperin have convincingly argued that emotions are not only experienced by individuals but might also appear at the group level. Beyond the consensual opinion that “emotion, while most often experienced at the individual level, is inherently social and relational” (Fattah and Fierke 2009: 70), however, any further agreement is hidden behind a conceptual diversity and fuzziness that prevents the scholar from clearly identifying what a “collective emotion” is. Terms as various as “affective identity” (Ross 2006), “attitude” (Scherer 2005), “collective emotion” (Bar-Tal, Halperin and De Rivera 2007), “collective emotional orientation” (Jarymowicz and Bar-Tal 2006), or “affective composition” (Kelly and Barsade 2001) are used to qualify the collective dimension of emotion. The very concept of “emotion” has lost specificity: as Scherer laments, “the number of scientific definitions proposed has grown to the point where counting seems hopeless” (Scherer 2005: 696). In this diversity we nonetheless identify two main conceptions of “collective emotion”.

First, some scholars adopt a holistic view, suggesting that the society itself might somehow be the subject of an emotion. A collective emotion has, in this view, an essential and tangible reality. Insisting on this perceptible collective reality, De Rivera defines an “emotional climate” as “an objective group phenomenon that can be palpably sensed – as when one enters a party or a city and feels an attitude of gaiety or depression, openness or fear” (De Rivera 1992: 197). Similarly, Ross argues that “affects” “cut across individual subjects and forge collective associations*”* (Ross 2006: 199). For these scholars, a collective emotion is something else than the simple addition of similar individual emotions: it is experienced in a real way *by the group*. Slightly different accounts suggest that groups are characterised not by their real experience of an emotion but by their *propensity* to trigger, among their members, particular emotions when a significant event occurs. Scherer suggests that members of a group possess an identical “affect disposition”, that is, a common propensity to “to react with certain types of emotions even upon slight provocation” (Scherer 2005: 705); sticking to this holistic perspective, Bar-Tal, Halperin and De Rivera define the similar concept of “collective emotional orientation” as “the tendency of a society to express a particular emotion” (Bar-Tal, Halperin and De Rivera 2007: 443).

A second viewpoint stresses that the collective aspect of emotion only relates to its more or less conscious communicative dimension, to the process of its dissemination within a group; in a society, it may happen that a number of people individually experience the same emotion and communicate it in the same way, thereby contributing to its “collectivisation”. As Fattah and Fierke (2009) explain, the experience of emotion is individual but is always expressed to others and hence tends to disseminate among group members. In this view, a “collective emotion” is not strictly speaking a reality but rather a heuristic concept used to account for the communication and dissemination of emotion. Whilst Kelly and Barsade (2001) highlight leaders’ roles in intersubjective emotional contagion through their tactical or unconscious display of specific emotional repertoires, Bleiker and Hutchison (2008) suggest that the external cues of emotion experienced at the individual level provoke the collectivisation of emotion within a group, which then impacts on political decisions.

Both lines of thought have their merit and problem. The second interpretation rightly locates the experience of emotion at the sole individual level and stresses the importance of the communicative aspect of emotion within a group, but it does not fully acknowledge the importance of truly collective components in the triggering of precise emotions among the members of specific societies. Conversely, the first interpretation operates too blurry a boundary between the two distinct spheres of individual emotions and societal dynamics, but by doing so rightly emphasises the connection between how individuals react emotionally to significant events and how the society to which they belong is organised by particular norms.

**Strengthening the appraisal-based framework: Circularity, emotional worldviews and emotional configurations**

Our theoretical model tries to combine the strengths of both approaches and simultaneously to avoid their respective weaknesses. In other words, we “attempt to understand how an individual micro-level instinct, an emotion, contributes to collective macro-level processes and outcomes” (Berezin 2002: 33), and the other way round. Important work has already been done in this perspective, which we seek to complete. “Aware of no comprehensive framework for understanding how emotions influence individual and collective beliefs, attitudes and behaviors regarding war and peace” (Halperin, Sharvit & Gross 2011: 87), Halperin, Sharvit and Gross recently put forward such an integrated model with the ambition to articulate the social and individual levels without focusing on one specific emotion. Their “appraisal-based framework” suggests that individuals within a given group may experience similar specific emotions when a political event occurs, if they appraise this event in the same way. Appraisal could indeed be common as it is determined by three group-based factors: “long-term emotional sentiments”, “non-affective factors”, and “framing”. However, they recognize that their model is in need of further sophistication, recommending that “further research […] must address the unique interaction between long-term and short-term emotions and their confluence on conflict related to political process” (Halperin, Sharvit & Gross 2011: 98).

Our aim is precisely to address this need by strengthening Halperin, Sharvit and Gross’ original framework with three key improvements. First, we highlight the existence of group-specific “emotional worldviews” and stress their crucial impact. Second, we hypothesize the presence of complex “emotional configurations” determined by the emotional worldviews. Third we theorize the circularity of group-based emotional dynamics. Thereby strengthened (see below Figure1), the appraisal-based framework becomes a comprehensive model of the interplay between the individual and collective levels, and between the short-term and long-term dimensions of emotion in conflict.

Figure1

The starting point to apprehend the model is the occurrence of a significant political event or the belief or recollection that an event has occurred. However, an event can be appraised in many ways and does not convey, in its own sake, a specific emotional charge. Group-based dynamics determine which emotion(s) are triggered.

We first suggest that the members of any given group are characterised by a common particular way of apprehending and understanding the social world through a particular overarching logic, which we call “emotional worldview”.[[2]](#footnote-2) An emotional worldview can be defined as an all-encompassing and coherent logic of understanding the social world that is based on the group’s collective memory, itself made of socially constructed axioms (statements that are taken for granted, that cannot be contested) and myths (real traumatic past events that are omnipresent and perpetually re-interpreted) that are re-produced in language. Worldviews are not especially targeted toward another group, but are constructed throughout the group’s history and therefore always contains intergroup components such as the group’s supposed hierarchical status or social role. We suggest that the axioms and myths of the worldview, through which members of a group interpret the social world, determine the cognitive appraisal of the event. First, they have an “emotional disposition”, that is, an intrinsic propensity to trigger specific emotions. Second, and – later in the cyclic process – they impact the cognitive appraisal because they shape framing and feed long-term sentiments. Individuals experience the specific emotion(s) subsumed by the emotional disposition of their group’s emotional worldview precisely because they are members of this society; so in any given society individuals are prone to experience the same emotion(s), with small variations due to personality traits. We argue that adding worldview to the original appraisal-based framework highlights the deep interconnections that bind together long-term sentiments, framing and (seemingly) non-affective factors. In their framework, Halperin, Sharvit and Gross define a long-term sentiment as a “temporally stable emotional disposition toward a person, group, or symbol”. However, the source of this enduring predisposition remained to be identified. Whilst “non-affective factors” could be this source, the concept remains fuzzy and more importantly Halperin, Sharvit and Gross do not map any interaction between the two elements. Bar-Tal’s et al. concept of “ethos of conflict”, understood as a “configuration of central, shared societal beliefs” (Bar-Tal et al. 2012: 41) is very close to what we describe here but our use of the term “emotional worldview” instead aims at connecting with the “worldview problem” in cognitive science, and in particular with the theoretical space unfolded by Lakoff (2002), who showed that individual cognition is dependent of group-specific frames (worldviews) which inherently contain an emotional dimension.[[3]](#footnote-3) In other words, we posit that in every group a specific worldview is shared that determines which long-term sentiments and framing will influence the cognitive appraisal of events. By emphasizing the importance of worldviews as prime determinants of emotions, we claim that seemingly “non-affective factors” such as ideologies (which are encompassed in worldviews) actually carry heavy emotional charges – hence the intrinsic “emotional” dimension of worldviews. This conception helps us to better understand why emotion is linked with group affiliation (in line with Mackie, Devos and Smith 2000).

Second, we suggest that events trigger not only one emotion but rather a complex set of specific emotions which are experienced with defined intensities; we call this the “emotional configuration”. We indeed believe that one has to consider the occurrence, at the individual level, of an emotional configuration rather than a single emotion felt in a binary way. An emotional worldview may for example push individuals to react to an event with high levels of sadness and resentment, or with low levels of rage and fear. Emotional configurations are dependent on the emotional worldview because some axioms and myths are prone to produce resentment (as it could be the case with nationalist ideologies that develop in formerly colonized countries), whilst others might tend to trigger anger (as it might happen with a worldview developed in a country whose power is constantly frustrated by the outgroup’s constraints).

Third, we stress the circular dynamics of emotions in conflict, highlighting how the collectivisation of emotions within a group influences how those who do not have a direct knowledge of the event appraise it and hence further communicate their emotions (not only through facial expressions and behaviours, but also as Lakoff showed through specific language uses). In this process, political leaders and traditional mass (social) media play a key role (Halperin, Sharvit and Gross 2011: 87). We identify four dynamics that make the collectivisation of emotions a cyclic process. First, the worldview and emotional configuration that characterize a group shape the way direct witnesses, leaders and mass (social) media propagate the event, thereby creating a particular framing. The shared character of the worldview and the ensuing homogeneity of emotional configuration ensure the coherence of this framing and its acceptance within group. Second, the dissemination of the “framed” event allows individuals without previous knowledge of the event to also appraise it. The emotional configuration that they will consequently experience and propagate is expected to be similar to that of leaders, direct witnesses and the media, both because they share a similar worldview and because they appraise the event according to their framing. Third, the dissemination of emotions within the group – this time not only by direct witnesses, leaders and media but also by the entire population – reinforces the worldview and its emotional disposition. Indeed the recurrence of collectively experienced emotions in response to framed events acts as a powerful mechanism in the confirmation of worldviews (confirming its myths and axioms) and enduring long-term sentiments toward the outgroup. Fourth, the collectivisation of emotions increases the likelihood of a new conflict-related event.

These four dynamics allow us to understand why the different groups involved in a conflict may have a different understanding of a same event and thereby a different collective emotional configuration, as each group is characterized by a specific worldview which is continually reinforced through the collectivisation of emotions. Moreover, these four dynamics are expected to increase the coherence of emotion configurations within a group, as the group-specific worldviews shape the appraisal of the event both directly, but also indirectly via the collectivisation of emotions, the reinforcement of long-term sentiments and the framing of the event during its mediatisation. In our opinion then, acknowledging the reality of “collective emotion” in conflict is to document the statistically attested presence in a society of a specific emotional worldview and the ensuing simultaneous experience, by individuals within a given society, of the same emotions when confronted to the same politically salient event.

Like the original appraisal-based framework it further strengthens, this model is not testable in its entirety with a single empirical study. Our empirical analysis of the Israeli-Palestinian conflict aims at illustrating two aspects that we have added to the appraisal-based framework: emotional worldviews and emotional configurations; by doing so and by focusing on political leaders and social media, it also offers a first look at the circular dynamics of emotions collectivisation.

1. **“Collective emotion”: The methodological challenge**

**Emotion in politics: Insufficiencies in method**

IR scholars willing to integrate emotion into the analysis of conflicts have not yet accompanied their assertions with methods for empirical testing. The situation is paradoxical: whilst all major IR contributors have, repeatedly and with good reason, lamented on the lack of clear methodological procedures to study emotion in politics, they have not provided clear-cut, feasible operational guidelines. The absence of precise methodological suggestions in McDermott’s chapter on emotion in her *Political Psychology in International Relations* (2004), or Ross’ confession that “methodological problems demand more attention that I am able to give them here” (Ross 2006: 212), are particularly telling. As Bleiker and Hutchison state (without providing a solution), “strangely there are still only very few systematic inquiries into emotions and even fewer related discussions on method” (Bleiker and Hutchison 2008: 115).

Conflict scholars with stronger ties with Psychology have been more willing to design and implement adequate methods. Psychology offers several methods and techniques for the study of emotion, whose respective pertinence depends on what “component” (Scherer 2005) is scrutinised. However, the implementation of many of these tools, most famously medico-technical devices such as EEGs and MRIs[[4]](#footnote-4) (responsible, it has to be noted, for most of the “‘emotional revolution’ in Psychology”, to use Crawford’s [2000: 119] words) is close to impossible in real political contexts and conflict settings, and can only be used in laboratory experiments.[[5]](#footnote-5) Computer-based facial expression capture and identification softwares developed in line with Ekman’s work (e.g. Ekman 1993) are interesting alternatives and provide noteworthy results but their use is highly technical and is limited to the analysis of high quality video images. Because of the difficulty to implement these techniques in real-life contexts of conflict, the majority of findings related to the role of emotion in such contexts have been provided by questionnaires and minimal-group experiments (e.g. Bizman and Hoffmann 1993; Halperin 2008; De Steno et al. 2004; Halperin, Russell, Dweck and Gross 2011). Although this latter effort has been pursued with rigor and did bring about the most robust insights available to date, it remains somehow artificial: data collected through minimal-group experiments cannot perfectly be generalized to real-life settings, and data obtained through questionnaires come from the individuals’ own accounts and not from a direct measurement of the actual experience of emotion that an actual event can trigger. Findings obtained through these methods would gain in being triangulated with data acquired from a direct measuring of emotion.

**Analysing language, directly measuring emotion: Using the LIWC**

Amongst the three ways of *directly* examining emotions identified by Ohman,[[6]](#footnote-6) “the uniquely human ability of language provides a means for people to make their feelings known to the outside world” (Ohman 2006: 34) and therefore becomes a suitable and privileged target for the scientific analysis of collective emotion. We follow Fattah and Fierke who showed that “emotion finds expression only in a language and a culture” (Fattah and Fierke 2009: 70) and Bleiker and Hutchison who argued that one of the most promising locations to examine emotions is in the way in which they are represented and communicated “symbolically” (Bleiker and Hutchison 2008: 128). In addition to this advantage in terms of practical feasibility, the study of emotional expressions in language has another advantage over the study of emotional expressions in behaviour.[[7]](#footnote-7) Verbal cues not only crystallise the presence of specific affects, but also simultaneously provide insight on the prescriptive beliefs, the evaluative judgments, and the worldviews of authors and the group they belong to (Lakoff 2002). Hence, a language-based emotion analysis is apt at combining two dimensions, *what is said* and *how it is said*, without neglecting the former, as do behaviour- or physiology-based studies. It is therefore perfectly suited to a study of interdependent emotional worldviews and emotional configurations.

To implement a language-based emotion analysis, we selected what is arguably the most robust software to detect emotion in discourses, the Linguistic Inquiry and Word Count (LIWC), and adapted it to the specificities of our theoretical propositions. As regards its theoretical principles, the LIWC is based on the idea that language use reflects the psychological state of the writer/speaker, in other words that “the words we use in daily life reflect what we are paying attention to, what we are thinking about, what we are trying to avoid, how we are feeling, and how we are organizing and analyzing our worlds” (Tausczik and Pennebaker 2010: 30). As regards its functioning logic, the LIWC “links daily word use to broader social and psychological processes” (Tausczik and Pennebaker 2010: 38), calculating the frequency, in any given text, of precise words and kinds of words that research in Psychology has shown to be indicators of specific emotions; the higher the frequency of certain words and kinds of words, the most salient the associated emotion. A particularly high/low use of personal pronouns, of certain adjectives and nouns, or of words that have four syllables or more, are the kinds of cues that the LIWC calculates when trying to assess and map the emotional tone of a text (including political speeches, parliamentary minutes, or political blog contributions).

This technical device, which is not new as such but has never been integrated and adapted in conflict studies, has the crucial advantage of studying emotion directly in political context, through the prism of language. It allows the analysis to rest on non-artificial, direct, large and comparable data samples and to take into account a variety of different actors, some of them not available for questionnaires or testing. This approach is thereby particularly well suited to study the collective dimension of emotion. The collectivisation of emotions inside a particular group (or across various groups) can be attested by examining with the LIWC multiple documents emanating from its members. For these reasons, we import the LIWC from its initial domain of psychological counselling to study emotion in political conflict contexts. The LIWC, however, has a shortcoming: it is built on a narrow definition of emotion, due to its original use in counselling. We therefore had to alter the initial functioning of the software by making it able to detect not only emotions but also emotional worldviews.

Since its first developments, the software has been perfected and its scientific pertinence and validity secured (Tausczick and Pennebaker 2010; Gill et al. 2008; Kahn et al. 2007). The LIWC has already been used to document the presence and impact of emotion in politics broadly speaking, but only rarely and within narrow research designs. It has nonetheless already provided promising insights. For example, Taylor and Thomas (2008) have demonstrated the importance of matching stakeholders’ “linguistic styles” to secure successful negotiations. Pennebaker and Lay (2002) have highlighted the chronological variations in Rudolph Giuliani’s emotions throughout the press conferences of his mandate, and Pennebaker, Slatcher and Chung (2005) have contrasted the emotions expressed in John Kerry’s, John Edward’s and Al Gore’s interviews. Considering the political dimension of social media, Cohn, Mehl and Pennebaker (2004) have assessed the emotional response of bloggers after 9/11. Given all this, it does not seem exaggerate to claim that we should be able to measure the emotional tone of political texts and contexts in international politics through the use of the LIWC software.

**A two-step method**

Coherently with our model, our method has to start with a significant political event; it then proceeds in two steps, in whichever order. These two steps are presented here in a programmatic fashion in order to allow further research on emotional worldviews and emotional configurations.

First, the LIWC is launched to measure in selected texts (speeches, parliamentary minutes, weblogs, interviews transcripts, etc.)[[8]](#footnote-8) emotions strictly speaking, in order to establish the emotional configuration. The LIWC provides two kinds of results. On the one hand, it measures the general emotional tone of the texts under scrutiny, with two raw scores: one which reflects the saliency of positive emotion in the text, and the other one reflecting negative emotion. On the other hand, it measures the saliency of several simple emotions (the LIWC initial working scheme currently allows the analyst to get scores for three emotions: anxiety, anger, and sadness) and one complex emotion (resentment, which has to be added to the LIWC initial working scheme).[[9]](#footnote-9) Because pronouns are robust indicators of the general emotional tone of political discourses in the sense that they reveal the magnitude of intergroup tensions (Pennebaker 2011), another set of measurement is then carried out, aimed at detecting unusually high frequencies of specific pronouns: “I” words (I, me, my, etc.), “we” words, and “they” words. More precisely, it is expected that “extreme groups use ‘I-words’ at extremely low rates, ‘we-words’ and ‘they-words’ at very high rates. Their members are making distinctions between their ingroups and those who are different, which is the basis of their emotional tone”.[[10]](#footnote-10) For each emotion or pronoun, the software provides a raw quantitative score, which reflects the percentages of words and kinds of words that are particularly associated with the expression of a specific emotion, out of the total amount of words in the text under scrutiny. Scores do not therefore possess any essential meaning: indeed these numbers have to be compared through the adequate statistical tools with other results – ideally with already-established norms of various types of texts: blogs, emotion-laden reports, controlled writings, and the like (these norms are provided with the LIWC). Comparisons allow the analyst to conclude that political texts under scrutiny are statistically similar/different, or have (ab)normal scores on specific emotions. This mapping of the respective intensities of specific emotions reveals emotional configurations. If multiple texts are considered within a single sample, their coherence can be assessed by examining the coefficient of variation of the sample and comparing it with that of standard LIWC texts.

Second, this initial search is expanded by measuring several elements susceptible of partaking to an emotional worldview; they both convey a clear emotional charge and are of particular interest given the case under scrutiny. For example, an analyst who studies emotions in nationalist leaders’ discourses may look for linguistic clues evoking particular traumas and rituals specifically linked with the nationalist movement at stake. The LIWC has the ability to compute variables close to such elements, but the analyst has to complements this program by creating new LIWC variables in accordance with the specificities of his/her case.[[11]](#footnote-11) Again, the resulting data has to be compared, via adequate statistical tools, with that provided by standard texts.

1. **The 2011 Palestinian statehood bid at the UN and UNESCO**

**Setting the stage: The statehood bid in speeches and blogs**

On September the 23rd, 2011, Mahmud Abbas handed over an application letter to Ban Ki-Moon for full UN membership for Palestine. Shortly after, Abbas made a speech supporting this bid for Statehood at the UN General Assembly, followed on the tribune later that day by Benyamin Netanyahu, speaking on the same issue. The bid has then been withheld due to diplomatic tensions, only to be re-handled with more success but in a less ambitious form a year after. On October the 31st, 2011, Palestine was nonetheless admitted as a full member to the UNESCO during the organisation’s general conference.

We examine the emotional worldview and emotional configuration that permeate through two key speeches on the one hand and an extensive series of blogs on the other hand. We analyse Abbas’ and Netanyahu’s speeches made at the UN General Assembly on the day the bid was presented because they are supposed to express the official views of, respectively, the Palestinian Authority and Israel on the Statehood bid in particular and the state of the conflict in general. It is worth noting that leaders usually receive the assistance of speechwriters. However, given the importance of speeches at the UN, it is very likely that leaders contribute for the largest part to these interventions and fully endorse them. Furthermore, speechwriters are expected to share his/her leader’s worldview and emotions. Besides, leaders are capable of hiding their emotions, which should encourage us to interpret our results as underestimations. Our data will show, however, that the LIWC is able to detect emotion in speeches, putting forward already remarkable results.

Since “collective emotions take place in the public sphere, including the mass media and public speeches” (Bar-Tal, Halperin and De Rivera 2007: 447), and given the importance of mass media in the diffusion of social norms of intergroup perception and behaviour in conflict settings (Paluck 2009), we also put a series of blogs under scrutiny, in order to unveil the emotional worldview and emotional configuration of a particular interpretive community or “online public sphere” (Hindman 2008) constituted by the numerous online political commentators of the conflict. The aim is not to treat blogs and speeches indifferently, as they play different roles, but rather to assess the similarity of worldviews and emotions in the two texts in order to unveil a hypothetical ingroup “profile” shared by both leaders and the media, which are two the prominent actors in the collectivization of emotions within a group. Whilst speeches are far from unknown for the political analyst, Internet-based texts are still neglected for various reasons. They constitute, however, not only a valid but also a highly valuable material for pragmatic and methodological reasons. On the pragmatic side, and as the recent uprisings in the Maghreb and Mashrek illustrate, the Internet in general and blogs and social networks in particular are no more a negligible part of conflicts. It was estimated that “the spectacular growth of blogging” (Chadwick and Howard 2009: 4) brought about approximately thirty million blogs worldwide in 2008, a significant amount of which being politically-oriented (Hindman 2008). Influential opinions and powerful emotions are developed through this channel outside traditional political spaces. In other words, the political blogosphere has evolved “from an interesting curiosity to an enduring feature of the political landscape” (Karpf 2008:35) that should not be neglected. Methodologically speaking, it makes sense to work with blogs if one wants to get insight on the truly social, collective dimension of emotion – an aspect which is not necessarily attained by investigating political leaders’ speeches. Blogs are intrinsically communicative media, creating networks and discussions. As Vatrapu, Robertson and Dissanayake showed (2008), political blogs emanate from a desire to display and communicate emotions related to a political issue or state of affairs. Through this “digital circulation of affects” (Kuntsman 2010), participative Internet such as blogs and Twitter both at once foster ingroup cohesion across territorial boundaries by strengthening transnational “unbounded citizenships” (Cammaerts and Van Audenhove 2005) and accentuate intergroup separation and differences (Conover et al. 2011; in line with Cobb & Kuklinski 1997). Aouragh (2011) and Kuntsman (2010) have illustrated these elements in the case of the Israeli-Palestinian conflict, whilst Zeitzoff (2011) has used the case-study of the 2008-2009 Gaza conflict to demonstrate the usefulness quantitatively scrutinizing the social media to determine the intensity of a conflict.

To ground the analysis on a coherent basis, we selected blogs according to three criteria. First, blogs had to be exclusively dedicated to commenting the Israeli-Palestinian issue and to be either pro-Palestinian or pro-Israeli, as this is necessary for the comparative logic of our analysis, which aims to contrast different families of political texts from different groups with standard samples. By pro-Israeli and pro-Palestinian blogs, we understand blogs that are unambiguously in support either of Israel or Palestine, blogs whose posts are clear-cut expressions of support of one side and condemnation of the other side (most political blogs dedicated to the conflict actually present themselves in such way). Second, we did not include blogs that simply reproduce, without any form of comment or presentation, journal articles or contributions from other blogs. Third, blogs had to be written by native English speakers from outside Israel and the Palestinian territories. Of course the analysis should ideally have taken into account all pro-Palestinian and pro-Israeli blogs regardless of their language or geographical location. However, the technical requirements of the LIWC (which necessitates native or near-native English texts) would have led us to include local blogs written in English and not local blogs written in Hebrew or Arabic, thereby introducing a selection bias. We opted for the second-best, imperfect yet most methodologically secure option of selecting only blogs from the English-speaking world, acknowledging the unbounded character of political groups, which expand across geographical boundaries. In his qualitative analysis of pro-Israeli and pro-Palestinian diasporic cyberspaces, Kuntsman indeed particularly stressed the “elastic” character of the geographical limits of these groups (Kuntsman 2010). Previous findings on diasporas and transnational group belonging, which emphasize the strength of membership across borders and the high intensity of ingroup feelings among expatriate members (e.g. Connor 1994; Diekhoff and Jaffrelot 2004), tend to suggest that our choice should not significantly alter ideal results. Our statistical analysis is made on the basis of the posts from the selected blogs that discuss the bid for the official international recognition of Palestine as a State, both at the UN as such and at the UNESCO. Selected blog entries cover a period of two months before and after the bid, ranging from July the 23rd until December the 31st of the same year.[[12]](#footnote-12)

**First step: Measuring emotional configurations**

Starting with blogs, we aggregated all posts from each blog within a single text corresponding to a blog, and classified these texts in either the pro-Palestinian or the pro-Israeli category. We subsequently operated all these single blog texts with the LIWC,[[13]](#footnote-13) and looked at the scores for the LIWC lexicons named “posemo” (measuring positive emotions), “negemo” (measuring negative emotions), “anxiety”, “anger”, “sadness”, and “resentment”. We also computed scores for pronouns. For each outcome, we computed the mean and the standard-error of the two series of blogs. To measure the emotional tone of the blogs, we provide two statistics: the first allows us to compare the various samples and the second tests the internal coherence within each sample.

In order to compare pro-Israeli and pro-Palestinian blogs, we used a one-tailed Welch’s t-test to detect significant differences between the means of the two samples of blogs. The same method was used to assess whether or not these samples are statistically different from three LIWC reference texts: “LIWC blogs” is a large random sample of blogs;[[14]](#footnote-14) “LIWC control writing” and “LIWC emotion writing” are aggregations of thousands of texts expressing, respectively, remarkably low and particularly high emotionality.[[15]](#footnote-15) This first set of comparisons allows us to detect whether or not the two families of blogs show a high presence of emotion, both generally speaking through the positive/negative emotion and pronouns results, and then more specifically through anger, anxiety, sadness and resentment scores. As Table2 shows, pro-Israeli and pro-Palestinian blogs show a strikingly similar (indeed almost identical) emotional profile. There is indeed no statistically significant difference between the two groups of blogs regarding any of the specific emotions under scrutiny (at a 5% threshold). The ideas are expressed in both samples of blogs with a language that reflects an analogous high emotional profile. Pro-Palestinian and pro-Israeli blogs actually present a tamed emotional tone in comparison with blogs in general; however, it appears that blogs in general are highly emotional texts – their norms are similar to those of the “LIWC emotional text”. Under this light, we can say that the political blogs under scrutiny here are indeed clearly emotional texts. One result is of particular interest: anger. Whilst blogs on the Israeli-Palestinian conflict do not demonstrate a higher level of anger than blogs in general, both groups of blogs under scrutiny here score higher than emotional texts; pro-Israeli texts even surpass them to a statistically significant extent, with a rate of anger which is no less than six times more important than that of the LIWC control writing. Given the importance given to anger by scholars working on emotion in conflicts (e.g. Tam et al. 2007), and its role in the Israeli-Palestinian conflict (e.g. Halperin and Gross 2010), this result is noteworthy. When considering blogs, we can therefore conclude that emotion – especially anger – noticeably permeates from the radical narratives. As regards pronouns, pro-Palestinian and pro-Israeli blogs present again a very similar profile; the mean number for “they” words is even the same one. More precisely, they score remarkably low on “I” words and high on “they” words, as expected by theory on emotion, language and intergroup conflict. As previously noted, this reflects the fact that contributors share both strong in-group feelings and out-group rejection.

Table2

In order to be sure that each family of blogs is coherent as regards emotions, we also conducted a F-test for comparing the coefficients of variation of the blogs and the three LIWC reference texts.[[16]](#footnote-16) The lower the coefficient of variation of a sample, the higher the coherence of the sample. What clearly appears from this test is the remarkable internal cohesion of each family of blogs, as the emotional expression is uniform within each family (Table3). All coefficients of variation of emotions in pro-Israeli and pro-Palestinian blogs are significantly lower than those in LIWC standard blogs. Coefficients of variation of pronouns also lower, except for “I words” (which is explained by their low frequency in our blog samples compared to the LIWC blogs). This difference is sharp: for emotions, all but one coefficients of variation in our samples are lower than one third of those in LIWC blog samples. In other words, emotional configuration within each group of blogs is highly homogeneous.

Table3

Let us now turn to speeches. Because in our case speeches are single-texts, the adequate statistical analysis has to be different than that carried out for blogs. Rather than comparing sample means and coefficients of variation, we propose to examine whether or not Abbas’ and Netanyahu’s speeches at the General Assembly could statistically be considered similar to standard emotion-laden texts on the one hand and emotion-controlled texts on the other hand. Practically, for each speech and each outcome, we calculate the probability (one-tailed p-value) that the speech could be considered as being part of the population of emotion-laden texts or emotion-controlled texts. Considering the overarching categories of positive and negative emotions, it is striking to remark that both Abbas’ and Netanyahu’s speeches similarly reveal a positive emotional tone. A look at the p-values teaches us that both Netanyahu’s and Abbas’ speeches cannot be considered to be controlled texts and that one cannot conversely reject their categorisation as emotional texts. In sum, both speeches share a remarkably similar emotional profile, showing a positive tone. Their negative emotional tone is moderate, scoring between controlled and emotional texts. Regarding specific emotions, the picture is similar: no speech unambiguously shows a significantly high level of a specific emotion, except from anger in Netanyahu’s speech. Whilst Abbas’s speech scores rather high on this variable, Netanyahu’s speech presents a significantly higher level of anger. This is all the more remarkable given political leaders’ ability to hide negative emotions. Regarding pronouns, both speeches present analogous patterns that those of blogs: a very low use of “I” words and a high use of “they” words are typical of intergroup conflict narratives. This time we find a high frequency of “we” words, which reinforce this pattern. It is also interesting to note Netanyahu’s high use of “you” words, which probably reflects his attempt to connect with the audience and create a bond of emotional empathy.

Table4

In sum, and considering both blogs and speeches, the overall emotional tone of the texts under analysis clearly proves to be present, and in a remarkable way. First and foremost, each group possesses a specific, coherent emotional configuration, defined by the intensity of its expression of anxiety, anger, sadness and resentment. It is remarkable that political speeches and blogs, which are supposed to be very different sorts of expression, are highly similar in this respect. Second and no less clearly, both groups appear to share a similar emotional configuration. To be sure, the pro-Israeli emotional configuration is characterised by a more pronounced saliency of anger than the pro-Palestinian emotional configuration, but both are far above normal standards. Figure2 in online appendix may help to visualize both the internal cohesion of each group’s emotional configuration and their striking resemblance.

**Second step: Measuring emotional worldviews**

We followed the same steps for the measurement of emotional worldview. We chose to compute four lexicons, each aiming at societal beliefs that are susceptible to participate in a pro-Israeli or pro-Palestinian emotional worldview. Given the literature on the emotional dimension of the Israeli-Palestinian conflict, we computed the amount of religious references, preoccupations with death, suggestions that misinformation, lies and biases about the conflict are ubiquitous in the media and the political sphere, and allusions to the NAZI regime and the genocide it perpetrated. One can indeed feel and understand (and eventually act upon) an emotional episode – here, the Statehood bid – by referring to socially shared religious truths (labelled “Religious” in the tables), in direct reference to the Holocaust traumatic past (labelled “Nazi” in the tables), as a matter of existential struggle between life and death (labelled “Death” in the tables), or as yet another proof that perceptions on the ingoing conflict are massively biased in a prejudicial way (labelled “Truth” in the tables). None of these elements could be imagined to convey no emotion, and all have been evoked in literature on the conflict.[[17]](#footnote-17)

It has to be noted that neither allusions to NAZI crimes nor the issue of biased perception can be measured by the LIWC in its original version, contrarily to references to death and religion; just like we measured resentment, we had to create two specific lexicons and to run them with the reference texts in order to establish proper statistical norms. For the NAZI element, we created a new LIWC lexicon with 25 highly representative keywords of this issue, carefully avoiding including any word which could possess another meaning than its NAZI reference (the word “camp”, for example, does not only refer to concentration camps). We proceeded in an analogous fashion for the making of the truth lexicon.[[18]](#footnote-18)

Table5 shows the comparison of LIWC scores for worldview elements in blogs. Whereas the emotional tones of the two sets of blogs were hardly distinguishable, measuring emotional worldview elements let as hypothesized appear sharp differences between them and in comparison with reference texts. The religious element is remarkably salient on both sides, but pro-Israeli blogs obtain a considerably higher score than pro-Palestinian blogs; references to religion are no less than six times more present than in the LIWC emotion text, and approximately two and a half times more present than in pro-Palestinian blogs. References to the Holocaust and the NAZI regime are clearly recurrent in pro-Israeli posts, and far less frequent in pro-Palestinian blogs; the Statehood bid is regularly commented, by pro-Israeli actors, with direct references to the Holocaust. References to death are also multiple and more prominent in pro-Israeli blogs, even if pro-Palestinian blogs already score high in comparison with emotional writings: pro-Israeli blogs have twice as much references to death than the LIWC emotion text (and ten times more than the LIWC control text). These observations about death and the Holocaust are consonant with previous (qualitative) studies on the presence of an “existential fear” in Israeli society (e.g. Shalit 1994) that takes its roots in collective memory. The picture is similar for references to supposedly biased opinions and information on the conflict. Whereas this preoccupation is not absent from pro-Palestinian narratives, it permeates much more heavily (almost 60% more) from pro-Israeli blogs, which makes it a particularly salient feature of the pro-Israeli emotional worldview.

Table5

As for emotional configurations, the analysis of the coefficients of variation documents the remarkable coherence of each blog sample with respect to worldviews (table6). All coefficients in our samples are lower than those of reference texts.

Table6

The analysis of emotional worldview elements in Abbas’ and Netanyahu’s speeches brings about a clear pattern of results in great coherence with blogs: once again, emotional worldviews are coherently shared within both sides – but this time not really between both sides. A second observation is that on all aspects, Netanyahu’s speech scores higher than Abbas’. The Holocaust worldview is salient in Netanyahu’s speech but not in Abbas’; the religious worldview appears important on both sides, but with a remarkably high score in Netanyahu’s speech; the truth worldview is no less than approximately five times more salient in Netanyahu’s speech than in Abbas’ one; finally, references to death are also omnipresent in both texts, but in greater proportions in Netanyahu’s account.

Table7

In sum, each group is characterised by a specific emotional worldview made of an ensemble of framing elements that are present with particular intensities both in blogs and in speeches. Contrarily to emotional configurations, pro-Israeli and pro-Palestinian emotional worldviews are neatly distinguishable. The pro-Israeli emotional worldview appears to be particularly unique, not only in content but more strikingly in intensity. Figure 3 in online appendix may help to visualise these worldviews.

1. **Conclusions and perspectives**

Emotion not only plays an important role in the creation of conflicts but also in their perpetuation and potential resolution. Because this role has so far largely been assessed through indirect methods, and because the interplay between the individual and collective levels of emotion was in need of further theorization, our aim here was to complement today’s most comprehensive model – Halperin, Sharvit and Gross’ “appraisal-based framework” (2011) – with three theoretical advances on the collective dimension of emotion in situations of political conflict, and to provide a replicable method for the direct measuring of emotions that operationalizes these advances. As regards the theoretical input, we exposed the dynamics that link the individual experience of emotion to the societal process of group affiliation, by highlighting that groups have particular emotional worldviews and hence emotional configurations and by emphasising the cyclic character of collective emotional dynamics. As regards the method, we made the case that the merit of our two-step quantitative LIWC-based analysis mainly stands in the direct character of its measurement of emotions and worldviews and in its ability to reveal that emotions have particular intensities.

Applied to the case of the 2011 Palestinian Statehood bid, our method disclosed two noteworthy results. First, it neatly appeared, in line with our model, that each group is characterised by a specific emotional worldview and a specific emotional configuration, whose coherence is here striking. Ross’ claim that emotions “are experienced by decision-makers and publics alike” (Ross 2006: 199) is well illustrated, and our findings stand in line with Scheff’s and Retzinger’s suggestion that paths towards peace negotiations are blocked by very high ingroup emotional uniformity (Scheff and Retzinger 2001). Pro-Israeli blogs and speech are characterised by an emotional configuration whose immediately identifiable main trait is a very high level of anger, and by an emotional worldview whose religious, truth, and death elements are very salient. In the pro-Palestinian emotional configuration anger, sadness and anxiety are unmistakable emotions, whereas religious and death elements are also constitutive of the emotional worldview, although in a less exaggerated way than in the pro-Israeli side. As anger is “one of the most powerful and prevalent” emotion in conflict, “a significant emotional barrier to negotiation, compromise, and forgiveness” (Halperin et al. 2011: 275) that creates “automatic prejudice toward the outgroup” (De Steno et al. 2004: 319), these finding are noteworthy. The emotional dimension of the conflicting relations between pro-Palestinian and pro-Israeli political actors is further attested by a very special pattern of use of pronouns, which is typical of radical political narratives and intergroup tensions. Second, it also appears that whereas each side possesses a more or less coherent emotional worldview and emotional configuration, they also appear to share, together, remarkable similarities. Both the pro-Palestinian and the pro-Israeli emotional worldviews indeed present unusual levels of religious and death elements, but the most striking resemblance is that of their emotional configuration, which truly are in a “mirror” situation. This suggests that *inter*group uniformity might also play a role in the persistence of conflict. In the present case of the Israeli-Palestinian conflict, the high presence of anger in both groups is consistent with Bizman and Hoffman’s (1993) findings that anger comes from the perception that the outgroup is responsible for the conflict.

To be sure, however, no generalisation on the role of collective emotion on conflicts should be done from this single case-study. We nonetheless hope that our clarification of the appraisal-based framework, our method and its first yet significant results will contribute to boost the empirical research agenda in the field, paving the way for extensive empirical research on the role of particular emotional worldview and emotional configuration (and their resemblance/dissemblance) in conflicts. More specifically, four research topics are raised and immediately made available to empirical testing by the renewed framework and method.

First, efforts should be made to test the most fundamental assumption that most individuals or subcategories of a group share a common emotional worldview and emotional configuration at a given time. Our empirical case-study seemed to confirm this idea by revealing a great coherence of the emotional worldview and emotional configuration of two different actors (bloggers and political leaders) within a single group. Only further empirical measurement in other settings than that of the Israeli-Palestinian conflict could confirm the thesis according to which most strands of a given population possess a single emotional worldview and emotional configuration. Depending on the context of the conflict and on prevailing theories, alternative lexicons measuring different emotions and worldviews could be build – e.g humiliation, contempt, or fear (Scheve and Salmela, 2014; Longo et al. 2014; Ginges and Atran 2008). Besides, single group case-studies could also be conducted in order to rigorously test claims on society’s emotional uniformity or heterogeneity, and their extension to intergroup uniformity or heterogeneity.

Second, further empirical research could assess a core assumption and a key hypothesis of our model – the stability, *over time*, of emotional worldviews and emotional configurations within groups. By measuring the emotional configuration of a group at various moments and by examining the impact of a number of clearly distinct emotional episodes on the emotional configurations of this group, one could accurately establish whether groups truly possess some sort of emotional profile.

Third, further research could measure chronological variations in the *intensity* of emotional configurations within the groups impacted by a long-standing conflict (e.g. the Israeli-Palestinian conflict), and henceforth suggest a theory of how the intensity of emotional configuration affects conflict escalation and waning. This agenda is not only relevant to IR case-studies, but could also contribute our understanding of conflicts that are present at a more local level (country, county, city, neighbourhoods).

The fourth theoretical-empirical agenda unfolded by our model is the most challenging one: its goal is to test whether or not particular emotional worldviews produce specific emotional configurations regardless of the characteristics of the emotional event that occurs. To do so, a large-scale comparative perspective is necessarily needed that would look for recurring patterns of relationship between emotional worldview, emotional configuration, and the intensity of conflict – but this was clearly beyond the scope of the present paper.

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1. See e.g. Moore and Aweiss, 2002; Halperin, Bar-Tal, Nets-Zehngut, and Drori, 2008; Fattah and Fierke, 2009; Fierke, 2008; Baele, 2011; Halperin 2011. [↑](#footnote-ref-1)
2. To be sure, Halperin and Bar-Tal (2011) have already identified worldviews as important barriers to peace, but this effort has not clearly been linked with the appraisal-based framework. Here, we claim that their conceptualization would gain in being connected with the concepts of “long-term sentiments”, “non-affective factors” and “framing” put forward in Halperin, Sharvit and Gross’ appraisal-based framework, or more importantly with Bar-Tal, Sharvit, Halperin and Zafran’s (2012) concept of “ethos of conflict”. [↑](#footnote-ref-2)
3. Importantly, he demonstrated that worldviews and their underlying emotions are detectable in language [↑](#footnote-ref-3)
4. EEG is the acronym for Electroencephalography, and MRI stands for Magnetic Resonance Imaging. [↑](#footnote-ref-4)
5. Such as in Krendle et al. 2006. [↑](#footnote-ref-5)
6. Specific emotions provoke specific *physiological effects* (e.g. sweating, increase in heart rate, etc.), *actions and behaviors* (e.g. flight, fight, etc.), and *verbal choices* (Ohman 2006). [↑](#footnote-ref-6)
7. Such as Sullivan and Masters 1988. [↑](#footnote-ref-7)
8. Both written and spoken statements can be analyzed. Literature indeed suggests that emotions are in both cases expressed through a similar language use. Tannen (1980; 1982) argued that instead of opposing written and spoken narratives, it is more pertinent to place then on a continuum. Biber and Conrad (2001) went further by dismissing the written/spoken difference in profit of a “register” variation of narratives between the two extremes of “involved” versus “informational” productions. [↑](#footnote-ref-8)
9. Read Damasion 1994 on the distinction between simple and complex emotions. The “resentment” lexicon does not exist in the original LIWC scheme, but has been created, in collaboration with LIWC creator Prof. J. Pennebaker (U. Texas), first by aggregating the words from the Roget’s Thesaurus and the Meriam-Webster Dictionary, and second by building on the philosophical (Nietzsche 2002; Scheler 1933), psychological (Oatley 2009) and sociological (Scheff 2000; Petersen 2002) literature on resentment, selecting the most pertinent of the words directly or indirectly presented by the authors as characteristic of resentment narratives. [↑](#footnote-ref-9)
10. Author’s email interview with Prof. J. Pennebaker, March 28 2012. [↑](#footnote-ref-10)
11. On these modifications, read LIWC User Manual. [↑](#footnote-ref-11)
12. Table1 in online appendix sums up the descriptive statistics of this sampling. [↑](#footnote-ref-12)
13. Before running the LIWC, the user has to “clean” them according to the *LIWC Operator Manual*. [↑](#footnote-ref-13)
14. The sample “LIWC blogs” aggregates 75000 blog posts. [↑](#footnote-ref-14)
15. Details on these texts and their norms are provided in the *LIWC Language Manual*. We thank Prof. J. Pennebaker for his time-consuming contribution in providing us with supplementary measures needed to get robust statistics. [↑](#footnote-ref-15)
16. The robustness of this test has been demonstrated in Forkman 2009. [↑](#footnote-ref-16)
17. On death, see Bar-On 1997 or Shalit 1994. On the permanence of NAZI references read Zerubavel 1994 or more polemically Finkelstein 2000. On the omnipresence of discussions on truth and biases read Kressel 1987 or Isacoff 2005. [↑](#footnote-ref-17)
18. The two lexicons are available in annex. [↑](#footnote-ref-18)