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Genuine and Simulated Suicide Notes: An Analysis of Content

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1

Abstract

The present study examined genuine and simulated suicide notes aiming to identify the measures of content that best differentiate between the two. Thirty- three genuine and thirty-three simulated suicide notes were content-analysed and data subjected to Smallest Space Analysis (SSA), a Multidimensional Scaling Procedure. The core of all suicide notes was discovered to be constructed with the use of three variables: *expressions of love*, *positive construction of partner* and *apologies*. Furthermore, four different genuine suicide note themes ('planned escape', 'negative affect and self-mitigation', 'positive affect and failed relationship', 'lack of self-acceptance') and three simulated suicide note themes ('escape', 'positive affect and self-blame', 'purposeless life') were identified revealing that authentic suicide note themes were more internally consistent and clearer to interpret.

Keywords: suicide; suicide notes; genuine suicide notes; simulated suicide notes; MDS analysis

Suicide note writing has an important social dimension [1]. Suicide notes are a window to the manner in which suicides construct themselves, others and their surrounding reality and consequently – to the reasons of death. This is reflected in a study [2] inquiring into the discursive self-presentation of suicidal individuals in online interactions. The researchers reveal how their subjects' ability to think prospectively is disturbed. Suicides may be motivated to leave a note in order to have their needs understood by others as suicide notes are always aimed at audience and hence they create a social act – they transport meanings and construct suicide's reality. As [3] report, suicide notes constitute a peculiar self-continuation and enable the deceased to exert some influence even after death. Even more, they hold the power to connect the writers to their close ones. It, therefore, seems important to study the content of suicide notes in order to understand suicidal individuals.

The Suicidal Mind and Suicide Notes

Four types of suicide: egoistic, altruistic, anomic and fatalistic have been distinguished [4]. Egoistic suicide is a person who failed to integrate with others and hence suffered from the lack of social support. Altruistic suicide (or martyr suicide), on the other hand, refers to an individual who has a very strong bond with a group and this association constitutes a significant part of their personal identity. The person is ready to die in the name of the group's beliefs or for the group members (e.g. saints, terrorists). Anomic suicide happens when a person is overwhelmed with changes in their life. This includes an unexpected poverty or wealth as well as loss of a loved one (either through death or divorce). Finally, fatalistic suicide describes a person who lacks freedom, whose future is blocked and hence cannot fully express their needs (e.g. slaves) [5].

[6] sees suicide as the result of unfulfilled psychological needs. His five categories are: thwarted love or belonging, fractured control (related to achievement), assaulted self-image (an attempt at shame-avoidance), failed relationship (the feeling of grief) and excessive anger (unfulfilled need for dominance and aggression). Importantly, every suicide, as Shneidman explicates, is caused by unbearable psychological pain, the so-called psychache. Furthermore, he elucidates that the suicidal act is triggered by at least one of the following processes: inimicality, perturbation and constriction [7]. Inimicality refers to hostility being directed toward self. A person's life is characterised by an unsettled life pattern and self-destructive impulses (e.g. alcohol or drug additions). Perturbation is a state of escalated disturbance where an individual feels intolerably anxious and depressed. Constriction is characterised by the so-called tunnel vision as well as dichotomous (either-or) thinking. Such a person sees the world as either good or bad and can only focus on one state or emotion. Constriction is expressed in speech by the use of words such as "only", "always", "never" or "either/or", i.e. terms which indicate extremism and exclusion. Significantly, individuals who suffer from tunnel vision view suicide as the only and best solution. Such a constricted mind is likely to produce a contradictory and confusing message [8]. This production of contradictory messages may also be caused by alexithymia – a condition characterised by gloominess and despondency and a divergence between one's feelings and thoughts [6]

The Content of Genuine and Simulated Suicide Notes

Despite the fact that people are constantly surrounded by and inundated with dishonest messages, their ability to detect fraudulent communication falls slightly above chance. Human beings are much more likely to surmise that what they hear or see is truthful, an assumption often referred

to as the truth bias [9,10]. The same inability to distinguish genuine and false communication can be witnessed when suicide notes are assessed [11]. Therefore, "given this inability of humans to successfully detect deception, a clear need exists for improved tools to assist in these credibility determinations" [10].

According to Shneidman and Farberow [12] an individual who decides to commit suicide is most likely to leave a note which contains instructions to those who are left behind. "The genuine-note writer has apparently accepted and incorporated the idea that within a short time he will not be alive. He therefore instructs and admonishes in relation to the many details of continued living which he will not be able to pursue himself. The fictitious-note writer (...) does not take that additional step of converting his fantasy into the "reality" of imminent absence" (p. 113). Similarly, Gregory [11] established that real suicide notes are best distinguished by measures of content: an external locus of control (responsibility is not theirs), specific or no explanations given, positive emotional content and instructions left. Non-suicidal individuals, on the other hand, are more likely to use stereotypes of suicide motives as their explanations (e.g. "I've had enough") as well as express highly negative emotions (such as anger, hatred). Similar results relating to positive affect and expressions of anger were found by Arbeit and Blatt [13] as well as Ogilvie, Stone and Shneidman [14]. Fictitious note writers express more anger and blame others for their predicament due to their stereotyped ideas of suicide. Nevertheless, McClelland, Reicher and Booth [15] claim that genuine suicide notes also contain references to socially shared representations of suicide.

A content analysis of genuine and simulated suicide notes was conducted in order to determine which encoding characteristics of the suicidal individual can be intuited and, therefore, faked by the non-suicidal person, and which cannot [16]. The researchers identified that real note writers use significantly more mands (expressions of need that require some reaction from another person to be satisfied, e.g. "Don't feel too bad", "I hope you understand"). Descriptions of specific motives, terms of endearment, positive emotional states as well as ambivalent feelings towards the loved ones are also more common for genuine suicide notes, whereas non-suicidal individuals tend to use more abstractions (e.g. life, the world, all, fate) and more references to the act of suicide itself. Genuine suicide notes were found to contain more active verbs (e.g. do, get, give, take) and simulated suicide notes were composed of more verbs referring to cognition (e.g. know, think, see). Indeed, Drew [17] established that suicides are aware that their decision will affect others, however, they are also likely to blame others for their plight.

Langer et al. [3] who analysed suicide notes obtained from the coroner's office, suggest that some suicides present themselves as martyrs whose death will benefit others. "Examples of this kind were the young man who insisted he had to kill himself to give his brother a reprieve so he could remove his possessions before the bailiffs arrived to repossess their house" (p. 304). There were also notes which contained detailed financial and emotional instructions to others, including instructions as to how they should be remembered by the bereaved. Most notes were apologetic, expressed regret and sorrow and provided an insight into the suicide's constricted (dichotomous) patterns of thinking. As for structure, the analysed notes were likely to have spelling mistakes and crossed out sections.

Furthermore, Jacobs [18] recognised six categories of genuine suicide notes: first form notes (characterised by asking for forgiveness or indulgence), sorry illness notes (great suffering; apologies given), not sorry illness notes (great suffering; no apologies given), direct accusation notes (a person responsible for the suicide's death identified), will and testament notes (how the author's property should be apportioned) and notes of instruction (often brief and containing elements of will and testament notes). As apparent, first form letters in which the author begs for forgiveness can be seen as the basis for most suicide notes which can then extend into more specific types. By the same token, Giles [19], who performed Smallest Space Analysis on 173 genuine suicide notes, argues that apologetic suicide notes are most common and most easily forged. Indeed, apologies constitute the core of a suicide note (either real or fake) and the core is referred to as the "suicide note genre". Other items that constitute the "suicide note genre" are constriction, instructions, positive constructions of other, elaborate mental pain, autonomy, expressions of love. Giles [19] suggests that the genre is intuitively accessible to everyone who wishes to produce a suicide note for whatever reason and recognised three genuine suicide note types: relational and health disputes, mental and physical health and intentional escape.

McClelland et al.'s [15] results confirm some of Giles' [19] main tenets. They carried out a discursive analysis of 172 authentic suicide notes, and discovered that most common themes brought up in the notes included: blame negotiation (this included self-blame, other-blame and self-mitigation), causes of suicide, expressions of love, apologies, leaving instructions, will/bequeaths, asking for forgiveness and thanking. McClelland et al.'s [15] approach was discursive and hence strongly rooted in the tradition of social constructionism. Therefore, one of the main concerns was to establish how and through what means suicides aim at constructing self

and others. Indeed, it has been observed that writers positioned themselves in relation to others though describing actions and events. Something that "objectively" happened, hence, was to legitimise their stance. Further support for those themes comes from Foster's [20] analysis of 42 suicide notes from Northern Ireland revealed that most writers included in their notes apologies/shame (74%), love for close ones (60%), references to unbearable life (48%), practical instructions (38%), suggestions that they have nothing to live for (21%), and advice for audience (21%).

In line with psychological phenomenology assertions, the discrepancies between genuine and simulated suicide notes may be affected by the fact that the experience of suicidal individuals cannot be directly observable by and thence accessible to an outsider [21]. A fictitious note writer, in order to gain an insight into the suicidal individual's cognition, would need to assume an insider's perspective [22]. The task, howbeit, is complicated by the outsider's expectations and experiences – a process described as a double hermeneutic [23].

As research conducted in the area of suicide notes has been inconclusive in terms of differentiating genuine and simulated suicide notes, the present study aims to verify whether differences in content can successfully distinguish between genuine and simulated suicide notes using Multidimensional Scaling techniques (MDS).

Gregory [11], who conducted a multivariate analysis on the same sample of suicide notes, established that measures of content best discriminate between real and fake suicide notes. However, he only investigated five content items therefore further research is necessary to evaluate this claim.

METHOD

Sample

Thirty-three pairs of suicide notes were obtained from the corpus collected and published by Shneidman and Farberow [12]. Each pair contains one genuine (written by a person who committed suicide) and one simulated suicide note (written by a non-suicidal individual). The homogeneity of the sample was achieved by matching note writers within each pair for age, gender and occupational level. The genuine suicide notes were obtained from the Office of the Coroner in Los Angeles County. All simulated suicide note writers were volunteers who agreed to take part in the research aimed at suicide prevention. Participants were instructed to write a note which they would leave were they to take their own life.

Procedure

Content analysis was performed on the genuine and simulated suicide notes based on the content dictionary created by Giles [19]. The dictionary consists of 75 variables which are organised into five sections; practical features of the notes, constructing suicide and the decision to die, constructing an explanation for suicide, constructing self as well as constructing others.

In accordance with Giles' instructions, all notes were separated into thought units which were analysed for their function and then coded appropriately. One thought unit could be coded as more than one variable provided it served more than one function in the text. In addition, as suggested by Giles, all clauses which appeared in the text but could not be coded with the use of existing variables were taken note of. As a result, additional variables were introduced to capture the function of those clauses. Consequently, eight new content variables were created (*care*,

mad, *memories*, *solution*, *anger*, *noresent*, *mixed* and *reassurance*) and grouped into the existing

five broader categories presented above. In addition, two structural features of the notes were

recognised (*abstract* and *metaphor*).

Items from the dictionary [19] with a frequency of .0 (*noresus*, *help*, *dispute*, *bereave*, *offender*,

victim, *quality*, *challenge*, *share*, *posimp* and *stressors*) were removed from analyses. These

resulted in 74 variables. Full variable descriptions are given in the Appendix. All content

variables were coded in a dichotomous form (either present or absent).

Analysis

The data was analysed using SSA – I. Smallest Space Analysis (SSA) allows a test of hypotheses

concerning the co-occurrence of every variable with every other variable. In essence the null

hypothesis is that the variables have no clear interpretable relationship to each other. Smallest

Space Analysis is a non-metric multidimensional scaling procedure based upon the assumption

that the underlying structure, or system of behaviour, will most readily be appreciated if the

relationship between every variable and every other variable is examined.

Smallest Space Analysis (SSA) represents the co-occurrence of variables as distances in a

geometrical space. The SSA program computes association coefficients between all variables. It

is these coefficients that are used to form a spatial representation of items with points

representing variables. Each point in the space represents a distinct characteristic of the events

under study, such as whether writer leaves financial instructions and bequeaths. The closer any

two points are to each other on the spatial configuration, the higher their associations with each

other. Similarly, the farther away from each other any two points are, the lower their association with each other.

A number of studies have found such MDS models to be productive [24-26]. The particular power of SSA-I comes from its representation of the rank order of co-occurrence as rank orders of the distances in the geometric space (the use of ranks leads to it being considered non-metric MDS).

The measure of co-occurrence used in the present study was Jaccard's coefficient. Jaccard's coefficient calculates the proportion of co-occurrences between any two variables as a proportion of all occurrences of both variables. To test hypotheses, an SSA configuration is visually examined to determine the patterns of relationships between variables and identify thematic structures. Variables with similar underlying themes are hypothesised to be more likely to co-occur than those that imply different themes. These similarly themed variables are therefore hypothesised to be found in contiguous locations, i.e. the same region of the plot. The hypothesis can therefore be tested by visually examining the SSA configuration. The coefficient of alienation [27] indicates how well the spatial representation fits the co-occurrences represented in the matrix. The smaller the coefficient of alienation is the better the fit, i.e. the fit of the plot to the original matrix. However, as Borg & Lingoes [27] emphasise there is no simple answer to the question of how "good" or "bad" the fit is. This will depend upon a combination of the number of variables, the amount of error in the data and the logical strength of the interpretation framework.

In summary, the SSA was used to explore the co-occurrences of content characteristics within the suicide notes and allowed for the testing of the hypothesis that they will be differentiated into themes.

RESULTS

Three separate SSA analyses were conducted; one on all suicide notes (n=66), one on the genuine suicide notes (N=33) and one on the simulated suicide notes (N=33).

Smallest Space Analysis of Content Characteristics in All Suicide Notes

Figure 1 shows the distribution of the 74 content and structure characteristics in 66 genuine and simulated suicide notes on the two-dimensional SSA. The coefficient of alienation of 0.22 indicates a good fit of the spatial representation of the co-occurrences of these characteristics. The regional hypothesis states that items that have a common theme will be found in the same region of the SSA space. As can be seen in Figure 1, visual examination of the SSA plot confirmed that it can be partitioned into three distinct regions or themes in terms of note genuineness (Simulated, Genuine, Neutral).

Variables that occur on the top of the plot were more likely to appear in simulated suicide notes, items on the bottom were more often used in genuine notes and variables on the left side were neutral, i.e. they appeared in both genuine and simulated notes with similar frequency. At the core of the SSA are the items that were used in more than 40% of all notes and therefore cannot be used to differentiate between genuine and simulated notes. These are: *apology* (45.5%), *unspecified reasons for suicide* (43.9%), *positive construction of partner* (42.4%) and *expresses love* (40.9%).

Simulated theme

The 'simulated' theme is composed of items which were often found in suicide notes written by non-suicidal individuals. The theme is composed of items which indicate cognitive rather than emotional approach to note writing [e.g. *autonomy* (v13), *plan* (v14), *understand* (v55)]. The majority of items present in this theme do not directly touch upon the reasons for committing suicide, but refer to lofty, sometimes unrelated, ideas (e.g. *reunion* (v35), *injustice* (v52)). Indeed, the use of metaphorical speech further strengthens this interpretation.

Most importantly, all variables which have been found to be negatively correlated with note genuineness appeared in this region. These are *autonomy* (v13) (χ^2 (1, N=66) = 9.103, p < .01), *burden* (v47) (χ^2 (1, N=66) = 4.243, p < .05) and *injustice* (v52) (χ^2 (1, N=66) = 7.543, p < .01).

In addition, *despond* (v30) (χ^2 (1, N=66) = 2.970, p = .085) and *reunion* (v35) (χ^2 (1, N=66) = 3.143, p = .076), were also negatively associated with note genuineness, however, the correlation was not statistically significant.

Genuine theme

The genuine theme is very emotional and raises difficult interpersonal issues (e.g. *relationship failure* (v27), *elaborate love* (v48)). Moreover, the feelings expressed by writers are mixed, i.e. there are both positive and negative emotions (e.g. *positive other* (v58) and *negative partner* (v62)), sometimes interwoven in one suicide note (the variable *mixed feelings* (v71) best

exemplifies this). Therefore, the main differences between the 'simulated' and 'genuine' regions lie in their emotional charge and the ability or readiness to use intellectual/elevated expressions.

Interestingly, items found in the 'genuine' region include all variables positively correlated with note genuineness: *identifying next of kin* (v1) (χ^2 (1, N=66) = 9.103, p < .01), *leaving instructions* (v5) (χ^2 (1, N=66) = 4.364, p < .05), *offering ideal* (v21) (χ^2 (1, N=66) = 4.258, p < .05), *relating events* (v42) (χ^2 (1, N=66) = 3.995, p < .05), *elaborate love* (v48) (χ^2 (1, N=66) = 7.831, p < .01), *mitigates self* (v49) (χ^2 (1, N=66) = 4.258, p < .05), *sarcasm* (v65) (χ^2 (1, N=66) = 7.831, p < .01), *saying goodbye* (v66) (χ^2 (1, N=66) = 4.694, p < .05) and *anger* (v69) (χ^2 (1, N=66) = 5.121, p < .05). Three variables with a positive but not statistically significant association are also present in the region: *relationship failure* (v27) (χ^2 (1, N=66) = 3.667, p = .056), *positive construction of other* (v58) (χ^2 (1, N=66) = 2.970, p = .085) and *mixed feelings towards partner* (v71) (χ^2 (1, N=66) = 3.143, p = .076). Furthermore, this theme contains the majority of items which did not occur in simulated suicide notes at all such as: *date and signature of the writer* (v7), *difficult decision* (v18), *rejects future narrative* (v19), *addiction* (v29), *lonely* (v31), *watching over loved ones from the afterlife* (v36), *positive self* (v38), *regrets past* (v51), *expresses thanks* (v56), *mitigates others* (v60), as well as *no resentment* (v70).

Neutral theme

This region contains items that are used by both genuine and simulated suicide note writers. Five variables in this region achieved a chi-square value of .0 (χ^2 = .0) meaning that they occurred in genuine and simulated notes with the same frequency. The items are: *medical* (v25), *psychiatric* (v26), *effort* (v43), *time – focus on the longevity of problems* (v44) and *martyr* (v64). The region,

thence, includes items which focus on explaining the suicidal decision. It appears that non-suicidal individuals were able to imagine what kind of problems can lead to such extreme measures. The main focus, however, was on the suicidal person themselves and problems arising from within (e.g. medical problems, psychiatric disorder) rather than interpersonal issues. The theme also includes the variable *constrict* (v17) which appeared in 39.4% of all suicide notes. It may be argued, hence, that dichotomous thinking commonly experienced by suicidal persons is well understood and can be adopted by those who are not planning to kill themselves.

Smallest Space Analysis of Content Characteristics in Genuine Suicide Notes

Figure 2 shows the distribution of the 67 (Variables with a frequency of zero (0) were removed from the analysis) content and structure characteristics in 33 genuine suicide notes on the three-dimensional SSA. The coefficient of alienation of 0.15 indicates a very good fit of the spatial representation of the co-occurrences of these characteristics. As can be seen in Figure 2, visual examination of the SSA plot confirmed that genuine suicide notes can be best differentiated in terms of the writer's affect towards oneself and others as well as suicidal motivation. Four distinct regions or themes were identified: planned escape, negative affect & self-mitigation, positive affect & failed relationship and lack of self-acceptable.

At the core of the SSA are the items that were used in more than 45% of all genuine notes. These are: *apology* (48.5%), *leaving instructions* (45.5%), *expresses love* (45.5%), *constriction* (45.5%) and *positive construction of partner* (45.5%). To compare with the results from the previous Smallest Space Analysis performed on all suicide notes (Figure 1), most of the core variables are the same. Namely, the items that have recurred are *apology*, *positive partner* and *expresses love*.

This implies that the psychological core of suicide notes can be accessible to both suicidal and non-suicidal individuals. For a more definite assertion, however, an SSA on simulated suicide notes needs to be examined (see next section).

INSERT FIGURE 2 HERE

Planned Escape

Nine variables that exhibit a mature character of the notes form this region. Suicides in this theme are guided by medical problems, they seem to be well planned and intentional. Also, the notes have a more sophisticated linguistic structure (the use of metaphors). Altogether, it can be suggested that such notes could be expected from persons who choose to be euthanized.

Negative Affect and Self-Mitigation

This region is characterized by expressions of anger and self-justification as evidenced in variables such as *ideal* (v21), *positive self* (v38), *mitigates self* (v49), *negative other* (v59), *negative partner* (v62), *martyr* (v64), *sarcasm* (v65) and *anger* (v69). Writers who construct these notes appear resentful and blame others for their plight. Moreover, this conflict with others translates into psychological problems which may be the direct reason behind the decision to take one's own life (variable *psychiatric* (v26)). Interestingly, writers in this category refuse to take any blame for their failures. They adopt a stance of self-mitigation and positive self-

presentation. The notes may also be quite lengthy and detailed as they contain *relates events* (v42) and *escalation of events* (v67) variables.

Positive Affect and Failed Relationship

This region is also related to relationship failures, however, feelings towards others are much more positive. The notes sound very sentimental but at the same time contain many practical features. More specifically, items such as *memories* (v23), *watch over* (v36), *advice* (v39), *elaborate mental pain* (v41), *mitigates other* (v60), *mitigates partner* (v63), and *no resentment* (v70) are interwoven with *will and bequeaths* (v4) as well as *funeral instructions* (v2) (the variable *leaving instructions* (v5) which can be found at the core of the plot is placed closely to other items within this region). The theme, hence, incorporates notes which are left by individuals who may have suffered rejection or love failure, however, others are idealised rather than vilified.

Lack of Self-Acceptance

This theme, similar to the *negative affect and self-mitigation theme*, is characterised by predominantly negative emotions. However, here those antagonistic attitudes are directed towards self and the theme gives a general impression of writers' resignation. This pessimistic atmosphere is achieved by the use of items such as *rejects future narrative* (v19), *negative self* (v50), *injustice* (v52) or *reassures others that they will be easily forgotten* (v72). The reasons for suicide are largely unspecified (39.4%). Also, the occurrence of despondency implies that these notes tend to be short and curtailed. Overall, writers in this region construct notes which do not contain many specific details and tend to refer to themselves in negative terms.

Smallest Space Analysis of Content Characteristics in Simulated Suicide Notes

Figure 3 shows the distribution of the 53 (Variables with a frequency of zero (0) were removed from the analysis) content and structure characteristics in 33 simulated suicide notes on the two-dimensional SSA. The coefficient of alienation of 0.20 indicates a good fit of the spatial representation of the co-occurrences of these characteristics. As can be seen in Figure 3, visual examination of the SSA plot identified three regions/themes: escape, positive affect and self-blame and purposeless life.

At the core of the SSA are the items that were used in more than 35% of all simulated notes. These are: *unspecified* (48.5%), *apology* (42.4%), *positive partner* (39.4%) and *expresses love* (36.4%). The item *burden* which can also be found at the centre of the plot had a frequency of 24.2%. Its central position, however, reveals its close connection to the psychological core in false suicide notes. Importantly, variables *expresses love*, *positive partner* and *apology* were found at the core of all SSAs. It can be asserted, thence, that the three content variables constitute the psychological core of all suicide notes.

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INSERT FIGURE 3 HERE
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Escape

The 'escape' theme consists of items such as *escape* (v10), *autonomy* (v13), *constriction* (v17), *medical* (v25), *despondency* (v30) and *elaborate physical pain* (v45). The theme is similar to the

18

'planned escape' region found in genuine suicide notes, however, it contains less planning and rational thinking. These are not the notes written by people who suffer unbearable physical pain and consciously choose to die. Instead, the pain leads to the inability to see any alternative solutions and hence constriction. Interestingly, unsound thinking processes are interwoven with apparent rationality (autonomy variable). Also, suicide is not fully internalised as those writers embraced negative stereotypes associated with this method of death. Consequently, they saw themselves as weak individuals who were taking the easy way out (*negative norm* (v15) item).

Positive Affect and Self-Blame

This theme can be seen as a combination of 'positive affect and failed relationship' and 'lack of self-acceptance' themes found in genuine messages SSA. Suicide notes in this space were more likely to contain positive constructions of others (e.g. *memories* (v23), *reunion* (v35), *advice* (v39), *positive other* (v58), *mitigates partner* (v63)), justifications of the decision to die and apologies (e.g. *elaborate mental pain* (v41), *effort* (v43), *understand* (v55)) as well as negative references to self (e.g. *negative self* (v50), *martyr* (v64), *reassurance* (v72)).

Purposeless Life

The third theme, 'purposeless life', consists of items such as: *funeral* (v2), *leaves instructions* (v5), *lack of purpose* (v22), *psychiatric* (v26), *relationship* (v27), *humour* (v40), *injustice* (v52), *negative partner* (v62), *escalation of events* (v67), *anger* (v69). These writers referred to interpersonal problems and expressed anger towards their close ones but also left instructions to audience. In addition, they used humour as well as talked about injustice and the cruel world which made them sound cynical.

A comparison of this plot to the previous one on genuine notes indicates that the themes are not so distinct and comprehensive as with the genuine SSA. It seems that the regions are not consistent internally. To exemplify, rationality and loss of rational thinking ability intermingle in the 'escape' theme. Moreover, writers in the 'purposeless life' theme negatively present others, howbeit, they also leave instructions. Nevertheless, this incapacity to create psychologically coherent notes may be very telling of the writers' inability to understand the suicidal mind. Alternatively, this arrangement may be reflective of the stereotypical thinking of suicide as an action which lacks any logic.

DISCUSSION

The findings of the present research reveal that genuine and simulated suicide notes can be most reliably distinguished with the use of content variables, i.e. themes which construct the narratives. The themes are reflective of the psychological state of the writer and hence reveal how the suicidal mind functions.

The Suicide Note Genre

According to Giles [19], short, apologetic suicide notes are most easily forged. Moreover, the most common themes which constitute the "suicide note genre", i.e. the core of a suicide note, are: constriction, instructions, positive constructions of other, elaborate mental pain, autonomy and expressions of love. By the same token, Foster's [20] analysis revealed most universal variables to be apologies/shame, expressions of love, unbearable life, instructions, nothing to live for and advice. McClelland's [15] core themes were found to be blame negotiation (self-blame/

other-blame/ self-mitigation), causes of suicide, expressions of love, apologies, instructions, will, asking for forgiveness as well as thanking. Similarly, Langer et al. [3] maintain that a large number of suicide messages contains apologies and clauses indicative of the tunnel vision.

To recapitulate on the aforementioned points, variables found most frequently in real suicide notes are also expected to feature in fictitious notes as they are deemed to be universal and thus easily accessible to an everyman. Nevertheless, all the above studies were conducted on authentic suicide notes only and the claim was made without analysing the thematic structure of fabricated messages. Therefore, the present research was, among others, designed to test the hypothesis of the so-called "suicide note genre" as captured by Giles [19].

Smallest Space Analysis revealed that certain themes were used much more frequently than others by both authentic and fictitious suicide note writers. At the core of the SSA plot of all messages the following variables were identified: *apology*, *unspecified reasons for suicide*, *positive construction of partner* and *expressions of love*. The core central variables in the genuine notes SSA were found to be *apology*, *instructions*, *expressions of love*, *constriction* and *positive partner*. As for the core variables in the simulated notes SSA these were: *unspecified reasons*, *apology*, *positive partner* and *expressions of love*. Therefore, the variables *expressions of love*, *positive partner* and *apology* are the ones found at the core of all SSAs. It can be suggested, hence, that the three motives constitute the "suicide note genre" – which slightly reduces the number of variables of the psychological core presented in the previous studies.

Notwithstanding, Giles [19], Foster [20], Langer et al. [3] and McClelland's [15] results have been partly reaffirmed. Indeed, the researchers contend that most suicide notes are apologetic, include expressions of love and, as added by Giles (2007), expose positive constructions of others. Interestingly, leaving instructions [20, 19, 15] as well as constriction [19,3] are listed to be at the psychological epicentre of suicide notes, however, as established by the present study, the two variables are common but only among genuine messages. Even more, negotiations of blame, and specifically self-mitigation, [15] were used significantly more often by truly suicidal individuals. Arrestingly, the theme of constriction can be found in the 'neutral' region of the all notes SSA plot, which signifies that dichotomous pattern of thinking, described by Shneidman [7] to be a process that triggers suicidal act, is not exclusive to suicidal persons, yet it is not as ubiquitous as the variables found at the nucleus.

The 'neutral' theme may be seen as a psychological continuation of the "suicide note genre" in the sense that its themes can be imitated by individuals who do not intend to commit suicide. The space incorporates variables used with the same frequency in genuine and simulated notes. These are: *effort*, *martyr*, *medical*, *psychiatric* and *time*. Interestingly, problems stemming internally, i.e. medical or psychiatric, prove to be the ones that are most easily intuited by non-suicidal individuals. Additionally, Langer et al.'s [3] study findings expose the tendency of suicides to construct themselves as martyrs. The current research hints at the possibility that the propensity is not limited to the suicidal mind, but can be utilised as a method of self-presentation by "psychologically healthy" human beings as well.

Themes in Genuine and Simulated Suicide Notes

Smallest Space Analysis performed on genuine messages identified the following four themes: 'planned escape', 'negative affect and self-mitigation', 'positive affect and failed relationship' and 'lack of self-acceptance'. It was theorised that mental states that trigger suicidal ideation would be reflected in notes written by individuals who decide to kill themselves.

Indeed, constriction, as described by Shneidman [7], although found at the centre of the plot, is situated closest to the 'planned escape' region. Individuals who write such notes usually suffer from an incurable or untreatable medical condition which significantly undermines their quality of living. The notes have a positive overtone, reveal planning and the decision to die appears to be well thought out and mature. Most variables in the region had a low occurrence frequency, which may be explained by the fact that those individuals may be the ones who choose to be euthanized [28]. Consequently, notes written by such persons would not be classed as suicide messages. Two themes resembling the 'planned escape' region can be found in Jacobs' [18] classification. These are 'sorry illness notes' and 'not sorry illness notes'. In Giles' [19] typology this theme can be best compared to 'mental and physical health' with four factors being present in both types: *understand*, *escape*, *internalisation* and *medical*. However, Giles' theme is more diverse and contains more variables.

The 'negative affect and self-mitigation' theme is best characterised as an attack on others and the construction of self as a victim and martyr. Notes in this region confirm Drew's [17] stipulation that suicides tend to blame others for their plight. The theme is also consistent with one of Shneidman's [6] suicide categories 'excessive anger', which indicates unfulfilled need for

dominance and aggression. Again, one of Jacobs' [18] types, 'direct accusation notes', successfully reflects the negative affect captured by the current category. In addition, just as in Giles' [19] 'relational health and disputes', others are most likely to be vilified and the writer is sarcastic. In the present SSA plot, the variable *relationship* is included in the 'positive affect and failed relationship' region, however, it is placed on the border between the two themes, which suggests that the motive is likely to feature in both types of suicide notes.

The 'positive affect and failed relationship', theme is characterised by positive feelings towards others and the most prominent motive for suicide is a disturbed relationship. The region contains variables such as *funeral* as well as *will*, and the factor *instructions*, even though contained within the modulating facet, is placed closely to other variables in the region. This, in turn, renders the theme psychologically similar to the 'will and testament notes' described by Jacobs [18]. Shneidman [6] lists two types of suicide closely associated with relationship problems, which are: 'thwarted love and belonging' and 'failed relationship'. Additionally, some similarities can be spotted between the present region and Durkheim's [4] anomic suicide which, as explicated by the researcher, is triggered by overwhelming changes in one's life, e.g. the loss of a loved one.

Gergen and Gergen [29] propound that a successful progressive narrative must establish a goal-state, i.e. a destruction of the enemy. Surprisingly, in suicide notes, where the theme of destruction plays a leading role, such a progression is clearly visible. Indeed, the destruction of self amounts to the destruction of the worst enemy. This positive outcome does not seem to be thwarted in the eyes of suicides even by the imminent non-existence. The theme is most clearly

discernible in notes written by hopeless individuals who lack self-confidence as found in the 'lack of self-acceptance' region. Even more, processes deemed to trigger suicide ideation reflected in this theme are perturbation, inimicality as well as alexithymia [6,7]. Indeed, the notes are extremely fatalistic, writers seem to be depressed, hopeless and hostile towards themselves. The region also resembles Shneidman's [6] 'assaulted self-image' suicide type.

Importantly, the multivariate analysis of genuine suicide notes successfully grasps different mental processes deemed responsible for suicidal ideation, but at the same time supplements the current knowledge of how suicides think and construct their reality. To exemplify, it appears that constriction is most often used in connection with medical problems. Also, a correlation between the processes of perturbation as well as inimicality and negative self-image has been detected.

The SSA analysis on simulated suicide notes performed in order to understand the differences between the suicidal and non-suicidal mind, revealed three themes: 'escape', 'positive affect and self-blame' and 'purposeless life'. The simulated notes themes are not as internally consistent and comprehensible as the genuine suicide note types. Tuval-Mashiach et al. [30] contend that mental disturbances are revealed in the conflictive structure of personal narratives. According to the theory, therefore, fictitious suicide messages should emerge as more coherent and fluent. Nevertheless, just the opposite appears to be true which, yet again, points to the psychological and cognitive complexity of constructing high-stakes lies [31,10]. Additionally, less variables were used by non-suicidal writers, which is congruent with Zhou et al. [32] and Zhou et al.'s [33] argument that deceptive accounts are less diverse in content.

Indeed, fictitious note writers seemed confused about what they wished to express, which influenced the quality as well as length of their narratives. This is also reflected in the thematic distribution of simulated messages. The first theme 'escape', resembles the 'planned escape' region in genuine notes, however, less planning and more stereotypical thinking (variable *negative norm*) is involved. The 'positive affect and self-blame' theme combines positive constructions of others and negative self-image. In fact, this may appear to be an obvious and logical connection to non-suicidal individuals, howbeit, such a clear-cut association is not evident in genuine suicide notes. Quite surprisingly, the region corresponds with Durkheim's [4] altruistic suicide more than any of the reported genuine suicide note themes. Nonetheless, this finding should be further investigated in order to account for any possible gender and age differences. Finally, the 'purposeless life' theme incorporates such variables as *leaving instructions*, *anger towards others* and *negative constructions of partner*. In contrast, in genuine suicide messages *leaving instructions* and *will* variables are strongly linked with positive affect.

It can be argued that the lack of consistency in fabricated accounts is very telling of how "psychologically healthy" individuals construct suicide. More specifically, the stereotypical image of the suicidal mind as unsound or broken may suggest that a product of such a mind must be internally flawed too [34]. Another explanation may be found in the area of psychological phenomenology whose main assumption is that subjective experience cannot be grasped by an onlooker [21-23] – hence the discrepancies between genuine and simulated suicide notes.

The above findings have both significant theoretical implications in our understanding of how suicidal ideation affects cognitive processing and therefore language as well as practical implications both for clinical settings with suicide survivors and for police investigations such as

in cases of equivocal deaths. Some alleged suicide victims could in reality be murder victims; in such cases distinguishing between real and fake suicide notes could be of great importance. While this may be a bold statement especially in cases where a murderer whose cognitive energy may be close to that of a suicidal individual [11], forges a suicide note there may be cases where the victim is forced to write their own suicide note (of interest here is the case REGINA v GILFOYLE, [35]).

Nevertheless, in the light of the contradictory results of various studies, further research with the use of more varied samples is imperative. Findings in the present study require replication with the use of a more representative, larger and more recent sample. Further study would also need to study the differences between messages written by males and females. Indeed, the present research established the importance of the influence of social narratives on the structure of personal accounts and, it may be argued, gender differences are crucial as far as shared meanings and social expectations are concerned. Further, it would be very interesting to look at messages written by individuals who choose to be euthanized and compare them with notes written by suicides. Finally, it is recommended that research on suicide notes is combined with different approaches to psychological autopsy in order to obtain a clearer picture of the suicidal mind.

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Variable Content Dictionary (Giles, 2007)

CONTENT

Practical Features of the Notes
1. **idnok** – identify next of kin or official contact
2. **funeral** – writer gives instructions as to their funeral and/or what to do with their body
3. **discover** – writer warns addressees in order to protect them from discovering the deceased
4. **will** – writer leaves financial instructions and bequeaths
5. **instruct** – instructions to others, often of emotional nature
6. **care*** – writer leaves assurances of (financial) care or asks for help/support for someone else

Constructing Suicide and the Decision to Die
7. **date** – note dated and signed
8. **asks** – suicide asks their audience questions
9. **ambiv** – the decision to die seems transient and ambivalent
10. **escape** – writer treats suicide as a form of escape from life, pain etc.
11. **method** – writer mentions how suicide will be committed
12. **preatt** – writer mentions previous suicide attempts
13. **autonomy** – writer specifies that the decision to take their life was made autonomously and there was no third party involvement
14. **plan** – writer makes an indication that he planned the suicide or considered it for a long time
15. **negnorm** – author reveals stereotypical thinking about suicide
16. **conceal** – writer asks addressee to conceal from others that they killed themselves
17. **constrict** – the language of constriction present in the note, suicide constructed as the only solution
18. **difficult** – the decision to take one's own life is constructed as extremely difficult or even frightening
19. **rejects** – author rejects future narrative, continuation of present circumstances
20. **avoid** – references to future events that the writer wishes to escape
21. **ideal** – writer offers an ideal solution to their plight but they see it as unattainable
22. **purpose** – writer indicates their life is purposeless
23. **memories*** – writer invokes shared memories or refers to past conversations
24. **solution*** – writer wishes there was a different solution

Constructing Explanation for Suicide
25. **medical** – writer mentions medical problems
26. **psychiatric** – psychological/psychiatric problems or an internal struggle
27. **relation** – writer refers to a relationship failure or problems
28. **finance** – author mentions financial problems
29. **addict** – suicide mentions an alcohol or drug addiction
30. **despond** – a general comment about despondency or intolerance, specific details not given
31. **lonely** – writer feels lonely or isolated
32. **unspecified** – writer does not explain why they want to commit suicide

33. **other** – other reasons for suicide given

Constructing Self
34. **intern** – writer fully accepts the decision to die and offers some positive reflections
35. **reunion** – writer talks about being rejoined with the loved ones in the afterlife
36. **watch** – writer asserts that he will watch over his loved ones after death
37. **posterity** – writer asks to be remembered
38. **posself** – writer constructs a positive image of himself
39. **advice** – writer gives advice
40. **humour** – writer uses humour or jokes
41. **elabmen** – suicide refers to unbearable psychological pain, coded as despondency when notes are short
42. **events** – author relates events which led them to suicide
43. **effort** – writer implies that he tried to persevere
44. **time** – writer focuses on the temporal dimension of their problems, implies longevity
45. **elabphy** – writer describes elaborate physical pain
46. **qualify** – suicide includes professional opinions
47. **burden** – writer thinks he has been or would be a burden to his loved ones
48. **elablove** – elaborate love, failed relationship presented as the reason that led the writer to suicide
49. **mitself** – author mitigates his blame
50. **negself** – writer presents himself in a negative light
51. **regret** – writer regrets the past
52. **injustice** – writer makes a comment about the cruel world, implies that he cannot stand life any longer or uses words such as life, fate, destiny, world

Constructing Others
53. **explove** – writer expresses love for his audience (does not include common salutations and when used to explain suicide – as in elaborate love)
54. **apology** – writer apologises or asks for forgiveness
55. **understand** – writer asks recipient to understand their decision
56. **thanks** – writer expresses thanks
57. **noblame** – writer asks audience not to be sad or blame themselves
58. **posother** – writer positively constructs others (not partner)
59. **negother** – writer negatively constructs others (not partner), refers to their failures
60. **mitother** – writer does not want his audience to feel guilty and hence offers an explanation for their actions
61. **pospart** – writer positively constructs his partner
62. **negpart** – negative constructions of partner
63. **mitpart** – writer tries to diffuse any blame felt by partner
64. **martyr** – writer present himself as a martyr whose death will be benefiting others
65. **sarcasm** – author uses sarcastic or ironic comments
66. **bye** – writer says goodbye to his audience
67. **escalation** – writer refers to a recent escalation of events which have led them to suicide
68. **mad*** – writer asks recipient not to be angry/mad/think badly of them
69. **anger*** – writer expresses anger, accuses others or the note has a negative overtone

70. **noresent*** – writer holds no resentment towards others or forgives others for what they have done

71. **mixed*** – writer expresses mixed feelings towards partner, i.e. they are constructed both positively and negatively

72. **reassurance*** – writer reassures others that they will soon forget about what happened or get over it

STRUCTURE

73. **metaphor*** – writer uses metaphors

74. **abstrac**t* – writer refers to unidentified others/things, uses words such as everything, something

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* Items added to the content dictionary by the present authors

Figure 1: Two-dimensional Smallest Space Analysis (SSA) plot of 74 content and structure characteristics in 66 genuine and simulated suicide notes (coefficient of alienation= 0.22)
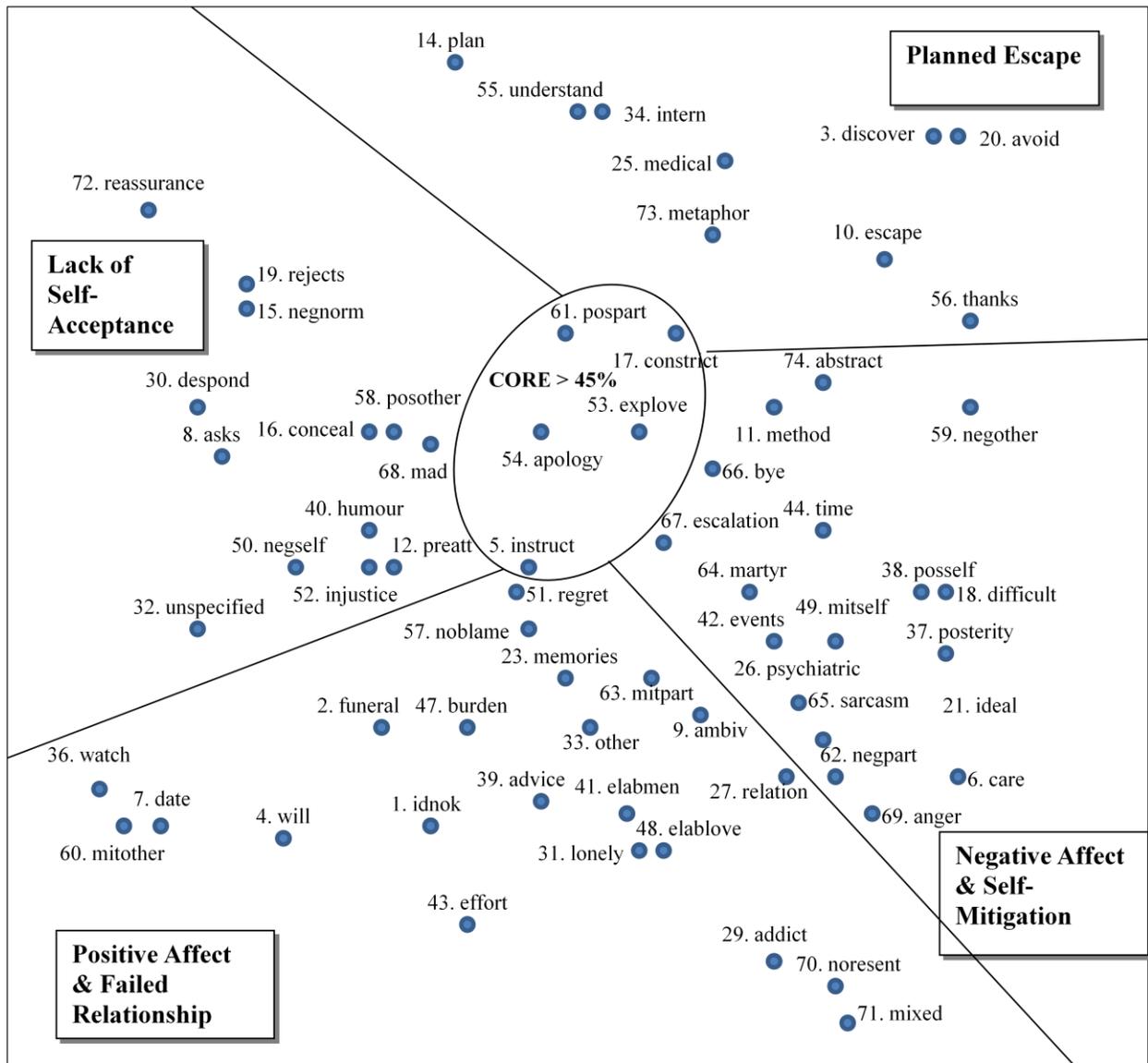
Figure 2: Three-dimensional Smallest Space Analysis (SSA) plot of 67 content and structure characteristics in 33 genuine suicide notes (coefficient of alienation= 0.15)
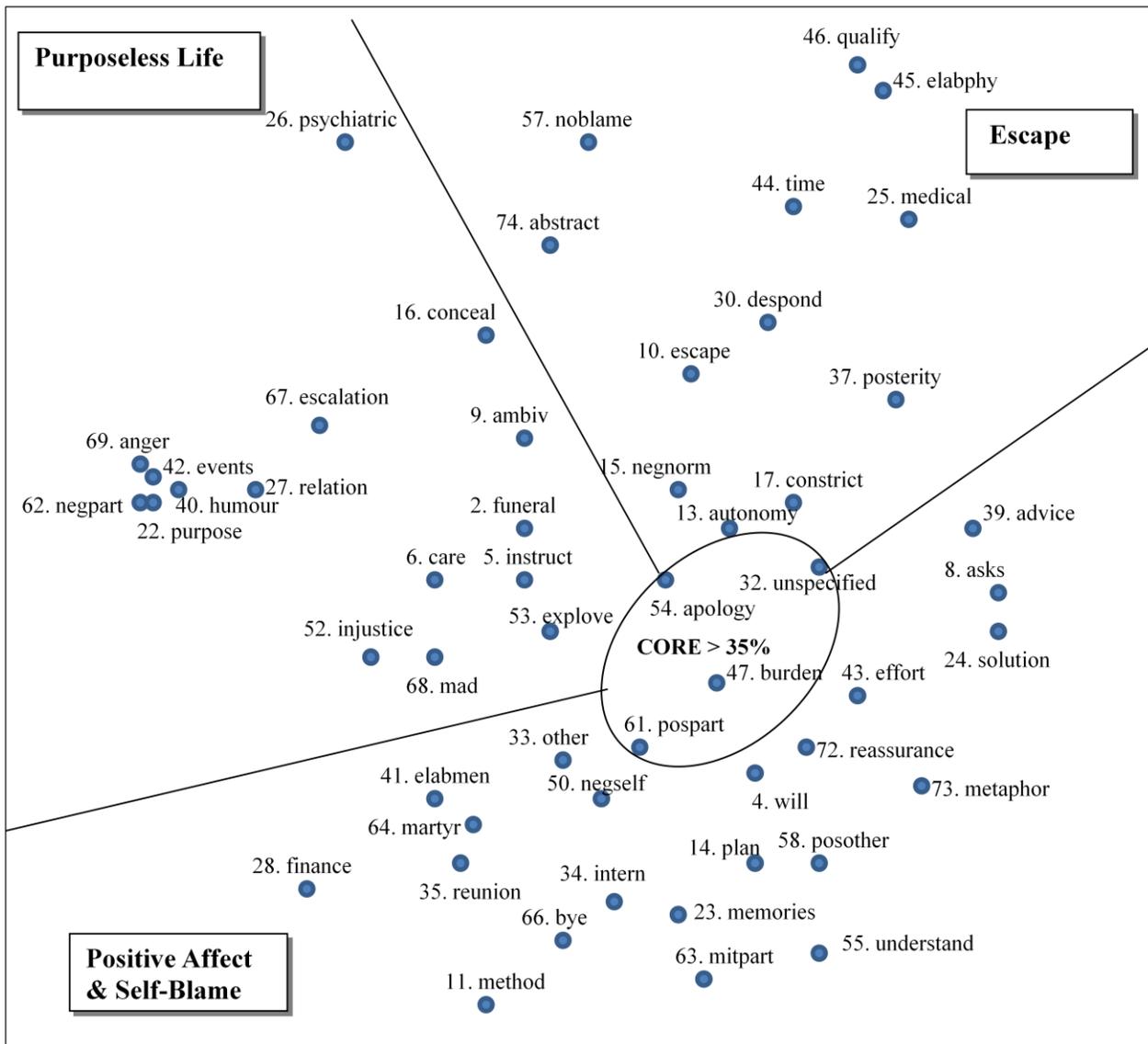
Figure 3: Two-dimensional Smallest Space Analysis (SSA) plot of 53 content and structure characteristics in 33 simulated suicide notes (coefficient of alienation= 0.20)