

Paper to be presented at SCARR conference on Managing the Social Impacts of Change from a Risk Perspective, jointly organized with CASS, Beijing Normal University, ESRC, RCUK, University of Kent, at the Beijing Normal University, Beijing, China 15-17 April 2009

## **Aintegration in Management of Personal and Work-Organizational Conflicting Situations in Modern Society**

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### **Abstract**

This paper seeks to introduce the concept of aintegration and focus on its relevancy in coping with complex, uncertain, potentially distressing and risky situations. In that sense aintegration may be conceived as a preventive as well as coping ability in such situations. Aintegration, is conceived as a person's ability to feel well and not stressed, without necessarily having integrated various human, possibly contrasting cognitive or emotional entities. It represents a level of mental organizational complexity in an individual's manner of perception and epistemological schema. Aintegration entails the ability to bear inconsistencies, relativism, discontinuity, paradox, ambivalence, ambiguity and contradictions. The concept will be related to unresolved questions and challenges in various domains in the social sciences as well as in contemporary society and culture. After defining the concept we will present the construction of a research tool measuring aintegration, followed by reliability and validating data and by 4 studies presenting preliminary research findings all indicating the coping impact of aintegration on cogent personal, social and cultural risk- involving domains, such as complex personal and organizational/work environments as well negative life events, the Holocaust and posttraumatic coping. The discussion will address further implications regarding the concept of aintegration and its findings.

## **Introduction**

Risk management is a vast theme under the umbrella of which we are able to locate diverse issues, as the papers in this conference testify. Our focus will be on the risk management of the individual in postmodern society: On the person who finds himself in complex work environments, circumstances of high mental risk, or having experienced negative life events or severe trauma. who finds himself in seemingly irresolvable predicaments and yet reveals manners of coping which minimize his distress and promote his adjustment and well being. And the question confronting us is how do we comprehend, in a psychological perspective his manner of coping and minimizing risks? To deal with this question we propose the concept of *aintegration* briefly defined as the human ability to bear cognitive and emotional complexity manifested in the ability to live with inconsistencies, discontinuities, contradictions and paradox and yet not experience conflict, stress strain or discomfort. Coping with complex, uncertain, potentially distressing and

risky situations, aintegration may be conceived as a preventive as well as a coping ability in such situations. We will first present the background to the concept of aintegration as it appears in some cogent areas in psychology as well as in everyday live in society and culture. This will be followed by defining and then presenting the construction of a questionnaire eliciting and measuring aintegration it's reliability and validity after which research results in four relevant studies will be presented and implications discussed.

## **Implications of Modernity in Science and Life**

Science has benefited hundreds of years from the canonic scientific theories it constructed. However, during the last century, major processes have occurred which could be labeled as "revolutions" in science (Kuhn 1965). In light of these one could say that "... the twentieth-century science will be remembered for just three things: relativity, quantum mechanics and chaos. .... Relativity - eliminated the Newtonian illusion of absolute space and time; quantum theory eliminated the Newtonian dream of a controllable measurement process; and chaos eliminates the Laplacian fantasy of deterministic predictability (p.6. Gleick, 1988)." The educated layman understands today that the same phenomena (light) can be explained by what was previously unaccepted, debated and conceived contradictory; a dual, wave-particle, quantum theory. How does he now relate to phenomena and science which were based upon; simplicity and Aristotelian logic; that A cannot be non-A? In fact, consequently the cannons of science are changing as we witness today a focus on different cornerstones to science which advance theories such as, e.g., complexity, chaos, system modeling and nonlinear dynamics. Butz, (1997) promoting complexity theory argues for a paradigmatic change in psychology due also to societal and cultural changes in the postmodern era.

"**Modernity**" (Giddens, 1991) signifies the globalizing impact of modern institutions on social life behavior, representing cultural drastic changes. It has led to increasing possibilities as well as constrictions and blockings; increased transitional situations, complex technology, complex work-systems, increased diversity and rate of change and complexity in decision making and lifestyles. These often leave the individual bewildered and helpless. We have to ask: Do these scientific, individual, social and cultural changes find sufficient expression in contemporary social sciences and psychological theories, paradigms and experimentation? We argue that far from it.

Focusing our attention on coping modes and processes such as those dealing with uncertainty, threatening situations, inextricable stress and existential incompatibilities, we ask: What do psychological theories offer for such circumstances? Surveying theories of adjustment, conflict resolution and coping, it seems that their basis and paradigms rest on; integration, balance,

congruence, linearity and rationality. Problem solving proceeds in a manner that the cause or motive to a conflict is modified or eliminated. However, such "solutions" are not always possible or suffice. In fact some of the major psychological theories have questioned such conceptualizations, offered necessary modification or still await them. These issues are reflected in some of the major features of modern life as well as in some of the major fields of psychology. They may also be conceived as basic elements and resources to the concept of aintegration. We outline these issues in some of the following fields:

**(1) Social Psychology:** The principles of consistency and balance, as defining concepts underlying major theories, have played a constituting and paradigmatic role in social psychology: (a) Classical theories have conceptualized a consistency motive as a drive toward psychological balance which, due to contrasting values, attitudes, positions or behaviors, can become imbalanced producing inconsistencies, discomfort and stress in response to which persons will produce modified congruent cognitions, emotions and behaviors, reducing such conflict and stress (Heider, 1958). (b) A great deal of research (e.g., Festinger, 1957; Abelson, 1968) has provided conformation to such theories (the major well known one is the "cognitive dissonance" paradigm) but also important disconfirming results, failed replication studies and criticism have all been presented (e.g., Cialdini, et al, 1995; Harvey., Ickes., & Kidd, 1976, 1978, 1981). (c) Important criticism and theoretical elaborations explaining disconfirming research results can be found in the work of Kruglanski (2004) revealing that the extent that people will behave according to inferred predictions of consistency theories depends on mediating personality variables, such as the need for structure and preference, or no preference, for consistency and individual differences (Neuberg, Judice & West.1997; Webster, & Kruglanski, 1994). So perhaps we don't always solve problems according to principles of consistency? Criticism has also been raised regarding the definitions of consistency or inconsistency as well to the issue that these theories stress rationality and neglect emotionality and personality traits. High preference for consistency indicates the need for closer (similar to "structure") and cognitive rigidity (Cialdini, Trost & Newsom, 1995). We deem tolerance for ambiguity (Furnham & Ribchester, 1995) and its underlying related qualities, such as ; need for complete order, structure, constricted judgment and decision making, dogmatism and authoritism (Webster & Krukglanski, 1994), as further relevant personality traits perhaps also related to degrees of aintegration. However, our interest, in light of aintegration, continues to reside in the question: what further characterizes subjects who do not perform according to balance and dissonance theories?: The many people upon whom the cognitive dissonance theory did not work?

**(2) Personality and Clinical Psychology:** Conceptualizations of the Self include increased complexities in *self identity* (Baumeister, 1998) While in the past the self has been conceptualized as a coherent, consistent and stable phenomenon (eg., McDougal, 1921), presently, the individual is required to include, multidimensional ties, inconsistencies and complexity in his self perception (Linville, 1987). A more complex Self contains more differentiated self-aspects, therefore when disappointments, frustrations or trauma strike, the relevant self-aspects are affected but various other aspects are not. Such a conceptualization may also be relevant to aintegration. High self complexity promotes better coping with stressful life situations (Koch & Shepperd, 2004). However, adopting such a self, may be difficult for people who display a need for structure, consistency, order and coherence (Neuberg & Newsom, 1993).

*In clinical theorizing* the **concept of paradox** receives growing attention 2 ( e.g; Vaillant, 1993). Winnicott (1971) makes a plea for accepting, tolerating and respecting paradox. Kumin (1978), like the NeoPiagetians, regards the acceptance of paradox as a higher developmental function. Aron (1995) states that "While people certainly need a cohesive and integrated Self, they also need to accept, tolerate and even enjoy confusion, contradiction, flux, lack of integration and even chaos in their sense of who they are" (p.203). In fact, Pizer (1998) has conceptualized the project of psychoanalysis in paradoxical terms.

To relate to the **concept of paradox** beyond pure clinical theorizing: Paradoxical situations, in which contrasting factors exist simultaneously, usually make us feel somewhat apprehensive since they disregard the conventional logic by which we understand the world (Hatch & Ehrlich, 1993). However, presently one can speak of the field of "**paradoxical thinking**," which promotes the acceptance and comprehension of paradoxical situations (e.g., Fiedler, et al 2003) All these provide a further basis to the concept of aintegration.

**(3) Cognitive psychology:** Cognitive and developmental theoreticians have articulated cognitive development in adulthood and devised models of **adult cognition** (e.g., Arlin, 1975; Kegan, 1998; Sinnott, 1998).

Kramer (1983) investigated three *adult, world-view* thought processes: absolute, relativistic and dialectical, concluding that "Relativistic and dialectic thought is believed to be more pragmatic in nature, as there is greater acceptance of life as it is, with all its contradictions" (p.97). Rybash, Hoyer & Roodin (1986) formulated "contextualism" where one "creates new principles based on the changing circumstances of life, rather than search for absolute universal principles that apply across all contexts and circumstances" (p. 39). In a contextualist or relativistic world view statements of conflicts could be comprehended with no corresponding attempt at integration

(Kramer & Woodruff, 1986). Sinnot (1998) presented the ability of adults to perceive multi-possibilities to problem solving and obtain synthesis which includes contradictions.

We wish, however to emphasize *post-formal thinking*, which has been conceptualized as a higher order of dialectical operations, as a higher, post-Piaget order, which is more pronounced in adults, enabling them to synthesize life experiences and absorb contradictions. (Perry, 1970; Riegel (1973)

*Post-formal thinking* maintains that in later adulthood certain cognitive abilities have actually been expanded and new modes of thinking established: As we age we don't necessarily attribute to principles of logic the major supremacy and may turn away from the purely analytic approach towards a more open, relative wiser, dialectic mode of understanding enabling us to integrate complexities (Suedfeld, 1998), to explore new options and reject absolutism. The ability of adults and aged to use formal reasoning is not given up, but they acquire new abilities to deal with the more complex and often contradictory realities. The more intricate problems that make up the issues of adulthood and aging do not always have a single and simple solution. You might be able to make the best decision about what kind of refrigerator you will buy using formal, logical thought processes. But such forms of logic will not always be as helpful in making decisions whether to end a marriage, change your profession, when to retire, or move to another city. These may demand different kinds of thinking including: relativistic operations, recognizing the absurd, the considerations of even unclear options, seeking "mindfulness," recognizing that different and alternative solutions are possible, (Langer, 1989) and observe old problems in a new light. These approaches increasingly focus on the stages of adulthood revealing that (Kramer, 1983): (1) adult cognition reaches a further stage by the use of dialectics; (2) there is an acknowledgment of the relativistic, non-absolute nature of knowledge; (3) there is an acceptance of contradictions, even paradox and the absurd, in the thinking process; and (4) contradictions **may or may not be** integrated into novel constructions.

Sinnot (1998) also emphasized **the creative component** in postformal thinking and presented data showing how postformal thought, is a major component in adult creativity. He emphasized the similarities between creativity and postformal thinking: Both require, between others; the distancing of the familiar, tolerance of ambiguity and anxiety, as well as openness for new options, flexibility, holding contrasts and perceiving different perspectives. Sinnot claims that creativity in adults is also expressed in daily living and in areas such as; interpersonal relationships, family problems, the workplace, cross-cultural understandings and of course in works of art.

It should be emphasized that the dialectical "fifth" or "final" stage of adult thinking does not eliminate Piaget's cognitive theory or replace the previous stages of formal operations and linear causality. A mechanistic world view is basically integrative; it relies on formal operational thinking and on linear causality, consistent with Aristotle's logic. The principles of post-formal thought or aintegration would not square with such a scheme. Post-formal thinking provides a sound basis upon which to further advance the concept of aintegration.

**(4) Adult developmental theories:** Erikson presents to us problematic conceptualizations. The last stage, of his ego developmental eight life stages, "integration versus despair", characterizes old age in which a condition for successful aging requires an "*acceptance of one's one and only life cycle and of the people who have become significant to it as something that had to be and that, by necessity, permitted of no substitutions*" (Erikson, 1968, p. 139). Could such a formulated requirement be a condition for all human beings whatever their experience? or despite it? Clayton (1975) argues that rather than expect complete resolution of crises as the norm, it is more realistic to see individuals as "compromising" their way through the various crises. We have seen (Lomranz, 2002) in many life-reviews produced by elderly that they live with deep regrets about decisions they made in their past lives as to career, choice of spouse, immigrations or other cogent issues, stating that if they had a "second change" they would make different choices. They however, did suffer despair or depression on that account. Many adult people conceive aging as an enigma, terming it "paradox" (Karp 1988) and experiencing unresolved contradictions between how they feel about themselves, their bodies and how they appear to others. Such inconsistencies, reflecting asynchronization, between body and mind, wish and its fulfillment, motivations and their realizations, may produce disappointments with which people can live with satisfactorily and without them having a detrimental impact on the formation of the their Self's or their well-being. Baltes (1987) claims that adult development should be perceived as non-linear in which continuous and discontinuous processes are necessary. To us "integration" does not indicate necessarily successful aging as has been so often claimed in the literature on adult development. Furthermore; perhaps positive adult development should include factors which exists as *not integrated* in a wholly personality structure or in ones perception of past and present events and experiences.

**(4) Posttraumatic Coping** has become a major issue in recent years. As of now, we do not yet fully understand what explains the fact that only a minority of people experiencing severe trauma are affected and suffer from post traumatic symptoms. The conceptualized recovery process from traumatic events has not reached consensus: While many researchers and clinicians based recovery on personality integration (Herman, 1992), others have elaborated how integration of severe trauma is impossible for the victim (Krystal, 1988), many attribute survival to the fact of finding

meaning (Frankl, V.; Janoff-Bulman and Frantz, 1997), but very often survivors of disasters, when queried about meaning resorted to notions such as chance, luck, paradox or deny possible meaning whatsoever. (Lomranz, 1995).

Still others, more recently, have emphasized posttraumatic growth, gains and "benefit finding", but here too explanatory models are diverse (Tedeschi & Calhoun, 2007). The literature on posttraumatic "growth" is controversial, questioning its real or illusionary quality (Sumalla, Ocho & Blanco, 2009). The concept of meaning () is cardinal in our understanding of adaptation and growth following threatening events and trauma.

Investigations in the notion of "trauma resilience" (Bonanno, Galea, Bucciarelli, & Vlahov, 2006) resulted in findings indicating certain traits and abilities conducive to posttraumatic adaptation and growth. These include: flexibility, tolerance for ambivalence and ambiguity (Connor & Davidson, 2003), the ability to contain and hold positive and negative feeling simultaneously, holding to pessimistic and optimistic attitudes simultaneously while coping with illness (Benyamini, 2005), identifying the positive as well as the negative in traumatic experience as in wars (Davison, Pless, Gugliucci, King, Salgado, Spiro & Bachrach, 2006), recognizing positive as well as negative aspects of a traumatic event, attributing unconventional meanings to negative events, feeling at ease with complex situations and the unknown (Block & Kremen, 1996) and the ability to engage engaging in cognitive complex operations (Suedfeld, Fell & Krell, 1998). We note that such abilities are similar, among others, to those we characterize in aintegration.

A note on **Holocaust survivors**: The question how Holocaust survivors can live an adjusted life despite their horrible past, having experienced extreme pain, dread and horror, persisting in their memory till today, has intrigued many researchers. While a more inclusive concept of mental health has recently be applied to research on Holocaust survivor (Nadler, 2001), the psychopathological paradigm is still dominant in research and treatment here (Lomranz, 2001; in press).

We contend that the "clinical" coping explanations are not representative of the majority of the victims, certainly not those who reveal growth and self-actualization (Harvey & Miller, (2000). Most survivors, we maintain, are able to live *consciously and paradoxically* in different worlds (Nisman, 1995) as will be investigated below, but the question remains; what coping modes may account for the successful coping of posttraumatic persons?

**Up to this point we dwelled** upon cogent psychological fields, emphasizing in them insufficient explanations, blocks to integration and traditional logic, irresolvable predicaments and

the necessity to refer to concepts such as; complexity, paradox, inconsistency, structure, adult cognitive thinking, etc. These, we claim also constitute resources and present an underlying basis to aintegration. We now turn our attention briefly to the social/cultural scene in which *we find similar factors operating*.

**Modernity** (Giddens, 1991) while resulting in many positive social/cultural gains, has also produced many potential destructive situations rendering the individual as helpless, conceiving his well-being in a context of adversity and a hostile world (Shmotkin, 2000). Such predicaments can be understood in light of the effects of modernity, the degree to which it undercuts traditional thinking, habits and behaviors, radically alters the nature of daily life and effects the most personal aspects of our experience. Some major aspects of modernity's social impact

Major resultants produced by modernity are **Existential Incompatibilities**. The observer of modern life soon realizes that many realms of human existence are infused with complexity and unsolvable predicaments. Societies and social organizations usually seek stability, continuity and harmony but modernity has grown disharmonic roots which prevent such continuities and often situate the individual facing situations in which conflict, collisions and an inability to produce desired change are built-in. It is not surprising then, that presently many people may experience in daily life; inconsistencies, paradox, asynchronization, disharmony, irrationality and helplessness. To illustrate some major cogent states.

A major question to be asked is: **How congruent are living processes and cultural changes in modern society?** Modern social structures are often in discord with the needs of the population and render an increasing numbers of people's existence as living in stressful, unsolvable situations and culturally disenfranchised (Bell, 1999). Riley, Kahn and Foner (1994) refer to phenomena of "structural lag," stating that: "There is a mismatch or imbalance between the transformation of the aging process from birth to death and the role opportunities or places in the social structure that could foster and reward people at the various stages of their lives. While the twentieth century has experienced a revolution in human development, there has been no comparable revolution in the role structures of society to keep pace with the ways people grow up" (p. 16). The "goodness of fit" (Kahn, 1994) between individual needs, aspirations and abilities on the one hand, and the expectations and opportunities provided by the social structure, on the other, is seriously distorted. Hazan (1994) emphasizes the tensions and paradoxes emanating from irreconcilable tensions between peoples' own will and desires, and the facilities offered to them. The far reaching implications of modernity and processes such, immigration, multiple career lines, dislocation, up-

rootedness and eruptions in personal and national identity, may leave people mental and health risks, with a sense of incompatibility, experiencing cognitive and emotional frustrations and irresolvable incongruities.

**The nature of work in technological and industrial environments** (McGinn, 1991) represents another illustration. Contemporary social and work life is characterized by profound processes of reorganization of time and space. Interpersonal relationships and working locations intersect, cross and transgress time zones and geographies. The unclear limits of work hours, changing locations, travelling, etc. are all not conducive to emotional balance, personal, family and social lifestyles (Eshet, 2007). Modernity requires functioning in complex work environments which require multitasking or working on multi projects simultaneously (Patanakul & Milosevic, 2008). Work often necessitates divided attention and creative thinking (Butz, 1997) otherwise potential risks are inherent in work situations. Therefore, perhaps, harnessing complexity (Axelrod & Cohen, 2000) in organizational developments has become a preferred mode of operation and managers have found the need to use "paradoxical thinking". The study of complex systems, non-linear processes and complexity theory represents a challenge to classical parsimonies science (Butz, 1997; Goldrat, 1997) and perhaps demands a paradigmatic change.

We should not conclude this introduction disregarding **the scientific roots in Philosophy and Epistemology**: Philosophies guide epistemology which in turn may determine methodology. The above discussed issues were only examples with which traditional scientific efforts, based on concepts and principles such as; integration, homeostasis, balance, parsimony, simplicity, coherence, continuity, linearity congruency, balance, unity and consistency - do not seem sufficient and satisfying. Such principles were derived from major traditional philosophies such as those of Aristotle, Francis Bacon, Descartes, Hume and Karl Popper. Western society is however witnessing different philosophies in light of contemporary culture. These seem to be explicated in **existentialism and postmodernism**. Just to note those basic principles also relevant to aintegration: **In Existentialism**: Being is inseparably bound up with contrasting elements (Heidegger, 1962). Existential philosophers such as Kierkegaard (1957) and Sartre (1943) conceive contradictions and dialectics as being inherent to human existence. The problem of meaning-finding is defined as how to find meaning in a meaningless world. Camus finds meaning in rebelling against the "absurd," nihilistic condition of life. Existence therefore inevitably involves a sense of paradox and the absurd. Indeed, Nagel (1992) explains that "the absurd is a way of perceiving our true situation ... it results from the ability to understand our human limitations " (p.388). Nagel's approach and the above outlined concepts reveal their affinity to aintegration.

**Postmodernism** reflects loss of faith in unified rational systems, in religion and in science. Some major themes in their discourse include; Radical subjectivity and cultural criticism, a focus on: Construction and deconstruction, on personal meaning and on the narrative as an evolving process, on the unrelated, on fragments and parts, on discontinuity and multiple points of view and interpretations, on the non-linear, the un-congruent and the momentary nature of experience (e.g., Derrida, 1976; Jameson, 1984; Lyotard, 1988). Postmodernism emphasizes the inevitability of differences, doubts the utility of consensus and of completeness, rejects the hegemony, of absolute "truth, and "totality", disqualifies of the pursuit of wholeness. Instead of that; Both, Existentialism and Postmodernism emphasizes man's stance in light of social change, disarray, discontinuities. Many of the mentioned characteristics of the two philosophies can be found in the definition of aintegration and its principles.

To conclude: The challenges of modernity pertain to science as well as social living but have not sufficiently been dealt with in mainstream of the social sciences. The individual's necessity to live with paradox, inconsistency, contrasts, discontinuity, incongruence, ambivalence, ambiguity, complexities, the illogical, and the frustrating unchangeable – are all contemporary factors deserving major focus in the social sciences (Gergen, 2001). We agree that these challenges necessitate breaking "... the barriers of common sense by offering new forms of theory, of interpretation of intelligibility..... to unseat conventional thought and thereby to open new alternatives for thought and action" (Gergen 1999). We attempt to contribute to some of the mentioned challenges by supplementing existing theory and research with concept of aintegration .

**The definition of aintegration:** Expanding the above stated, aintegration is defined as a generic concept, a mental process and a resultant state. It represents a level of mental organizational complexity in an individual's epistemological being. This personal capability may assist the individual in dealing with intrapsychic and interpersonal, external complex situations in one's ever changing environment.

Aintegration should be conceived as a person's ability to feel well without necessarily having integrated all the various human bio-psycho-social levels, or certain entities within each level (e.g., cognition, values or affect), into one integrative schemata. It enables one to cope not by manipulating incompatible entities of content and essence but by consciously living with such entities, permitting them to coexist, accepting them while preserving well-being or integrity. It enables a person to contain and experience a possible sense of; inconsistency, contradictions, discontinuity, relativism, complexity, asynchronization, ambivalence, ambiguity, absurdity and paradox. An individual may consciously experience thoughts, emotions, events and behaviors

which seem contradictory in personal, value or cultural terms and yet be in a state of equilibrium, without feeling a need for a change in his state of mind.

Generic by definition, aintegration should be cognitively conceived in the Neo-Piagetian, post-formal framework and usually characterized by awareness but not requiring "higher" mental functions or education. As affect, it presents an ability to contain contradictory feelings and withstand emotional strain while recognizing the impact of emotional pressure. As an attitude it is part of a world-view, and as such it stands near postmodernism and is closer to European existential philosophy, than to American individuality and pragmatism.

Ingrained in a certain image of man (Lomranz, 1998), aintegration rests on human strength and salutogenesis (Antonovsky, 1987), carries a social evaluative component of freedom, democracy and uniqueness amongst diversity and connotes a person's stance in the face of individual and social turbulence, stress and unsolvable predicaments. It presents the mental complexity by which the existential demands on adults are coped with and mediates between epistemology and ontology in the personal, social and cultural spheres.

On a functional level we conceive the **operational characteristics** of aintegration as the following:

(1) Rejection of Aristotelian logic as absolute; (2) the ability to contain complexity and contradictions in one's Self schemata; (3) the capacity for post-formal, dialectic thought operations; (4) the ability to comprehend contradictions and relativism; (5) the emotional quality of sustaining ambivalence; (6) the ability to sustain ambiguity and uncertainty; (7) the ability to sustain complexity; (8) the ability to comprehend paradox; (9) the ability to step out of double bind situations; (10) the use of internal, rather than external, sources for meaning-making; (11) The use of balanced world-views and value positions, acceptance of the multiplicity of perspectives and the multi-dimensional aspects of reality - while recognizing the complex relationship between these.

Aintegration affirms all the above which at the same time should not cause discomfort but preserve wellbeing and a sense of integrity. These characteristics guided the operationalization and construction of a research tool measuring aintegration (Lomranz, 1998).

### **Constructing tools Measuring Aintegration.**

We have constructed a number of measurement methods, the main one a questionnaire presented here. The questions are devised so as to capture the 11 functional criteria presented above related above. This questionnaire is the major tool being used in an extensive ongoing project on aintegration at the Tel Aviv University.

The Questionnaire consists of 14 statements presented as contrapositions regarding various areas, e.g., towards; opposed drives, rationality, couple relationships, treating Alzheimer patients, aging, love relationships, effects of negative events, contrast in the self-schema, masculinity and femininity, continuity or discontinuity, judgment in light ambiguity and complexity. Relating to each area the subject is asked to respond to 4 questions. 2 questions, are formulated in general terms and the other 2 in personal terms (see below). Each response is given on a 5 point Likert scale. 3 kinds of scores are obtained (1) A general aintegration score (AG) indicating his position regarding the acceptance of contradictions generally (the first and second questions of the 4), (2) A individual/ personal aintegration score based on his personal experience (AI) based on the third and fourth questions and (3) a combined sum aintegration (AG+AI) score (AS).

**Questionnaire** examples are presented:

) A dispute exists whether phenomena, such as telepathy, or incarnation can be rationally and scientifically explained.

Some claim that one cannot adhere to rational thinking and at the same time also accept phenomena such as telepathy or incarnation which are irrational.

\* Opposing them are those who claim that one may adhere to rational thinking and yet also accept the existence of phenomena such as telepathy or incarnation even if they cannot be rationally explained.

(a) Generally, to what extent do you think it is possible to think rationally and still accept the existence of phenomena that are not rationally explained? (Impossible to very possible on a 5 point Likert scale).

(b) Suppose someone thinks rationally and also accepts the existence of phenomena not explained rationally. To what extent, in your mind would that cause him to sense discomfort or distress? (5 point Likert scale)

© To what extent can you personally adhere to rational thinking and yet accept phenomena not rationally explained? (5 point Likert scale).

(d) Assume that you think rationally and also accept the existence of phenomena not explained rationally, to what extent would that make you sense discomfort or distress? (5 point Likert scale).

(5) \* Some people claim that in the same person contradicting aspects may exist, one may, for instance have a sense of power, competence, confidence or generosity but also weakness, incompetence, insecurity or stinginess.

\* Other claim that in the same person contradicting aspects such as for instance a sense of power, competence, confidence or generosity but also weakness, incompetence, insecurity or stinginess, cannot exist

(a) Generally, to what extent do you think one can live with contradicting personality aspects? (5 point Likert scale).

(b) Suppose that someone lives with contradicting personality aspects, to what extent, in your mind, would that cause him a sense of discomfort or distress? (5 point Likert scale).

© To what extent are you personally able to live with contradicting aspects in your personality? (5 point Likert scale).

(d) Assuming that you live with contradicting aspects in your personality' to what extent would that cause to sense discomfort or distress? (5 point Likert scale).

### **Some major information and analyses on the questionnaire indicate:**

**Sample Characteristics:** N = 1161. **Females:** 58.3%. **Age range:** 18 – 80, mean 40.39. **Family status:** 33% single, 59% married/cohabiting, 6% divorced/separated, 2% widowed. **Education:** Mean 15.6 ( $\pm$  2.6) years of education **Religiosity:** 63% secular, 18% "traditional", 19% religious.

**Internal Reliability:** Total; alpha= 0.88, General; alpha= 0.80. Individual; a= 0.78

### **The Relevance of Aintegration to Adjustment and Coping in Cogent Areas in Life:**

Our definition above of aintegration as a generic concept as well as its roots in the various areas of science and situations of life, already implies its wide range of possible applications to individual coping, diminishing risks and adjustment in various cogent areas of life, especially in contemporary society and the challenges of modernity.

In the following we present some basic results in 4 studies:

#### **Study # 1: Convergent validity - Correlations With the Need for Structure (a)**

The need for structure has a long standing history in personality and social psychology derived already from the early work of Adorno. et al (1950) and Rokeach (1960). "The Need for Closure" was defined by Webster & Krukglanski (1994) as a personality trait consisting of several factors, such as; a want or structure and order, negative affect in light of ambiguity and the intent to predict on the basis of informed knowledge. Neuberg & Newsom (1993) attempting to improve this conceptual line developed the concept of "The Need for Structure". Their questionnaire captures two distinctive aspects: A preference for structure (e.g., I don't like situations which are uncertain) and the responses to lack of structure (e.g., It annoys me to enter a situation in which I don't know what to expect). Neuberg & Newsom's, (1993) "Personal Need for Structure" questionnaire was checked for reliability and various validity tests, retested and is in use (e..g, Gordon & Smith, 1998; Hess, 2001; Pyszczynski & Martens, 2006) as a valid, relatively short, instrument to measure

the need for structure. We hypothesized negative correlations between aintegration, on its three scores and the need for structure, as in fact on a sample of 441, our **results** indicated.  $r = -.33, -.27, -.37$ , all  $ps < .001$ , for total, general and individual a-integration, respectively.

These results are understood in light of the conceptual and functional characteristics of aintegration as well as those of the need for structure. They also point to several components underlying the two concepts (aintegration and the need for structure) such as; tolerance for ambiguity, ambivalence, sustain complexity and comprehend paradox. These results posit a low need for closure and structure as a basic element in aintegration.

In the present context we also wish, to emphasize aintegration as a major factor in modernity and especially in modern technology and complex systems. "**Modernity**", as we noted above, harbors increased transitional situations, complex technologies, multitasking and complex work-systems (Patanakul, & Milosevic, 2008). A need for closure and structure stands in opposition to such demands of states and conditions. These require the opposite; the ability to function well in unstructured situations, open-mindedness, rejecting conservatism, obtaining novelty, increased creativity, division of attention, independent working, and harnessing complexity, considered as successful management (Axelrod & Cohen, 2000). In light of these, the relevance of aintegration in coping with modern technological environments speaks for itself. Hence our next study

### **Study #2: A-Integration and Flight Attendants: A Profession and Life Style in A-Integrative Coping (b)**

Continuing theoretical lines of study # 1, in this study the impact of aintegration was investigated as to its impact on flight attendants, who in essence have to lead and cope with demanding work conditions and a complex life style in a post-modern era. The work of a flight attendant may for many be desirable work: to travel to remote and exotic places, to enjoy weekends or days free of any obligation, meeting new people and perhaps at the same time study or acquire another profession. However, at the same time he/she pays a high price for that lifestyle and has to make many meaningful sacrifices, such as; adjust to time and space which are in constant flux, deal with unknown and inconsistent changing schedules, part time work, constantly changing clients/passengers and managers, incompatibility between company demands and family/social demands, and are unable to plan the near future. They continually invests "emotional labor" (Hochschild, 1983), live in unstable personal, family and social relationships, cannot ensure commitments or participation in family of social meaningful events and cannot become full partners to them. The risk of experiencing stress and failures in personal, family and social life are apparent. In addition, her/his practical work is characterized by changing roles and multitasking job demands; providing service, heeding customers' well being in the plane, attending medical related

difficulties, heeding potential security problems and readiness for dangerous and risky rescue operations. All in all, it seems to us that that this life style demands A-Integrative coping ability or that a higher level of A-Integration in the flight attendant's personality leads him to this line of work, in the first place. Aintegration here may act as a means to bridge the need to create a coherent and stable self in the context of changing and transient complexity on the job, in the mind, in affect and all in a "fluidic world" (Bauman, 2000).

We know that lower levels of job satisfaction often produce a negative attitude toward the work place. Feelings of work dissatisfaction were found to be related to symptoms of psychological stress, such as: anxiety, depression, sadness and somatic complaints. Job demands and disaffection were found to be related to physiological stress measure such as high blood pressure and different levels of chemicals compounds in the blood may (Fox et al, 1993).

Bellard et al (2004) investigated flight attendants in an attempt to identify stress factors which may indicate health risks as a result of the nature of their work. Flight attendants in fact complained about difficulties in working with passengers, crew and managers that change every flight, the incompatibility between the company demands and their family needs and other stress origins influencing their health. These factors were found to be related to depression and anxiety and symptoms such as seclusion and fears of not being worthy mothers or partners. In an another research Bellard et al (2006), found that in the flight attendants' work, high levels of stress resulting from an imbalance between the job demands and external demands, were related to lower levels of self reported health and lower job satisfaction, all correlated with psychological distress.

**Two major hypotheses** were tested in our study: (a) the higher the level of A-Integration in the flight attendant, the higher his level of job satisfaction. (b) The flight attendant with higher levels of A-Integration will suffer from less psychosomatic symptoms.

**Sample:** 98 flight attendants working in the Israeli international airline company, "ELAL" company. 31% were males, average age of 28.

**Instruments and Measures:** The following instruments, between others, were used: (1) **The A-Integration questionnaire**, as described above. (2) Job Satisfaction, known also as an indicator of "job adaptation" was measured using **Schanke's (1983) job satisfaction questionnaire** (factors include: interest and challenges; colleague's environment; supervisors; physical conditions; promotions; load; salary and bonuses). (3) Psychosomatic symptoms were measured by the **"Psychosomatic Symptom Checklist"**, developed by Cox, Freundlich & Meyer (1975). The questionnaire checks the type of symptom and their intensity on a Likert scale (17 items, e.g., headache, stomachache, dizziness, nausea).

**RESULTS:** Both hypotheses were confirmed. (a) Significant Pearson correlation was found in the expected direction; Higher levels of aintegration were related to higher levels of job satisfaction. These were obtained on all the 3 levels of aintegration; the general attitudinal measure (AG)  $r = .287$ ,  $p < 0.001$ . The personal individual level (AI)  $r = .240$ ,  $p < 0.005$ , and the total sum level (AS)  $r = .274$ ,  $p < 0.001$ . The higher the aintegration level of the flight attendant, the higher his satisfaction with his work, a fact which no doubt diminishes the risk of burnout (Maslach, Schaufeli & Leiter, (2001), and contributes to one's general level of adjustment and well-being (Shirom, 2003). A regression analysis further confirmed these findings and showed that a-integration has a significantly independent association with job satisfaction even after controlling for age, gender, marital status, and student status.

To conclude: The high level aintegration flight attendant is more satisfied with his work.

(b) Our second assumption, that the flight attendant with higher levels of aintegration will suffer less psychosomatic symptoms, was verified as well. Flight attendants with higher level of aintegration suffer from less psychosomatic symptoms and lower intensity. These were significant on all 3 aintegration score levels: General/attitudinal aintegration (AG)  $r = -.211$ ,  $p < 0.05$ . Individual aintegration (AI)  $r = -.234$ ,  $p < 0.05$ , and sum total aintegration (AS)  $r = -.232$ ,  $p < 0.05$ . Job satisfaction was also related to symptom frequency and intensity. When both job satisfaction and a-integration were entered into a regression model explaining symptoms, the effect of a-integration was non-significant, suggesting the job satisfaction mediates the negative association between a-integration and symptoms.

### **Study # 3: A-Integration as a Facilitator of Resilience that Buffers Post Traumatic Symptoms in Face of Negative Life Events.**

The issue of trauma has witnessed extensive waves of research (e.g. early psychoanalytic; more contemporary, early- memory based, child incest events; investigating war traumas since 1<sup>st</sup> W.W. and peaking after the Vietnam war; sexual abuse as defined in present age (Herman,1992; Schetky, 1990). These waves of research also resulted in modifications of the definition and comprehension of trauma; from an extreme and rare event outside the range of regular human experience (DSM-III, 1980) to a more widespread one containing a larger range of harmful, extremely distressing experiences and symptomatic criteria (DSM-VI-TR, 2000). Wide-scale epidemiological research on the prevalence of PTSD in representative samples found prevalence to be between 5%-9% (e.g., Kessler, Sonnega, Brommet & Nelson ,1995), this, despite the claim that most people experience at least one traumatic event throughout their lives.

Believing that we all face negative life events and given the psychological risks involved as

to the consequences of such negative events, we decided in this study to focus on traumatic events but also on very negative life events and their impact which may render them as traumatic manifesting post traumatic syndromes.

Other studies have found that a integrative – related- traits and behavior served as resilience buffering the impact of negative life events or trauma. These included the traits of flexibility (Tugade & Fredrickson, 2004), restructuring of situations (e.g., Punamäki & Puhakka) 1997), creativity (found to be related to a integration, Shnaf, 2003) and related traits such: originality, unconventional thinking and openness (e.g., Jackson & Messick, 1965; Punamäki, Qouta & El-Sarraj, 2001). Further research revealed that: Maintaining multiple aspects of the self (Lifton, 1993) and complex Self schemata (Linville, 1987; Steinberg, Pineless & Mineka, 2003), the ability to engage in complex and multi-dimensional cognitive operations (Suedfeld, Fell & Krell, 1998) and the ability to contain positive and negative emotionality (Campbell, Chew & Scratchley, 1991) also buffer stress and trauma.

The present investigation aimed to study a-integration as resilience factor as a facilitator of adaptive adjustment in face of negative life events which buffers further risks and post traumatic symptoms.

We expected a negative correlation between a-integration (across its three components) and post-traumatic symptoms.

## **Method:**

**Sample:** 260 subjects, 171 women and 86 men. Age range of 45 to 79.

**Instruments:** (a) The subjects reported negative life events, on a 19 items negative experiences list, and then ranked the extent to which they perceive the event as traumatic to them on a 8 point scale from "Not traumatic at all" to "Very traumatic" (Negative life event questionnaire, Morgan & Janoff-Bulman, 2004). (b) Subjects were then referred to the previous questionnaire and asked to choose the most traumatic event they marked and then indicate on a 5 point Likert scale, 22 item symptomatic list (including hyper-arousal, intrusion and avoidance symptoms), the PTSD symptoms, they experienced in relation to that event during the last seven days (IES-R, Weiss & Marmar, 1997). (c) The a integration questionnaire (see above).

Reliability alpha measures for these instruments ranged:  $\alpha$  0.79-0.93).

## **RESULTS:**

**Hypothesis** was supported, revealing a negative correlation between a-integration and post-traumatic symptoms (a-integration as a personal attitude  $r = -0.15$ ,  $p < 0.05$ ; a-integration as a

general attitude  $r = -0.15$ ,  $p < 0.05$ ; global a-integration  $r = -0.16$ ,  $p < 0.05$ ).

These findings also indicate that people high on aintegration conceive and rank negative life events as less traumatic and support aintegration as a resilience facilitator that buffers post traumatic symptoms in face of negative life events.

## **Study # 4: Aintegration and Coping with the Long Term Effects of the Holocaust and Posttraumatic Risks**

Research on Holocaust survivors has to ask: **In What Manner Do We Comprehend Holocaust Survivors' Coping with the Long-term Effects of the Holocaust? Are We Satisfied with our Approaches?**

While a psychopathological paradigm, as mentioned above, is without question a major one in Holocaust research, and should rightly be so, we question whether it exhausts the problems Holocaust survivors' present in their daily lives and whether approaching them in light of a clinical approach with its hypothetical constructs, e.g., *Repression, Rationalization, Denial, Dissociation* of various kinds, *Splitting, Personality Disorders, Guilt, Shame, Depression, Grief, and Mourning* – is Sufficient in comprehending their coping? We doubt that. The clinical paradigm has resulted in most important research and findings reflecting the suffering and psychopathologies of Holocaust survivors (e.g.,; Danieli, 1981; van der Kolk, et al.1996). However, it has to be asked: Do the constructs of the clinical paradigm, including *Post Traumatic Symptom Disorder (PTSD)*, exhaust the trauma-related behaviors and long-term effects of Holocaust survivors? Do they capture the serious distress and potential future risks of Holocaust survivors? We seriously doubt it.

**Furthermore:** Would survivors with clinical pathology explain psychological mechanisms enabling Holocaust survivor's growth and self-actualization? Holocaust survivors have usually been exposed to years-long systematic degradation, persecutions, mass murders and torment of the most extreme kinds known to human history. However, while all of them, no doubt, carry scares and burdens, of various kinds, relatively *only a minority of them explicate diagnosed psychopathology*. It should be of interest to inquire what distinguishes victims who develop long-term PTSD from those don't, and what risk-avoidance mechanisms and behaviors are involved.

Research, for instance, also revealed positive coping and well being of survivors (e.g., Kahana, et al 1988) and most survivors live successfully without diagnosed psychopathology. Many researchers postulate that survivors held or hold different Selves or "multidimensional selves" (e.g., Lifton, 1983). But, as noted, most of these are explained (Herman, 1992; van der Kolk & Van der Hart, 1991) on the basis of processes such as splitting, repression, fragmentation, dissociation, or other dissociative mechanisms and "clinical" concepts. These we claim may limit the kind of

questions we may ask about posttraumatic coping and growth and prevent adequate comprehension of survivors coping modes (Lomranz, 2002).

Despite the later awareness of the need to study the non-clinical survivor population in the community (Shmotkin & Lomranz, 1998), researchers seem still to be at the starting line and barely managed to explicate the role of relevant psychological concepts so as to resolve theoretical and methodological problems:

Some researcher (Krystal, 1988) maintain that the acceptance of "life" is paradoxically for Holocaust survivors. Could it be assumed that most survivors can carry such a paradox without debilitating stress?

Scrutinizing **narratives** of Holocaust survivors only intensifies the problem: We ask ourselves as researchers: Do we read properly and are able to conceptualize, the testimonies of Holocaust survivors, loaded with contrasts and paradox, and comprehend their voice? Our answer, unfortunately, is negative.

In our ongoing biographical studies on the long-term effects of the Holocaust among well-functioning Holocaust survivors at Tel Aviv University (Lomranz, 1995) we found the constant presence of contrasts and paradoxes in their testimonies. E.G., just to mention a few: *Mourning*, considered a prerequisite for overcoming loss, was often conceived as impossible. *Meaning*: While most survivors find meaning in endurance as well as in present life yet unequivocally concluded that "there is no meaning." *Religion*: "I can't pray because I have a personal feud with God but I go to the synagogue and sent my children to Hebrew school. *Incomprehensibility*: They keep repeating that the human mind cannot comprehend that other human beings, the Nazis, have inflicted such pain and committed genocide in the horrifying manner they did. "To live after the Holocaust seems that either I am crazy or the world is." *Discontinuity*: "The person I am now is not the same person I was in the ghetto." *Paradox*: "I feel we all live in paradox" or: "I can't explain that after the death camps I returned to Germany and did business with the Germans" or, "The camp buried me but also at the end gave birth to me." *Logic and Rationality*: How can it be that my family life is so important and to me, but life as a whole is not?" or "I can't think that the Nazi cruel soldier in the camp was a good father and husband at his home"

How do such data square with narratology and clinical theories? Remember that **continuity**, and **coherence** of a narrative, for instance, is considered crucial in adult development and well being. Is it still possible, with a break in continuity, for the survivors to maintain a coherent self-image? and if yes, *how*? What kind of mental processes could allow for that? "Mind splitting operations" or repression, etc., do not hold for all. Certainly most survivors have not dissociated their horrible

Holocaust memories during the past sixty years. In addition, most of these explanations require continuous activation of defense mechanism which demand constant psychic energy investments, all interfering with adequate adjustment, positive development and growth. In our own research on Holocaust survivors, we found that the ability to contain contradictions facilitated resilience and posttraumatic adjustment (Lomranz, 1995; 1998; 2005).

Let us re-emphasize: That **adult developmental models**, as noted above, do not offer adequate models answering our questions: Many elderly experienced disappointments, frustrations, experienced contradictions and contrasts in feelings about themselves and their lives. How do such phenomena coincide with posttraumatic processes? It appears difficult for many survivors to assemble their life story into one continuous biographical line. Many present their lives as having been disrupted and never reunited or reconnected and they resisted strongly, unyieldingly, when asked to **affirm** their past life in Eriksonian terms (see above).

We assume that part of the problem lies in the kind of questions we ask. Framing our questions in terms of pathology will only in fact yield pathology. Our own interest lies in comprehending strength and resilience. The bewildering questions are: How is it possible that as people who went through one of the most horrifying traumas that human imagination can even think of, yet *despite* it can still experience happiness and are able to lead productive lives? What mental apparatus permits such phenomena? We know that many survivors may function well in daily life, while still remembering and not suppressing the unspeakable atrocities they have experienced. Under certain circumstances people can experience existence as incomprehensible, as inconsistent and paradoxical, a position which may allow them to engage in remedial, corrective and therapeutic kinds of activities. Such hypotheses have of course to be conceptually conceived and researched. It is here that we turn to aintegration and our last study, investigating the impact of aintegration in coping with the long-term effects of the Holocaust.

## **Methodology**

**Sample:** consisted of 84 functioning-in- the- community elderly Holocaust survivors. They are part of an ongoing larger research project we conducted.

**Instruments:** An **unsolicited script** (mentioned above) was used to operationalize the variable of aintegration and served as its measurement served to assemble two research groups.

(a) *An aintegrative script:* The script, part of an **unsolicited biography** written by a Holocaust survivor, and asked subjects for responses to it. Hanna is a 70-year-old Holocaust survivor. She lost all her family, but survived work and death camps. She wrote (Nisman, 1995)"... **with my**

memories I descend to a deep hole which I cannot understand, yet I belong to it (p. 20) ... I can hardly believe that my past belongs to my life... yet it's me living with all those terrible scenes together with a love for life... the break in my life and then four decades of family building, then going back, the present and the past, and frustration and satisfaction... these contradictions accompany me, and maybe everyone, along the course of my life. To know how to live with these *contradictions, and within these inconsistencies* -- is one's guarantee of a *sense of wholeness in life* (italics mine)... I experience the inconsistencies within me: on the one hand, the ability to accept reality and the facts and on the other hand it is impossible... one has to learn to live with contradictions and with the inconsistencies of life (p. 61)".

After reading the script the subject was asked to answer 4 questions (2 general and 2 personal oriented questions, identical to those on our 14 item questionnaire) on a 5 point Likert scale:

- 1) *Can a person live like this, with such inconsistencies and opposites ?*
- 2) *Assuming that someone is able to live with inconsistencies and contrasts like that, would it cause him stress or distress ?*
- 3) *Do you personally live with inconsistencies and contrasts regarding events which occurred in your life ?*
- (4) *Had you lived with inconsistencies and contrast would it bother you, or cause you stress or distress ?*

In addition a questionnaires (part of a larger battery) targeted specific questions as to the following areas:

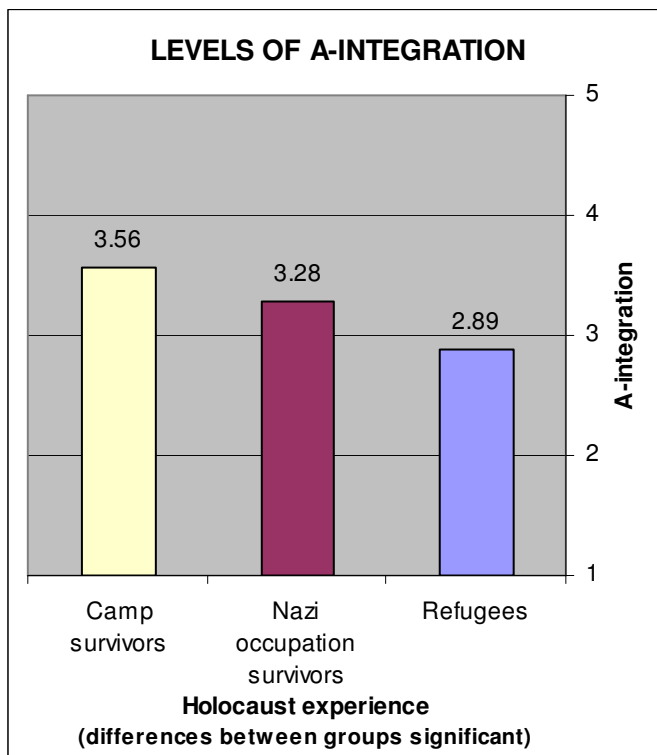
*(b) Involvement and Preoccupation with Holocaust- Related Activities, Health and assumptions about self and the world:* These were elicited on the following (Likert scales); **(b1)**.To what extent do you engage in visiting Holocaust Museums? **(b2)** Visiting concentration camps? **(b3)** Writing memoirs about that period in your life? **(b4)** To what extent does talking with others about what you went through during the Holocaust, causes distress or makes it easier for you? **(b5)** Is it better for you to be detached (in terms of thinking, talking with others, dreaming or activities) from what you went through, or to be involved with it?

The following variables were tested separately on "**Holocaust survivors**" and "**Refugees**" groups using the following reliable instruments: *(c) Mental Health:* Two reliable and validated measures on PTSD and Depression have been used here: (c1) **The post-traumatic stress symptoms scale** (Solomon, et al. 1993), and (c2) **The Depressive Symptom Scale** (Radloff, 1977). *(d)General*

**Health.** (d1) Self rated health (d2) Controlling for illness. All questions were answered on 5 point Likert scales and correlated with measures of aintegration.

## Results and Discussion

(a) **The aintegrative script**, as a measure for aintegration: The reliability of the questionnaire (4 questions, *ibid*) revealed an **alpha = 0.78**. indicating that the questionnaire is reliable and moreover, that *people who believe in general that a person can live with inconsistencies also believe that it will not cause them distress living that way*. They also state that *they themselves live with inconsistencies and that it does not cause them distress*. (b) Analyses also revealed statistically significant *difference between 3 research groups* as to **the level of aintegration**: (1) *Camp Survivors* obtained the highest level of aintegration (3.56) after them came those who survived *under Nazi occupation* (3.28) and the last group were *refugees* (mainly fled to Russia) who scored 2.89. These result support the notion that perhaps those who are highest in need of aintegration – death camp survivors - also use it.



{Option: Insert Appendix Tables # (b), (b1), (C) & (D).}

(b) PREOCCUPATION WITH THE HOLOCAUST: Behaviors  
Correlations with A-integration: To what extent do you engage in:

visiting Holocaust museums?

.22\*

visiting concentration camps? .28\*\*  
 writing memoirs? .24\*

\* p<.05                    \*\* p<.10

(b) PREOCCUPATION WITH THE HOLOCAUST: Attitudes

Correlations with A-integration

To what extent does talking with others about what you went through make it easier for you?

.31\*\*

(high = makes it much easier)

Is it better for you to be detached from what you went through, or to be involved with it?

.39\*\*

(high = much better to be involved)

\* p<.05                    \*\* p<.10

c) The nature of the trauma has often not been differentiated enough (Shmotkin & Lomranz, 1998). We therefore divided our sample to (1) those that were in death camps, work-concentration camps and in the ghettos and (2) the others who managed to flee, usually at the time, to Russia. We assumed that the severity of the traumatic experience may determine whether a-integration is in use as a coping mechanism.

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Correlation with A-integration

	H.Survivors (N=64)	Refugees (N=20)
Post-traumatic stress	-.45***	-.08 n.s.
Depressive symptoms	-.36**	-.20 n.s.

\*\* p<.01                    \*\*\*p<.001

(d) A-INTEGRATION and GENERAL HEALTH

Correlation with A-integration	Holocaust survivors	Refugees
	(N=64)	(N=20)
General self-rated health	.32*	.05 n.s.
General self-rated health controlling for illnesses (weighted by severity)	.26*	.03 n.s.

\*  $p < .05$

***Involvement in and Preoccupation with Holocaust Related Activities*** {Table (b) and (b1)}: For those high on aintegration, (b1), they more often visited; Holocaust museums ( $r = .22^*$ ), concentration camps (b2) ( $r = .28^{**}$ ) and wrote memoirs ( $r = .24^*$ ) (b3). They also claimed that talking with others about the Holocaust has a positive effect ( $r = .31^{**}$ ) on them (b4.), and they also find it better ( $r = .39^{**}$ ) not to be detached but involved in Holocaust related activities (b5)

We know that many survivors still, even after almost 70 years later, are in great pain and many don't discuss their Holocaust experiences even with their family members, fearing the risk of being overwhelmed by traumatic memories. Many others avoid stimuli or behaviors reminding them of the trauma. On this background our results seem very meaningful, revealing that people high on a-integration don't need to practice avoidance behaviors, as so many posttraumatic people do. Furthermore, they feel that talking with others about the traumatic experience is constructive for them. They also feel that it is better not to be detached but rather to be in touch with the horrible traumatic experience. These finding also lend support to the distinction between aintegration and splitting or other similar defense mechanisms since the use of the latter is aimed at avoiding stress resulting from Holocaust-related memories while for the aintegrative person relating to such memories is adaptive.

In fact results revealed significant (c) correlations between ***aintegration and Mental Health***: Camp survivors high on aintegration had lower post traumatic stress symptoms ( $r = -.45^{***}$ ) and were also significantly less depressed ( $r = -.36^{**}$ ) while those lower on aintegration are higher on the Post Traumatic Stress Syndromes and depression. This however does not hold for those who were "refugees". The same holds true for self-rated physical health. Camp survivors, but not refugees, high on aintegration, rated their **general health** as higher ( $r = -.32^*$  and  $.26^*$ ). In sum

here: Aintegration enables direct engagement in activities which relate to the trauma thus being conducive to coping and improved physical and mental health.

**Concluding;** these results confirm that (1) aintegration can be operationalized and measured, that (2) that it may be utilized where in is more needed; in the more severe traumatic states, and that (3) for those high on aintegration, the ability to relate and be involved with the traumatic – related memories and experiences has positive implications. Such survivors handle their horrified memories **not** by avoidance, splitting or repressing but rather with mindfulness, encountering traumatic memories directly even if they constitute states of inconsistency or paradox. Such coping and consciousness does not necessarily entail distress and mental illness but rather suggest successful coping, decreasing potential PTSD risks in post-Holocaust living and existence. Thus this study provides further differentiated knowledge and we may stipulate the effectiveness of aintegration and manage it in a manner which may buffer detrimental coping, decrease risks and serve as the basis to resilience and positive coping.

## **Discussion & Conclusions**

We have presented the concept of aintegration and its relevancy to risk management of individuals under various conditions. In the following we will outline some further implications of the concept and the presented studies as well as theoretical implications.

(1) Our **findings about the need for structure** only highlighten the importance of such a lower need and perhaps it's opposite; openness and complexity, in modern organizational work as well as personal management. We propose that measures of aintegration should be used as a selection tool in the relevant organizational settings.

### **(2) Regarding Aintegration and the Individual in Organizations.**

**Study # 2 on flight attendants** revealed that aintegration is very conducive both on the level of job satisfaction as well as a buffer for stress and health related psychosomatic symptoms. To further this related discussion let us dwell on **organizational management**:

In aintegration the ability to handle paradox and double messages is central. But we conceive paradox as central in personal daily life (Schwartz, 2003) and the handling and managing of paradox as a major challenge especially to the modern manager in technological advanced organizations.

The **concept of paradox** is defined as a situation in which two statements, both equally valid, infer two contradictory conclusions (Clarke, 1998) or, seemingly absurd, though perhaps really well-founded statements (Oxford dictionary). Paradox differs from similar concepts and situations such as: dilemma, irony, ambivalence or ambiguity, especially because in paradox there is no alternative choice. The contradiction maybe inherent in a sentence, e.g.: "I love you although I hate you," or "the source to the success of the organization is also the reason to its fall". The perception of paradox is that a positive factor can simultaneously be also negative.

It is difficult for people to deal with paradoxical statements and positions. They arouse irritation, discomfort and even anxiety, since the logical basis through which we comprehend reality does not serve us (Hatch & Ehrlich, 1993) and the quality of a paradoxical thought process is reduced to a lower, simplistic, less differentiated level (Fiedler et al., 2003). As such, a paradox is always a potential element of irritation, or breaks in communication. The presence of a paradox may constitute a managerial risk factor which has to be constructively managed.

### **Paradoxes and Paradoxical Thinking in Organizations.**

Paradox, in a organizational perspective, may cause a vicious circle, with seemingly no way out. To cope adequately with paradoxical situations the manager may have to change his mode of thinking in cognitive psychological terms.

As a major example we turn attention to coping with paradox in organizations termed **"Intellectual Capital" Organizations** (e.g. video games).

Intellectual capital in the form of knowledge is, like in any other business a commodity to be sold and make profits. The skill and abilities of the workers in the organization constitute the basis to the product or, are the product itself (Nahapiet & Ghoshal, 1998). The management of such an organization is considered complex and presents serious problems (Murphy & Pauleen, 2007). These problems are inherent in: (1) The manner in which people create is dependent to a great extent on their social and professional environment; (2) Intellectual capital requires conditions of an open system; creating informal relationships and networks. Creative people need mutual fertilization within their community, mainly informal. (3) However, formal structures which guide organizations generally are very different from un-formal ones needed in a creative system and its working crew. E.g., formality such as fixed working hrs. required paper work, time schedules, etc. are all not conducive to creative elements such as daydreaming, privacy, experimentation, etc. Or, the need to compartmentalize different sections is considered as efficient management but does not fare well with open systems of organizations promoting creativity and mutual fertilization, in fact such attempts may seriously be damaging. (4) In

Intellectual Capital organizations we deal with "a community of experts" in different fields (e.g. video games has musicians, script writers, economists, sound and light experts, contact with the users of the product, etc.) hence we deal with the need for individual freedom within a diverse community and the freedom and wide space a group tends to occupy versus that of the individual. (5) Research has shown that relationships between creative individuals are less consistent, more aloof, non-conformist, less stable or predictive and often anti-social (Simonton, 2000).

All these may fuel paradoxes which may arise; between creativity and efficiency, between free flow of information and competition, between formality and informality, between sociability and anti- sociability, and constitute potentially paradoxical situations as well as possible conflict. They may, for instance be the basis for a manager's paradox as he faces "unsocial sociability" of his employees; actually 2 basic paradoxes: The "sociability in a non-social framework" and the "un-formal formality" positions resulting from two contrasting demands (handing in formal accounts of production, etc versus the need for non-interference with creative/productive work).

The proper management of these situations and their potential damage and risk **demands, between others, that:**

(1) The manager should acquire adequate attitudes so that open and close systems and formal vs. un-formal personal relationships may exists in, and between, organizations.

(2) Westenholz (1993) elaborates 3 factors which, when in concert, enable paradoxical thinking in organizations: A forum for discussion populated by diverse opinions but able to reach real dialogue: Workers, at least a few of them, capable of paradoxical thinking, highly creative and ready to risk applications of novel solutions or unpredicted actions or admit mistakes. All 3 factors are required. Each by itself is useless.

Again we suggest aintegration as tool for selection of workers in various and specific organizational settings as well as a basis for cognitive training of its principles.

#### **(6) Modes of Thinking and Management Training.**

It is clear today that in order to handle paradoxical situations, most managers need to perform drastic changes in their modes of thinking. **Management training** should dwell on principles of paradoxical thinking as well as on principles of aintegration and creativity, such as; Training to create wider, alternative and balanced perspectives, training for divergent thinking, re-framing problems, etc. (see 11 principles aintegration). **Some directions:**

(1) **Undoing Common Reactions to Paradox:** The common reaction to paradoxical conditions and statements is: denial, undoing, rejecting and favoring one position, confusion, opposition. All these should be conceived as improper. (Clarke, 1998; Peng & Nisbett, 1999) .

(2) **Dialectic Thinking:** Aristotelian logic that 2 conflicting positions cannot exist, should be rejected and dialectics adopted. Rationality is not conducive in handling paradoxical situations. Western **dialectics** (thesis- antithesis – synthesis) will always lead to integration. Hence a paradox will always be short lived and disappear when synthesis is reached. Thus western dialectics preserves Aristotelian logic maintaining that contradictions are unacceptable. Therefore paradoxical thinking is not practiced.

(3) **Thinking Paradoxically:** Paradoxical thinking (developing as a field by now) is **divergent** as opposed to convergent (if you face a rock you may have to go around it instead of trying to hammer through it) (Westenholz, 1993). More possibilities are extended and may come fore. In paradoxical thinking, as in principles of aintegration, traditional western dialectics are not accepted. Inherent in certain situations contradictions may be contained and certain perspectives come fore, revealing the limitations in previous modes of thinking (Clarke, 1998) which then enable the contradictions to exits simultaneously.

Also, dialectical Chinese may be considered a characteristic of such thinking ( Murphy & Pauleen, 2007; Peng & Nisbett, 1999). Chinese, and other east- Asian countries, hold different ontology's and epistemologies: In Taoism the principle of focalization of change, acceptance of opposites and contrast, ying/yan, most of them accepting principles of constant flux and change; contradictions are inherent in everything; and the principle of holism. Here hold a one does not search absolute "truth" (Peng & Nisbett, 1999). There is a cultural tradition in which paradox and or sometimes statements which sound meaningless, or contradictory, or contra -dictionary elements in the same situation (good and evil exist together) are part of conversation, dialogue, literature, poetry art and culture (Murphy & Pauleen, 2007).

This mode of thinking is also supported by the work of Bateson and his colleagues (Watzlawick, Beavin, & Jackson, 1967) on paradoxes and the double bind claiming that in double bind situations no change can be generated if we remain within a giving thought system and that change can only come from stepping outside that system, disregarding a certain reality.

(4) **The Use of Humor:** Humor, verbally and non-verbally, is a major mode of communication and is especially important in handling paradox and when regular discourse cannot handle enigmatic or double meanings, (Hatch & Ehrlich, 1993). Humor is based on double, overt and covert meanings and connects different and contradicting phenomena. It may identify paradox, diminishes the anxiety which often comes with paradox and at the same time increase

mindfulness to it and face it and even perhaps enjoy paradox. A manager should invest in developing a sense of humor.

These of course are just some direction presenting today actually a dynamically applied field.

### **(3) Aintegration, Negative Life Events and the Holocaust.**

The implications of coping with negative life events and posttraumatic distress in aintegrative modes seem to be far reaching as our study (**Study # 4**) and its results revealed; aintegration seems for many trauma survivors, to be a preferred valuable coping mode, reducing risks and coping more effectively with the trauma.

In addition we believe that these results should contribute to a more realistic image of posttraumatic victims, and especially Holocaust survivors: Not just a one sided image of helplessness, despair and weak victims but also as reflecting human strength; being able, despite their most horrible Holocaust experience, to demonstrate astonishing resilience abilities and achievements in all domains of life. We deem such a more articulated image as partly valid for all victims of trauma.

### **(4) Implications for Narratology**

In recent years the use of narrative practices has expanded tremendously. It is in use, between others, in the humanities, arts, the social sciences, and various areas of health, psychotherapy, "corrective" disciplines and human development and is widely used as "narrative means to therapeutic ends" (White & Epston, 1990). We claim that our research points to major issues in narratology and outline some of them:

The narrative reader elicits, interprets and employs narratives to induce change. A process of construction, deconstruction, and reconstruction takes place and it has to be asked: How are narratives read, and dealt with? In light of which parameters and criteria are narratives comprehended, interpreted and used to serve as the basis to correct and reconstruct experience? (Parry & Doan, 1994). What is the narrative reader's attitude to the elements of aintegration? Does he incorporate them in his work?

*Conventions of Narratives*", is the term indicating the agreed upon structure which hold narratives together. Labov's (1972) summarized the elements of a "fully formed" narrative. Embedded in them are criteria such; continuity, logic, causality, rationality, consistency, linearity, coherence, order and sequence in time and space. Can such notions be required in the perceptive world and in the consciousness of all survivors' of negative life events?, posttraumatic persons? and embedded in their narratives? Time, for instance, for a brutally raped woman or for a death camp survivors stands as an isolated island in temporality, located in a different time zone and a

different planet, yet its impact on them in the present is dominant (Lomranz, et al.1985).

Continuity does not square well with a broken biographical life- line of traumatized expelled refugees feeling that such disruption cannot be reunited or reconnected. Most "conventions of narrative" are incompatible with a integrative material. Yet such persons should of course have access to alternative narrative structures.

**Let us focus on language** defined as an epistemological component mediated by culture (Brunner, 1990), and provides, meaning, values and evaluation to terms. Modernity with its accelerating change, modern technologies, and disharmonic features, has been referred to as a culture of fragmentation and structural lags. One would expect these to be reflected in meaning attributions to language. Is it? Consider the following terms:

Let us share with you the following: Performing a pilot study querying for esthetic-value preferences, we asked 100 subjects to rank and evaluate the following terms: *Simplicity - Complexity; Consistency- Inconsistency; Unidirectionality - Multidirectionality; Coherent - Paradoxical; Continuity - Discontinuity; Unified –Chaotic*. Which of these terms would receive preferred ranking? Each term was presented separately, and evaluated according to Osgood's (1957) language evaluation scales (positive – negative good – bad, etc). Results very clearly showed significantly higher evaluations for the first term in each pair above, indicating serious implications when reading and interpreting narratives in the light of positive- accepted or negative- rejected terms in the language. **Such a cultural impact on language could be a disadvantage for persons rendering their narratives as less comprehensive or even pathological.**

It seems that "conventions of narrative" are not enough revised in light of contemporary culture. Perhaps because traditional value- meanings still prevail and as lay epistemology (Kruglanski, 1989) notes; scientists, like lay people, typically look for confirming instances in forming opinions and investigations. Failing to formulate the questions we should be asking about narratives, we may find ourselves searching a lost coin under only under lamppost.

It is therefore imperative that we approach narratives with broader vistas, including a integration and re-evaluate meanings of language keeping ourselves open to ambiguities rather than imposing our own interpretive "closure" on text.

**Coda:** Epistemology is the theory of the method of knowledge. It accounts for our consciousness. It underlies the foundations of scientific models as to the *forms* through which knowledge is obtained. Paradigms and the zeitgeist and, are powerful components in the dynamic epistemological process. We believe that a integration is part of a spearhead for a different paradigm in the social sciences. Presently, epistemology, especially as operating in the humanities, behavioral and social sciences, is furnished by paradigmatic guiding principles such as; harmony, integration, consistency, simplicity, coherence, continuity, etc. These principles, however,

while constituting today the mainstream of scientific research and the forms through which we obtain our knowledge, seem to us insufficient. They do not represent the impact of contemporary culture with its rate of change, multidimensionality and variance. We should not dismiss, but face the perceived complex disharmonic roots in human culture, as recourses shaping epistemology, a course to which complexity theory and aintegration attempt to contribute to. The need to induce congruence, consistency or continuity should not be preferred in every situation and often the preferred attributes should be; complexity, inconsistency, discontinuity, paradox, ambiguity and ambivalence. Such a course, we believe, would lead to different research paradigms and then have impact on the required modification of present day epistemology and would improve coping abilities, problem solving and diminish risks in individuals and organizations.

Presently, aintegration constitutes a major ongoing research project at Tel Aviv University yielding informed knowledge while investigating diverse populations and personal as well as social issues. In our ongoing studies we have found, between others, connections between aintegration and; creativity, marriage, ego development, various personality traits, teaching modes, coping with negative life-events, coping with trauma, Holocaust survivors, job satisfaction, religion, life-reviews and homosexuality and established aintegration as being conducive to constructive coping with diverse complicated and risk- involving issues. Further intriguing areas are being investigated.

(a) Study performed by Omer Ger as part of the requirements for his graduate thesis.

(b) Study performed by Shagi Berger as part of the requirements for his graduate thesis.

## References

- Abelson, R. (1968). *Theories of Cognitive Consistency*. Chicago: Rand McNally.
- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J. & Sanford, R. N. (1950). *The Authoritarian Personality*. New York: Harper and Row.
- American Psychiatric Association (1980). *Diagnostic and statistical manual of mental Disorders*, 3<sup>rd</sup> Edition. Washington, DC, American Psychiatric Association, 1980.
- American Psychiatric Association, (2004): *Diagnostic and Statistical Manuel of Mental Disorders*, (4<sup>th</sup> ed.). Washington, DC, American Psychiatric Association.
- Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well*, San Francisco: Jossey-Bass.
- Arlin, P. (1975). Cognitive development in adulthood: A fifth stage? *Developmental Psychology*, 11, 602-606.
- Aron, L. (1995). The internalized primal scene. *Psychoanalytic Dialogues*, 5 (2), 195-237.
- Axelrod, R., & Cohen, M. (2000). *Harnessing complexity: Organizational implications of a scientific frontier*. New York: Basic Books

- Ballard, T. J., Romito, P., Lauria, L., Vigiliano, V., Caldora, M., Mazzanti C., Verdecchia<sup>1</sup> A. (2006). Self perceived health and mental health among women flight attendants. *Occupational and Environmental Medicine*; **63**:33-38
- Ballard, T, J. Corradi, L. Lauria, L. Mazzanti, C. Scaravelli, G. Sgorbissa, F. Romito, P & Verdecchia, A. (2004). Integrating qualitative methods into occupational health research: a study of women flight attendants. *Occupational and Environmental Medicine*. **61**:163-166
- Baltes, P. B. (1987). Theoretical Propositions of Life-Span Developmental Psychology: On the Dynamics between Growth and Decline. *Developmental Psychology*, **23** (5), 611-626.
- Bauman, Z. (2000). *Liquid Modernity*. Polity Press. Cambridge.
- Baumeister, R. (1998). *Self-esteem: The puzzle of low self-regard*. New York: Plenum.
- Bell, D. (1999). *The coming of post-industrial society*. New York: Basic.
- Benyamini, Y. (2005). Can High Optimism and High Pessimism Co-Exist? Findings from Arthritis Patients Coping with Pain. *Personality and Individual Differences Differences*, **38**, 1463-1473.
- Bonanno, G. A., Galea, S., Bucchiarelli, A., & Vlahov, D. (2006). Psychological Resilience after Disaster: New York City in the Aftermath of the September 11<sup>th</sup> Terrorist Attack. *Psychological Science*, **17** (3), 181-186.
- Bruner , J. (1990). *Acts of meaning*. Cambridge, Massachusetts; Harvard University Press
- Butz, R.M. (1997). *Chaos and Complexity: Implications for Psychological Theory and Practice*. Taylor & Fancis, Washington, DC.
- Campbell, J. D., Chew, B., & Scratchley, L. S. (1991). Cognitive and Emotional Reactions to Daily Events: The Effects of Self-Esteem and Self-Complexity. *Journal of Personality*, **59** (3), 473-505.
- Cialdini, R. B., Trost, M. R., & Newsom, T. J. (1995). Preference for consistency: The development of a valid measure and the discovery of surprising behavioral implications. *Journal of Personality and Social Psychology*, **69**, 318-328.
- Clarke, Martin. (1998). Can specialists be general managers? Developing paradoxical thinking in middle managers. *The Journal of Management Development*, **17**, 191-200
- Clayton, V. (1975). Erikson's theory of human development as it applies to the aged: Wisdom as contraindicative cognition. *Human Development*, **18**, 119-128.
- Cox, D., A. Freundlich, and R. G. Meyer. (1975). Differential Effect of Electromyograph Feedback, Verbal Relaxation Instruction, and Medication Placebo with Tension Headaches. *Journal of Consulting Clinical Psychology* **43** (6): 892-98.
- Danieli, Y. ( 1981 ). On the achievement of integration in aging survivors of the Nazi Holocaust. *Journal of Geriatric Psychiatry*, **14**, 191-210.
- Davison, E. H., Pless, A. P., Gugliucci, M. R., King, L. A., Salgado, D. M., Spiro, A. III, & Bachrach, P. (2006). Late Life Emergence of Early-Life Trauma. *Research on Aging*, **28** (1), 84-114.
- Derrida, J. (1976). *Of Grammatology*. Baltimore: John Hopkins University Press.
- Erikson, E. (1968). *Identity, youth and crisis*. New York: Norton

Eshet, Y. (2007). Humans Under Bombardment: : Performing in a Real-Time World. The ACM SIG CSE Bulletin, 39 (4): 57-60.

Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.

Fiedler, K., Walther, E., Freytag, P., Nickel, S. (2003). Inductive reasoning and judgment Interference: Experiments on Simpson's Paradox. *Personality and social psychology bulletin*, 29, 14-27.

Fox, M.L.; Dwyer, D. J. & Ganster, D.C. (1993 ). Effects of stressful job demands and control on physiological and attitudinal outcomes in hospital setting, *Academy of Management Journal*, 36, 289-318.

Furnham, A., & Ribchester, T. (1995). Tolerance of Ambiguity: A Review of the Concept, Its Measurements and Applications. *Current Psychology: Developmental, Learning, Personality, Social*, 14 (3), 179-199.

Fiedler, K., Walther, E., Freytag, P., Nickel, S. (2003). Inductive reasoning and judgment Interference: Experiments on Simpson's Paradox. *Personality and social psychology bulletin*, 29, 14-27.

Gergen, K. (1999). Toward a postmodern psychology. In S. Kvale; *Psychology and Postmodernism*. London: Sage Pub. Pp. 17-30.

Gergen, K.J. (2001). Psychological science in a postmodern context. **Amer. Psychologist**. 56 (10), 803-813.

Giddens, A. (1991). *Modernity and self-identity*. Stanford Calif. Stanford University Press.

Gleick, J. (1988). *Chaos. Making a new science*. Penguin Books.

Goldratt, E. M. (1997). *Critical Chain*. The North River Press, USA.

Harvey, J., & Miller, E. (2000). *Loss and Trauma*. Philadelphia: Taylor & Francis

Harvey, J.H. Ickes, W. and R. F. Kidd (eds.), *New Directions in Attribution Research, Vols. 1-3*, Lawrence Erlbaum Associates, Hillsdale, N.J., 1976, 1978, 1981.

Hatch, M. J. & Ehrlich, S. B. (1993). Spontaneous humor as an indicator of paradox and ambiguity in organizations. *Organization Studies*, 14, pp 505.

Hazan, H. (1994). *Old age: Constructions and deconstructions*. Cambridge University Press.

Heidegger, M. (1962). *Being and time*. New York: Harper & Row.

Heider, F. (1958) *The Psychology of Interpersonal Relations*, New York: Wiley

Herman, J.L. (1992). *Trauma and recovery*. New York: Basic Books

Hess, T. M. (2001). Ageing-related influences on personal need for structure, *International Journal of Behavioral Development*, 25 (6), 482-490.

Hochschild, A. R. (1983). *The managed heart: Commercialization of human feeling*. Berkeley: University of California Press.

- Jackson, P. W. & Messick, S. (1965). The Person, the Product, and the Response: Conceptual Problems in the Assessment of Creativity. *Journal of Personality*, **33** (3), 309-329.
- Jameson, F. (1984). Postmodernism, or the cultural logic of late capitalism. *New Left Review*, 146: 59-92
- Kahana, B., Hare1, Z., & Kahana, E. (1988). Predictors of psychological well-being among survivors of the Holocaust. In J. E Wilson, Z. Harel, & B. Kahana (Eds.), *Human adaptation to extreme stress: From Holocaust to Vietnam* (pp. 171-192). New York: Plenum.
- Kahn, R. (1994). Opportunities, aspirations and goodness of fit. In Riley, M., Kahn, R. & Foner, A. (Eds.) (1994). *Age and structural lag*. (pp.37-53). New York: Wiley.
- Karp, D. (1988). A decade of reminders: Changing age consciousness between fifty and sixty years old. *The Gerontologist*, 28 (6), 727-738.
- Kessler, R. C., Sonnega, A., Brommet, E., & Nelson, C. B. (1995). Posttraumatic Stress Disorder in the National Comorbidity Survey. *Archive of General Psychiatry*, **52**, 1048-1060.
- Kegan, R. (1998). Epistemology, expectation and aging. In Lomranz, J. (Ed.) (1998). *Handbook of Aging and Mental Health: An Integrative Approach*. New York: Plenum Publishing Corporation. Pp. 197-216.
- Kierkegaard, S. (1957). *The concept of dread*. Princeton University Press.
- Koch, E. & Shepperd, J. (2004). Is Self-Complexity linked to better coping? A review of the literature. *Journal of Personality*, 72 (4), pp. 727-760
- Kramer, D.A. (1983). Post-formal operations? A need for further conceptualization. *Human Development*, **26**, 91- 105.
- Kramer, D. & Woodruff, D. (1986). Relativistic and dialectic thought. *Human Development*, 29,280-290.
- Krystal, H. (1988). *Integration and self-healing*. Hillsdale, NJ: The Analytic Press
- Kruglanski, A. (1989). *Lay epistemics and human knowledge: Cognitive and motivational basis*. New York: Plenum.
- Kruglanski, A. (2004). *The psychology of close mindedness*. N.Y: Psychological Press.
- Krystal, H. (1988). *Integration and self-healing*. Hillsdale, NJ: The Analytic Press.
- Kuhn, Thomas (1996). *The Structure of Scientific Revolutions*, 3<sup>rd</sup> Ed. Chicago: University of Chicago Press.
- Kumin, I (1978). Developmental aspects of opposites and paradox. *International Review of Psycho-analysis*, 5, 477-483.
- Labov, W. (Ed.). (1972). *Language in the inner city: Studies in the black English vernacular*. Philadelphia: University of Pennsylvania
- Labov, W. (Ed.). (1972). *Language in the inner city: Studies in the black English vernacular*. Philadelphia: University of Pennsylvania

- Langer, E. (1989). *Mindfulness*. Perseus Books.
- Levison, A. (1974). *Knowledge and Society*. New York: The Bobbs-Merrill Pub.
- Linville, P. W. (1987). Self-Complexity as a Cognitive Buffer Against Stress-Related Illness and Depression. *Journal of Personality and Social Psychology*, **52** (4), 663-676.
- Lomranz, J., Shmotkin, D., Zechovoy, A. & Rosenberg, E. (1985) Time orientation in Nazi concentration camp survivors: Forty years after. *American Journal of Orthopsychiatry* (55), 230-236.
- Lomranz, J. (1995). Endurance and living: Long-term effects of the Holocaust. In Hobfoll, S., & De Vries, M. (Eds.) *Extreme Stress and Communities: Impact and Intervention*. Boston Kluwer Academic Pub., pp. 325-352.
- Lomranz, Jacob. (1998). An Image of Aging and the Concept of Aintegration. In Lomranz, J. (Ed.). *Handbook of aging and mental health: An Integrative Approach*. Plenum Press, New-York, 1998.
- Lomranz, J. (2000). The skewed image of the Holocaust survivor and the vicissitudes of psychological research. *Echoes of the Holocaust*. 6, 45-57.
- Lomranz, J. (2002) The Mind of the Beholder and the Eye of Aintegration: How Social Scientists and Psychotherapist Approach Narratives. *The 2<sup>nd</sup> Annual Herceg International Conference on Aging*. Tel Aviv University.
- Lomranz, J. (2005). The triangular relationships between: The Holocaust, Aging and Narrative Gerontology. *International Journal of Human Development and Aging*, Vol. 60 (3) 255-267.
- Lomranz, J. (in press). Aintegration: A Complementary Paradigmatic Approach in Comprehending Holocaust Survivors. In: Brunner, J., & N. Zajde (Eds.) *The Holocaust as Paradigm of Trauma for the 20<sup>th</sup> Century*. Goetingen: Wallstein Verlag.
- Liotard, J. (1988). *The postmodern condition: A report on knowledge*. Minneapolis: University of Minnesota Press.
- Maslach, C., Schaufeli, W. B. & Leiter, M. P. (2001). **Job Burnout**. In S. T. Fiske, D. L. Schacter, & C. Zahn-Waxler (Eds.), *Annual Review of Psychology*. **52**, pp. 397-422.
- McDougal, W. (1921). *An Introduction to Social Psychology*. Boston: Luce.
- McGinn, R. E. (1991). *Science, Technology, and Society*. Englewood Cliffs, N.J.: Prentice-Hall.
- Morgan, H. J., & Janoff-Bulman, R. (2004). Positive and Negative Self-Complexity: Patterns of Adjustment Following Traumatic Versus Non-Traumatic Life Experiences. *Journal of Social and Clinical Psychology*, **13** (1), 63-85.
- Murphy, P. & Pauleen, D. (2007). Managing paradox in a world of knowledge. *Management Decision*, 45, 1008-1022.
- Nagel, T. (1992). The absurd. In N. Jecker (Ed.). *Aging and ethics*. Totowa, NJ. Humana Press. Pp.375-388.

- Nadler, A. (2001). The victim and the psychologist: Changing perceptions of Israeli Holocaust survivors by the mental health community in the past 50 years. *History of Psychology*, 4, 151-181.
- Nahapiet, J. & Ghoshal, S. (1998). Social capital, Intellectual capital and the Organizational Advantage. *Academy of management Review*, 23, 242-266.
- Neuberg, S., Judice, T., & West, S. (1997) What the need for closure scale measures and what it does not measure: Towards differentiating among related epistemic motives. *Journal of Personality and Social Psychology*. 72, 1396-1412
- Neuberg, S. L. & Newsom, J. T. (1993). Personal Need for Structure: Individual Differences in the Desire for Simple Structure. *Journal of Personality and Social Psychology*, 65 (1), 113-131.
- Nisman, H.(1995).*Soul and memory* (Hebrew). Kibbutz Ein Dor: Benei Shaul.
- Parry, A. & Doan, R. (1994). *Story re-visions: Narrative therapy in the postmodern world*. New York: The Guilford Press.
- Patanakul, P. & Milosevic, D. (2008). A Competency Model for Effectiveness in Managing Multiple Projects. *Journal of High Technology Management Research*. 18, 118–131.
- Peng, K. & Nisbett, R. E. (1999). Culture, Dialectics and reasoning about Contradiction. *American Psychologist*, 54, 741-754.
- Perry, W. (1970). *Forms of ethical and individual development in the college years*. New York: Holt, Rinehart and Winston.
- Osgood, C., Suci, B. & Tannenbaum, P. (1957). *The measurement of meaning*. Urbana: University of Illinois Press.
- Pizer, S. (1998). *Building Bridges: The negotiation of paradox in psychoanalysis*. Hillsdale, NJ. The Analytic Press.
- Punamäki, R. L., & Puhakka, T. (1997). Determinants and Effectiveness of Children's Coping with Political Violence. *International Journal of Behavioral Development*, 21 (2), 349-370.
- Punamäki, R. L., Qouta, S., & El-Sarraj, E. (2001). Resiliency Factors Predicting Psychological Adjustment after Political Violence among Palestinian Children. *International Journal of Behavioral Development*, 25 (3), 256-267.
- Radloff, L. S. (1977). The CES-D scale: a self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Riley, M., Kahn, R. & Foner, A. (Eds.) (1994). *Age and structural lag*. New York: Wiley.
- Riegel, K.(1973). Dialectic operations: The final period of cognitive development. *Human Development*. 16: 346-370.
- Rybash, J., Hoyer, W. & Roodin, P. (1986). *Adult cognition and aging*. New York: Pergamon Press.
- Sartre, P. (1943). *Being and nothingness*. New York: Penguin.
- Schetky, D. (1990) A Review of the Literature on the Long-Term Effects of Childhood Sexual Abuse. In: *Incest-Related Syndromes of Adult Psychopathology*, Ed. Richard P. Kluft, Washington DC & London: American Psychiatric Press

- Schnake, M.E. (1983). An empirical assessment of the effects of affective response in the measurement of organizational climate. *Personnel Psychology*, 36: 791-807.
- Shirom, A. (2003). Job-related burnout. In J. C. Quick & L. E. Tetrick (Eds.). *Handbook of occupational health psychology*. (pp. 245-265). Washington, DC: American Psychological Association.
- Shmotkin, D. & Lomranz, J. (1998). Subjective well-being among Holocaust survivors: An examination of overlooked differentiation. *Journal of Personality and Social Psychology*, 75(1), 141-155.
- Simonton, D.K. (2000). Creativity: Cognitive, Development, Personal and Social aspects. *American Psychologist*, 55, 151-158.
- Sinnott, J.D. (1998). *The development of logic in adulthood: Postformal Thought and its applications*. New-York: Plenum Press.
- Solomon, Z., Benbenishty, R., Neria, Y., Abramowitz, M., Ginsburg, K. & Ohry, A. (1993). Assessment of PTSD: Validations of the revised PTSD inventory. *Israel Journal of Psychiatry and Related Sciences*, 30, 110-115.
- Steinberg, J. A., Pineles, S. L., Gardner, W. L., & Mineka, S. (2003). Self-Complexity as a Potential Cognitive Buffer among Abused Women. *Journal of Social and Clinical Psychology*, 22 (5), 560-579.
- Shmotkin, D. (2000). Happiness in the Face of Adversity: Reformulating the Dynamic and Modular Bases of Subjective Well-Being.
- Snaff, A. (2003). The relationship between aintegration, creativity and oxymoron's. M.A. Theses. Tel Aviv Uniuersity.
- Suedfeld, P., Fell, C., & Krell, R. (1998). Structural Aspects of Survivor's Thinking about the Holocaust. *Journal of Traumatic Stress*, 11 (2), 233-336.
- Sumalla, E., Ochoa, C., & Blanco, I. (2009). Posttraumatic growth in cancer: Reality or illusion? *Clinical Psychology Review*, 29, 24-33.
- Tedeschi, R. G. & Calhoun, L. G. (2007). Evaluating resource gain: Understanding and misunderstanding posttraumatic growth. *Applied Psychology: An international review*, 56, 396406.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient Individuals Use Positive Emotions to Bounce Back from Negative Emotional Experiences. *Journal of Personality and Social Psychology*, 86 (2), 320-33
- Valliant, G. (1993). *The wisdom of the ego*. Cambridge, Mass. Harvard University Press.
- Watzlawick, P., Beavin, J., & Jackson, D.(1967)*Pragmatics of human communication*. New York: W.W. Norton.
- van der Kolk, B., Mcfarlane, A., & Weisaeth, L. (Eds.). (1996) *Traumatic stress: The effects of overwhelming experience on mind, body, and society*. N.Y: Guilford. Pp. 359-377
- Schwartz, B. (2003). *The Paradox of Choice: Why More Is Less*. New York: Harper.

Webster, D., & Kruglanski, A. (1994). Individual differences in need for cognitive closure. *Journal of personality and Social Psychology*, 67, 1049-1062.

Weiss, D. S., & Marmar, C. R. (1997). The Impact of Event Scale - Revised. In J. P. Wilson, & T. M. Keane (Eds.), *Assessing Psychological Trauma and PTSD*. New York: The Guilford Press, 399-411.

Westenholtz, Ann. (1993). Paradoxical thinking and change in frames of references. *Organization Studies*, 14, pp 37.

Winnicott, D. (1971). *Playing and reality*. New York: Basic Books.