



**SAPIENZA**  
UNIVERSITÀ DI ROMA

**FACULTY OF MEDICINE AND PSYCHOLOGY**  
**Department of Dynamic and Clinical Psychology**

**Phd Dissertation in Dynamic and Clinical Psychology**  
**XXX Cycle**

**Using a clinical process consultation in interpersonal skills training:  
the impact of symbolic and affective dimensions on learning outcomes in  
organizations**

**Candidate**

**Chiara Fregonese**

**969431**

**Tutor**

**Prof. Viviana Langher**

**Co-tutor**

**Prof. Richard Little**

**2016/2017**

## Acknowledgements



IMPACT

Nothing of this research work would have been possible if I had been alone.

Firstly, the research was entirely funded by Impact Italia Srl with the aim to identify factors of effectiveness of its own training and consultancy practices. This operation was innovative, bold and at times challenging for all the ones involved. Nonetheless, I feel the process, besides the outcome, was valuable and worth the effort, because of the insights, reflection and tools it generated.

Within this peculiar framework, during the last three years several actors entered this research story. I will list them in an uneven chronological order as if they were actors within an intense play.

Thanks to:

*Viviana Langher*, for the visionary glimpse, the fine and yet pragmatic spirit, and the constantly affectionate guidance

*Elena Ceriotti*, for the exploratory attitude, the decision, the availability, the bet

*Giuseppe Florimonte, Mario Gianandrea, Francesca Filzi, Sara Baranzini, Fabio Sparatore* and *all the Impact Italia staff* for sponsoring the project in many ways: from ideation to implementation

*Richard Little*, for the provision of witty challenges, inputs and digressions

*Raffaella Guglielmotti*, for the inner curiosity and openhandedness

*Penelope Mavor*, for the constant backing and the precious refining

*Andrea Caputo*, for the invaluable and relentless support, knowledge, friendship

*Daria Rostirolla, Tiziano Sposato, Valentina Nannini* for being friends, colleagues, reviewers

*Alessandro Mocca* and *Sarah Bonomi*, for the will to contribute and participate, even at a distance

*Filippo Tansini*, for showing love in tough moments, solving issues in the *doi* era, and deeply listening at all times

*The ones I did not mention*, if you feel I could have listed you here... Sorry, I probably should!

*Chiara*

## Summary

<b>Introduction and indications for readers</b>	<b>1</b>
---	----------

### Chapter 1

<b>1. Work Symbolic Motive Scale (Work-SMS): development and validation of a measure of Affective Investment at work</b>	<b>3</b>
<i>1.1 Introduction</i>	<i>3</i>
<i>1.1.1 Affective investment on the work context: an endowing process of good qualities</i>	<i>4</i>
<i>1.1.2 Symbolic motives as components of affective investment</i>	<i>6</i>
<i>1.1.3 Affective investment declined over four symbolic motives of Achievement, Affiliation, Power and Autonomy</i>	<i>8</i>
1.2 Aim of the study	11
1.3 Methodology	12
<i>1.3.1 Development of the scale</i>	<i>12</i>
<i>1.3.2 Content Validity</i>	<i>13</i>
<i>1.3.3 Face validity</i>	<i>13</i>
1.4 Study 1	14
<i>1.4.1 Measures</i>	<i>15</i>
<i>1.4.2 Procedures</i>	<i>15</i>
<i>1.4.3 Results</i>	<i>16</i>
1.5 Study 2	20
<i>1.5.1 Measures</i>	<i>21</i>
<i>1.5.2 Procedures</i>	<i>22</i>
<i>1.5.3 Results</i>	<i>23</i>
1.6 General Discussion	<b>27</b>
1.7 Limitations of the study	<b>31</b>
1.8 Implications for practice	<b>31</b>

**Chapter 2**

<b>2. Italian Translation of the Questionnaire for professional Training Evaluation (Q4TE)</b>	<b>33</b>
2.1 Introduction	33
2.2 Aim of the study	35
2.2.1 <i>Underlying factor structure</i>	35
2.2.2 <i>Differential and discriminant validity</i>	36
2.3 Methodology	37
2.4 Study 1	37
2.4.1 <i>Translation of Q4TE into Italian</i>	37
2.4.2 <i>Content validity</i>	38
2.4.3 <i>Face validity</i>	38
2.4.4 <i>Participants</i>	39
2.4.5 <i>Measures</i>	40
2.4.6 <i>Data Analyses</i>	40
2.4.6 <i>Results</i>	41
2.5 Study 2	42
2.5.1 <i>Measures</i>	42
2.5.1 <i>Participants</i>	42
2.5.2 <i>Data Analysis</i>	42
2.5.2 <i>Measures</i>	42
2.5.3 <i>Data Analysis</i>	42
2.5.3 <i>Results</i>	44
2.5.4 <i>Results</i>	44
2.6 General Discussion	48
2.7 Limitations of the study	<b>50</b>
2.8 Implications for practice	<b>52</b>

## Chapter 3

### **3. The influence of Affective Investment, Clinical Process Consultation and Participants'**

<b>Expectations on Learning Outcomes: a longitudinal study on interpersonal skills training</b>	<b>54</b>
3.1 Introduction	54
3.1.1 <i>Literature Review</i>	55
3.1.2 <i>Learning levels and training transfer</i>	57
3.1.3 <i>Interpersonal skills development: a peculiar type of training with many respects</i>	58
3.2 Aim of the study	60
3.2.1 <i>Participants' expectations</i>	60
3.2.2 <i>Affective Investment and Symbolic Motives</i>	61
3.2.3 <i>Clinical process consultation</i>	63
3.2.4 <i>Hypotheses</i>	66
3.3 Methodology	67
3.3.1 <i>Interventions recruitment procedures</i>	67
3.3.2 <i>Sample</i>	68
3.3.3 <i>Measures</i>	68
3.3.4 <i>Data Analysis</i>	73
3.4 Results	74
3.5 General Discussion	84
3.6 Limitations of the study	90
3.7 Implication for practice	91
 <b>4. Conclusions from a clinical point of view</b>	 <b>95</b>
 <b>References</b>	 <b>97</b>

## Introduction and indications for readers

This work stems from the desire to explore the organizational world, and in particular organizational training, through a clinical and psychodynamic perspective. This desire is born within a wider clinical psychology tradition (Carli, 2006a; Carli & Paniccchia, 1981, 1999, 2003) that conceives clinical action as a development-oriented intervention emerging from the reflective capacity to *think emotions*, instead of acting them out (Carli, 2006b; Carli & Giovagnoli, 2011; Matte Blanco, 1975). In this perspective, clinical psychology moves beyond the therapeutic setting in order to intervene and promote change and development in a wider set of contexts, from which the organizational ones are not exempt. Attempts in this sense have already been made by other authors (Schein, 1995; Argyris & Schon, 1997) whose contribution I use and integrate in order to obtain a deeper understanding of human dynamics and to achieve a stronger intervention potential within the organizations, in particular within the learning and development processes.

Development processes, in this work, are not conceived as aiming to pre-determined and normative outcomes; rather they are conceptualized as the possibility, for individuals and groups, to stop reiterating ineffective courses of action by introducing *thought* into emotional symbolizations and reactivity (Carli, 2006b). Emotions and affects are here conceived as relational phenomena, stemming from intersubjective sense making and symbolization processes originating by the engagement and the interaction with a context and with the relationships embedded in it (Fornari, 1977; Mannarini, Ciavolino, Nitti & Salvatore, 2012). These type of emotions can be thought, thanks to an increase in the capacity to observe and think the affective process of object connotation, motivating and pushing us to action (Matte Blanco, 1975; Paniccchia, Giovagnoli & Giuliano, 2008).

In our view, developmental initiatives within the organizations should aim for this reflective goal. In exploration of these processes, in this work I focus on a specific type of training (interpersonal skills development), which aims at developing participants' capabilities to productively interact with

each other at work. This type of intervention can be led in a variety of ways, ranging from standard and “expert-led” educative initiatives to more clinical psychosocial interventions, stimulating the capability to promote thought processes within emotional and relational dynamics.

Within a general attempt to promote intervention evaluation in organizational training initiatives, as an intrinsically reflective practice (Child, 2015), I have built this work to integrate organizational training research with new constructs, results and indications, aimed at a vast population of practitioners operating in the field.

In order to facilitate the utilization of my findings, I have conceived this work as made of three different research papers, all connected but yet all readable independently.

*Chapter 1* focuses on the conceptualization of four specific affective symbolizations of the work context and identifies a related measurement tool, which – for its particularly agile format – can be used in training or in other organizational analysis initiatives.

*Chapter 2* describes the validation of a training evaluation tool, which is suitable to measure interpersonal or soft skills training, while keeping short and easily usable in a variety of organizational contexts.

*Chapter 3* proposes an observational field study, aimed at analyzing the influence and the interaction of affective symbolizations, clinical consultancy practices, and trainees’ features and expectations, within interpersonal skills training interventions.

## Chapter 1

### **Work Symbolic Motive Scale (Work-SMS): development and validation of a measure of Affective Investment at work**

#### **1.1 Introduction**

How we describe our work context with a few adjectives may say a lot about how we interpret it as a meaningful reality. This process of meaning making is first of all an affective process, that enables our organizational world to be signified by emotional values (Modell, 2003), and that ultimately results in our verbal expression. Several studies have thus far analyzed the connection between affective dimensions related to work contexts and verbal expression of emotional states, referring to positive/negative affect (Warr, 2011; Warr, Bindl, Parker & Inceoglu, 2014; Herrbach, 2006), pleasure/displeasure and low/high activation (Remington, Fabrigar & Visser, 2000; Madrid & Patterson, 2014), affective well-being (Daniels, 2000; Diener, Oishi & Lucas, 2009; Van Katwyk, Fox, Spector & Kelloway, 2000), and affective reactions to job characteristics (Saavedra & Kwun, 2000). The peculiarity of these works is that they refer to individual affective states and often rely on the conscious and manifest meaning of the verbal forms.

In this work we use the psychoanalytical construct of affective investment and affective symbolization (Fornari, 1979; Carli, 1987, 2013; Voronov & Vince, 2012) to provide a different perspective around the interpretation of verbal descriptions of affects at work (Carli, 1995; Carli & Panaccia, 1999, 2004; Carli & Giovagnoli, 2011; Salvatore & Zuitton, 2011). We also propose the four specific dimensions of Achievement, Affiliation, Power and Autonomy, traditionally related to motivation theories (McClelland, 1961; Deci & Ryan, 2010), to provide information about four particular ways to symbolize and relate to the work context, beyond the individual motivational drives.

Aware that, besides objective job features, the symbolic perception of an organization can play a relevant role in determining its attractiveness (Chapin, 2015; Lievens & Highhouse, 2003; Lievens,



2007; Slaughter, Mohr, Zickar, & Highhouse, 2004), our purpose is to shed light on the symbolic, affective and often unconscious dimensions that influence the relationship between the individual and her/his work context.

In order to support this perspective, we would like to propose the Work-SMS, as an agile measurement tool highlighting some key features of these dimensions.

#### *1.1.1 Affective investment on the work context: an endowing process of good qualities*

In institutional and cultural studies, the concept of affective or emotional investment is used to describe the reinforcement phenomenon by which affectively invested objects matter more than non-invested ones, making such objects become salient to the psychic world and, circularly, worth of such an investment (Grossberg, 1992; Voronov & Vince, 2012).

In either historical or more recent psychoanalytical studies, a drive to work (described by Freud as one of the two foundations of communal life and human society, besides love) has always been acknowledged as a possibility to sublimate a large amount of unconscious libidinal components, whether narcissistic, aggressive or even erotic (Freud, 1930; Marcus, 2017). This makes the workplace an object that is gifted with relevance for the psychic reality, sustained by a strong libidinal investment. Such affective dynamic “does something more than connoting a given experience; affect gives value of life to the world. Being affectively activated means producing a kind of vital commitment – it means experiencing the world as something animate, engaging us in a relationship” (Salvatore & Freda, 2011, p. 126).

Actually, as a relevant psychic object, each work context engages us in a relationship and can be endowed with different qualities or values representing “motivating ends” (Western, 1991, p. 437) for the subject engaged in such relationship (Frijda, 1988). Our world thus becomes a “labeled” place, categorized – and therefore created - by assigning to it values, interests and qualities which are marked by feelings and emotions thanks to a symbolic associative process (Modell, 2003).

The specific qualities ascribed to the work context may refer to different symbolic domains and can be combined according to several factors, such as organizational features, organizational culture, employees' motivations, perceptions or interpretations; these specific and local meanings, motives and desires are encompassed within a general factor indicating how much that context is affectively invested or, in other words, is endowed with positive values and is psychologically salient to us (Modell, 2003; Freeman, 2000; Salvatore, 2016).

We chose to name affective investment this endowing process of gratifying qualities and meanings ascribed to the work context which make it emotionally invested or perceived as satisfactory and worth of preservation, credit, commitment or, if lacking, disinvestment and disruption (Voronov & Vince, 2012). This process of quality connotation is not an explicit and conscious activity as it deals with immediate mental associative processes. Several studies have thus far analyzed how unconscious associations to positive values or attributes to an object of reality or goal can increase the expenditure of effort and the investment on it, yielding also specific motivational drives according to the different stimuli that the environment makes available (Aarts, Kuster & Marien, 2008; Dijksterhuis & Aarts, 2010; Voronov & Vince, 2012). Therefore, it is the individual-environment interaction, and not just individual drives or beliefs, that should allow the work-context to be perceived as effort-worthy and desirable (in a “scenario of being related to something good” – Salvatore, 2016, p. 45).

Previous studies have actually found that external organizational conditions (i.e. self-employment vs. employment) (Thompson & Kopelman, 1992) or role (i.e. managerial vs. non-managerial) (Kònya, Matić, & Pavlović, 2016) can result in higher levels of job satisfaction and professional involvement. Other studies have highlighted how positive affective thrusts can be associated to other variables related to professional and career development (i.e. career adaptability) (Fiori, Bollman, & Rossier, 2015).

Indeed, professional development, job satisfaction and career adaptability are among the main variables that we would thus expect to be associated to affective investment, which should also add explanatory power to models considering only individual-related variables (i.e. work self-efficacy).

### *1.1.2 Symbolic motives as components of affective investment*

When the work context – as a relevant psychic object – is affectively invested, it is also provided with a “specific affective intentionality that calls for the activation of an adequate relationship” (Carli & Giovagnoli, 2011, p. 117). This means that such process of activation will result in actions and thoughts that are considered coherent with such intentionality. We call symbolic motive this qualitative indication about the main relational dynamics evoked and subjectively experienced as coherent and meaningful within the work context. The set of symbolic motives featuring a context compose a qualitative characterization of the quantitative affective investment towards it.

The concept of symbolic motive was crafted as the main product of the affective symbolization process, born within the psychoanalytical tradition (Fornari, 1977; Carli & Panicia, 1981; Salvatore, et al., 2003; Carli, 2006a). Affective symbolization is used to describe a specific signifying feature of the human mind, originating from its unconscious way of functioning (Fornari, 1979) and aimed at ascribing an affect-mediated meaning to the world. This meaning, albeit primitive and rough (i.e. good/bad or friend/foe), helps adaptation through an immediate orientation function. Alongside with this process, operational symbolization, related to the conscious/rational way of mind functioning, works upon the reality principle and on publicly shared codes (i.e. language). Both processes interact within the mind’s signifying function and emerge within the human language (Fornari, 1977, 1979). The innovative intuition of Fornari’s conceptualization is the attribution - to both the conscious and unconscious mind - of a sense-making function, constantly oriented to giving meaning to the external environment (Mossi & Salvatore, 2011; Carli & Panicia, 2004; Fornari, 1979). The interaction between the affective symbolization (mainly based on unconscious mind functioning) and perception (mainly based on the cognitive and conscious mind functioning) leads to a fundamental process of

affective categorization of reality, also resulting in the language we use to describe it (Carli, 1995; Carli & Panaccia, 2004; Carli & Giovagnoli, 2011). This constant interplay results both in a reality testing-based knowledge and in an affective connotation of the context (Salvatore & Freda, 2011), generating context-specific symbolic motives. This symbolic process provides the opportunity for a person or a social group to produce a shared representation of the context, allowing to immediately orientate in it, make the unfamiliar familiar (Moscovici, 1988), and master a common set of meanings and codes enabling understanding and adaptation. When this happens, we are equipped with a stable, synthetic and meaningful representation of reality that is generally shared and able to guide our actions and decisions within it (Salvatore & Venuleo, 2009).

This construct offers a theoretical link between the intra-psychic world and the external context, conceived as constantly shaped and co-created by the ones who interact in it by a symbolic/unconscious and a rational/conscious agreement on how that context is, and which behaviors are adaptive within it.

To use an example, when asked to describe our work context with a few words, we may come up with different descriptions of it according to its ostensible features (goals, targets, roles, clients, etc.) and to our subjective – and often more tacit – perception that such context has qualities, or capability to satisfy some specific needs or desires, which may, in turn, justify our behavioral investment towards it. We may describe it as “friendly”, “humane”, “effective” and “productive” if we feel that, for instance, through its organizational or relational practices, it is guaranteeing interpersonal closeness or availability but also productivity and goal attainment. The overall indication would be of a satisfying and positive work context representation, symbolically worth of affective credit and investment. Furthermore, besides denoting the overall perception of “goodness” of such work-context, the semantic dimensions of the chosen adjectives may also say something about which main relational and behavioral dynamics are more aroused within it (i.e. affiliation and achievement).

### *1.1.3 Affective investment declined over four symbolic motives of Achievement, Affiliation, Power and Autonomy*

For the Work-SMS we wanted to build a scale capable to detect a general affective representation of the work context, explaining the intensity of the affect towards it, while identifying some basic symbolic motives, produced by the affective symbolization process, that could reveal how such context is affectively perceived by its members and which relational needs are more solicited and satisfied within it.

In line with several studies around motivation (McClelland & Boyatzis, 1982; Deci & Ryan, 2010; Lammers, Stoker, Rink & Galinsky, 2016), organizational cultural or climate features (Goldman, Balthazard, Cooke & Potter, 2006; Litwin & Stringer, 1968), and with more recent pieces of psychosocial and psychodynamic research (Carli & Panicia, 2003; Langher, Brancadoro, D'angeli & Caputo, 2014), we have chosen to refer to McClelland's motives - Affiliation, Achievement and Power - later integrated with Autonomy (Steers & Braunstein, 1976; Deci & Ryan, 2010; Lammers et al., 2016) as relevant, basic and recurrent motivations to social relation within the work context, concurring to create specific symbolic motives that organize the relationships within it, both at the conscious and unconscious level. The choice of these four motives was due to the fact that, within human group interaction, dimensions such as relational bonding, goal achievement, exercise of power and autonomy are fundamental drivers of the social dynamic (Bion, 1961).

*Achievement* is a drive to mastering complex challenges, finding solutions, overcoming goals, and meeting high standards of quality or success (McClelland & Boyatzis, 1982). It has often been associated to higher productivity levels in organizational contexts (Litwin & Stringer, 1968; Cooke & Rousseau, 1988; Goldman et al., 2006; Simosi & Xenikou, 2010), entrepreneurial attitude (Prenestini & Lega, 2013) and career adaptability (Su & Dong, 2015; Guo et al., 2014). Achievement as a work symbolic motive refers to an affective representation of the context as being generative and guaranteeing the possibility to reach productive objectives.

*Affiliation* is a drive to “establishing, maintaining, or restoring a positive affective relationship” (McClelland, 1961, p. 160). Amongst the first motives to appear in human development (Lichtenberg, 2013), affiliation was empirically demonstrated to enable stronger relationships, mutual support, openness and innovation (Van Dyne & Le Pine, 1998; Fisher, Ferreira, Assmar, Redfors & Harb, 2005), sometimes reducing team’s performance-orientation or job-responsibility attitudes (Guillen Ramo, 2009; Hartnell, Ou & Kinicki, 2011). Affiliation as a work symbolic motive refers to an affective representation of the context as acceptant and taking charge of the person, guaranteeing a safe environment in which the relational dimension is prevalent.

*Power* is a drive to influencing, shaping and determining others’ decisions or actions. In some studies associated to symptoms of an aggressive-defensive (Goldman, 2006; Bion, 1961) or a highly hierarchical culture (Hofstede, 1980; Daniels & Greguras, 2014), the power dimension can also be seen as the organization’s adaptive capacity to shape the outside environment and lead change within it (Spaltro, 1984). Power as a work symbolic motive refers to an affective representation of the context as prestigious and having influence over the environment, guaranteeing might, dominance, and authority.

*Autonomy* is a drive to guaranteeing self-development, self-determination and freedom from others’ control. In recent studies (Lammers et al., 2016), autonomy was explored and conceived as a particular and substantially different form of power: the power to be free from others’ influence. In human development, autonomy is seen as a key drive towards freedom, independence and mastery in adult life (Deci & Ryan, 2010). Autonomy as a work symbolic motive refers to an affective representation of the context as resisting opponent external influences and having control over decisions.

In our perspective, the four above described dimensions coexist, at different levels of intensity, interplaying with both the external conditions and the affective meanings shared by the ones who interact within the same work context. As already said, the product of this interplay can be detected

through the affective investment dimension, which encompasses the four symbolic motives within a general measure of affect intensity.

No dimension should be considered maladaptive as they all concur to generate affective investment on the work context through the perception of its overall ‘goodness’; however their combination can provide information about which dimensions sustain it the most.

For instance, previous research and clinical experience in organizations shows that work contexts described high in affiliation and autonomy orientation and low in achievement may assure group internal cohesion, potentially at the expenses of its productive function (Hartnell, Ou & Kikicki, 2011; Carli & Giovagnoli, 2011; Litwin & Stringer, 1968). High levels of achievement and high levels of affiliation may be indicators of a context strong orientation towards goal accomplishment through high levels of commitment and mutual support (Hartnell et al., 2011; Cawsey, 1973; McClelland, 1961). High levels of power and low levels of achievement can indicate a focus on the context’s prestigious status regardless of its capacity to produce value (Carli & Giovagnoli, 2011; Carli & Panaccia, 2004).

These patterns arise from the interaction amongst individuals with their work context and thus will definitely be influenced both by the external organizational and social conditions (i.e. organizational role, function, employment status, etc.) and by the symbolic interpretation co-created by the persons interacting in such conditions (perceived inclusion/exclusion, effectiveness, influence, independence). The Work-SMS aims thus at giving us “clues” of how a context is emotionally perceived by the ones who share it, beyond the simple positive/negative affect. Therefore, an abductive method (Valsiner, 2014) , typical of the psychodynamic approach, is strongly suggested to interpret the scale’s results.

## 1.2 Aim of the study

The aim of this work is to develop a conceptualization and a related brief measurement tool capable of exploring a general dimension of affective investment related to the work context (Work-SMS's general scale), composed by four consistent and well-studied interplaying sub-dimensions (Work-SMS's four sub-scales).

In order to gain a deeper understanding of how affective investment and symbolic motives influence relevant variables for work organizational functioning and related outcomes, we led two studies based on different samples - newly-qualified psychologists enrolled in a career research program (study 1) and adult working participants (study 2). Both samples were composed by Italian subjects. These two studies allowed us to collect different forms of construct and convergent evidence of validity. Internal consistency and test-retest reliability were also evaluated.

Study 1 on newly qualified psychologists was used to test the following hypotheses:

Hypothesis 1. Affective Investment is positively correlated to career adaptability, as a convergent measure of investment on the professional context;

Study 2 on an adult working population was specifically used to test the following hypotheses:

Hypothesis 2a. Affective Investment has incremental predictive validity on professional development (measured by external objective indicators), beyond other individual career-related variables (i.e. work self-efficacy and career adaptability);

Hypothesis 2b. Affective Investment remains a significant predictor of professional development outcomes even when other constructs (i.e. work self-efficacy and career adaptability) are considered;

Hypothesis 3. Affective Investment positively correlates with job satisfaction (currently and after one month);



Hypothesis 4. Affective Investment varies according to context-related variables such as employment status (self-employment vs. employment) and organizational position (managerial roles vs. non-managerial roles), as a result of different experiences of work-related affective investment.

### **1.3 Methodology**

#### *1.3.1 Development of the scale*

In order to develop the scale, affective investment was operationally defined as the emotional connotation of the context as having positive qualities, and evoking emotions linked to mastery, goal accomplishment and capability (achievement), acceptance, intrinsic goodness and sense of belonging (affiliation), might, status and possibility to condition others' behaviors or decisions (power ), control of one's own freedom, self-determination and self-focus (autonomy).

In order to create the scale items, we chose adjectives instead of sentences for their capacity to evoke immediate affective associations towards an object more than verbs, nouns or other lexical forms (Clore, Ortony & Foss, 1987; Ortony, Clore & Foss, 1987).

Although this is obviously not the first time that adjectives are used to gauge affects within the work context, previous literature shows that so far they have mainly been used to describe individual positive/negative affect (Watson, Clark & Tellegen, 1988) or basic emotions (i.e. happiness, anger, sadness etc.; Van Katwyk et al., 2000), social representations (Clemence, Doise & Lorenzi-Cioldi, 2014) or cultural configurations through a-theoretical lexical approaches (Chapman & Chapin, 2014).

Differently from the above cited works, we chose to use adjectives that could account for symbolic and relational dimensions related to mastery, sense of belonging, influence and independence. Such adjectives were selected through the criterion of word "density" (Carli, Paniccia, Giovagnoli, Carbone & Bucci, 2016; Carli & Giovagnoli, 2011; Caputo, 2015). According to the language "double reference" (lexical and symbolic; Fornari, 1979), a dense word is capable to produce high levels of polysemy (infinite association of emotional meaning attributable to a word) and low levels of ambiguity (contradictory or indefinite emotional configuration). For instance, to measure

achievement, a dense adjective like “productive” triggers an immediate emotional association to achievement, with little space for ambiguity or semantic contradiction, while a non-dense adjective like “active” shows high ambiguity because it could also refer to a person who is particularly sociable (affiliation), self-determined (autonomy) or exerting influence (power).

### *1.3.2 Content Validity*

From a list of adjectives already used in previous studies and synonyms highlighting symbolic motives based on the here proposed model (Paniccia et al., 2009; Carli & Pagano, 2008; Carli & Esposito, 1971; Saraceni & Carli, 1970), we selected 40 adjectives - 10 per each symbolic motive – which were considered potentially adequate in describing a work context. All the chosen adjectives were stated in a positive form in order to avoid threats to internal consistency reliability (Schriesheim, Eisenbach & Hill, 1991) and in consideration of the very low risk of non-attending respondents (i.e. not meant to be used in evaluative settings) (Barnette, 2000). The adjectives were stated in Italian.

The first selection process was done via expert judges evaluation. These experts were a pool of three psychologists with a solid background in psychodynamic and psychosocial research and intervention. Each adjective was given three different ratings of relevance regarding: suitability for the work context, word density, dimension consistency. A 4-point scale was used (from 1= not relevant, to 4= completely relevant). Item Content Validity Index was calculated (Martuza, 1977). The researchers analyzed the results and kept only the items that scored over 0.75 for each criterion; the remaining ones were discarded. The selection process led to the identification of a list of 6 adjectives per dimension.

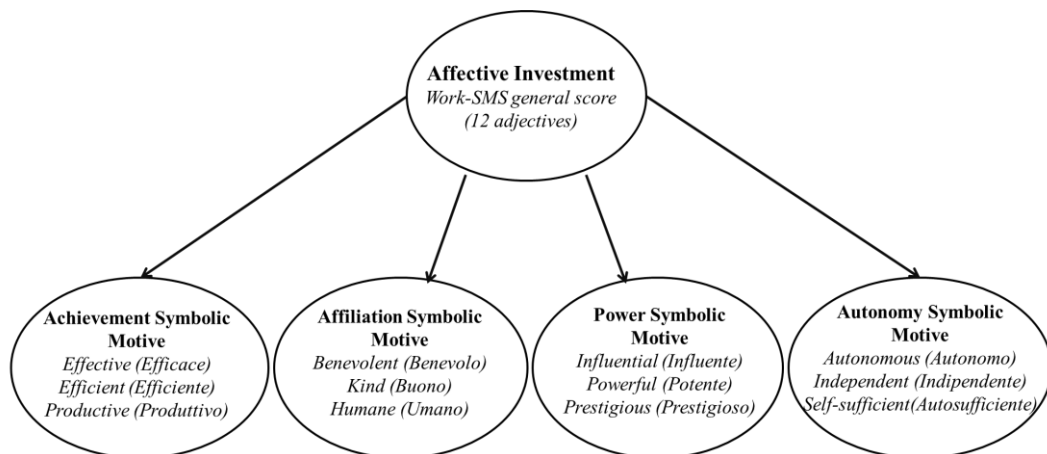
### *1.3.3 Face validity*

The 24-item scale was pre-tested through a group of 20 adult workers. For each adjectives, respondents were asked to indicate to what extent that adjective described their work context, on a 6-point scale (from 1= not at all to 6 = completely).

A qualitative interview was administered to respondents in order to examine the clarity of meaning of each adjective and its suitability in describing a potential work context. After collecting the respondents' evaluations and feedbacks, we kept the adjectives that were deemed clear and suitable to describe a potential work context.

After pre-testing, only 12 adjectives were retained (Figure 1.1). The overall score of the Work-SMS scale accounted for a general measure of affective investment, which was composed by the four dimensions of achievement, affiliation, power and autonomy, represented by 3 adjectives each.

Figure 1.1. *List of final adjectives for each sub-scale of the Work-SMS (translated in English from Italian)*



## 1.4 Study 1

A convenience sample of 372 participants was recruited (320 women and 52 men) among newly qualified Italian psychologists enrolled in a career research program. According to the common rule of thumb requiring a person-to-item ratio of 10:1, the sample size was considered acceptable. Mean age was 31.14 (SD = 5.45). The entire group of respondents fully completed the questionnaire after having obtained their written informed consent.

### 1.4.1 Measures

*Career Adapt-abilities Scale (CAAS)*: this scale is based on Savickas and Porfeli's construct of career adaptability (2012) and it is composed of 24 items able to identify the personal orientation to career development through four dimensions, all related to career adaptability and development: concern, control, curiosity and confidence. This dimension is a good indicator of the propensity of the individual to invest on her/his career and professional context (Çakmak-Otluoğlu, 2012). The overall score is summed up and indicates the career adaptability level of respondents. The higher the score, the higher the career adaptability. The response scale range from 1, Very little, to 5, Very much. We used the Italian version validated by Soresi, Nota and Ferrari (2012) in which reliability and validity of the total and sub-scale scores were confirmed. In our sample the scale showed good reliability properties for both the overall scale (Cronbach's  $\alpha = .94$ ) and for the four subscales of Concern (.86), Control (.85), Curiosity (.84) and Confidence (.88).

#### *1.4.2 Procedures*

Study 1 was used for distributional properties of the scale. Skewness and kurtosis values between -2 and +2 indicated an acceptable range of normal univariate distribution (George & Mallery, 2010).

An exploratory factor analysis (EFA) was performed using a principal axis (PA) method with a direct oblimin rotation which was preferred for the data psychometric properties, as we assumed the factors could be correlated. Items were considered related to a factor if their loadings reached a 0.4 threshold. Three main criteria guided the determination of factors number (Fabrigar, Wegener, MacCallum, & Strahan, 1999): the Kaiser criterion of eigenvalue  $>1$ , the screeplot analysis and the Parallel Analysis (based on the generation of random variables; for this study, 100 randomly generated data sets equal in size to the experimental data were constructed).

Sampling adequacy was measured by performing Kaiser-Meyer-Olkin measure (KMO) expecting good (0.7 - 0.8) or excellent outcomes (0.8 - 0.9, Hutcheson & Sofroniou, 1999). Anti-image correlations of  $> 0.5$  were considered acceptable (Field, 2013).

A second-order EFA was performed on the factorial scores of the previously detected factors in order to test a one-factor solution referring to affective investment as a second-order hierarchical construct.

A measure for convergent validity was identified with the Career Adapt-abilities scale. In line with previous literature about the factors that promote investment on one's professional context, it was expected that achievement and growth orientation (Pouyad, Vignoli, Dosnon & Lallemand, 2012; Kooij, De Lange, Jansen & Dikkers, 2011; Nauta, Vianen, Heijden & Willemssen, 2009) as well as autonomy (Ito & Brotheridge, 2005) or power (Hirschi, 2009) would positively correlate with career adaptability.

#### *1.4.3 Results*

Table 1.1 shows descriptive statistics including skewness and kurtosis indexes referring to each item of the scale. Results show that normality assumption was guaranteed because values as skewness and kurtosis between -2 and +2 are considered acceptable in proving normal univariate distribution (George & Mallery, 2010). No missing data were reported.

Table 1.1. *Descriptive Statistics*

Item	Mean	SD	SE	Skewness	Kurtosis
Efficient	4.43	1.24	.06	-.60	-.25
Effective	4.46	1.25	.06	-.66	-.13
Productive	4.25	1.30	.07	-.56	-.34
Powerful	3.36	1.36	.07	.04	-.65
Prestigious	3.45	1.38	.07	-.13	-.70
Influential	3.79	1.30	.07	-.30	-.48
Humane	5.14	1.26	.07	-1.58	1.77
Benevolent	4.18	1.26	.06	-.56	-.06
Kind	4.27	1.27	.07	-.55	-.32
Autonomous	4.23	1.21	.06	-.66	.09
Indipendent	4.08	1.32	.07	-.59	-.27

Self-sufficient	3.95	1.30	.07	-.46	-.36
-----------------	------	------	-----	------	------

*Note.* *SD* = standard deviation; *SE* = standard error.

An EFA was used to test the dimensionality of the scale. In the initial EFA, 1 factor with eigenvalue greater than 1.0 was extracted. However, both screeplot and parallel analysis (Table 2.2) confirmed that four factors should be retained because the eigenvalues from our actual data set exceeded the 95<sup>th</sup> percentile of eigenvalues derived from random data sets, as shown in Figure 2.2.

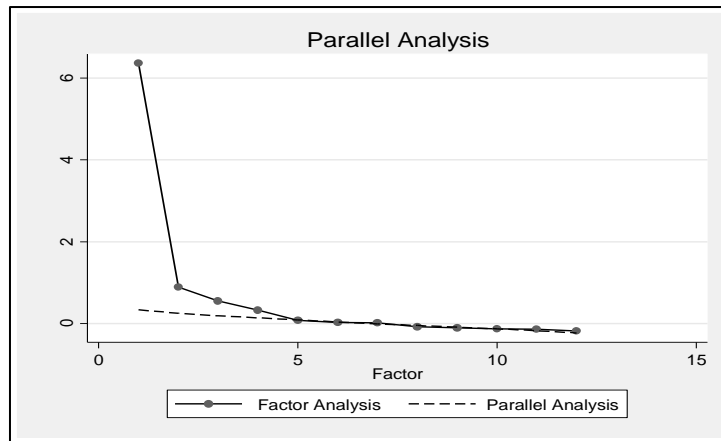
Table 2.2. *Parallel Analysis Results*

*Parallel Analysis for Factor Analysis (N = 372)*

*PA Eigenvalues Averaged Over 100 replications*

<i>Factor</i>	<i>FA</i>	<i>PA</i>	<i>Dif.</i>
<b>1</b>	<b>6.36</b>	<b>.33</b>	<b>6.03</b>
<b>2</b>	<b>.89</b>	<b>.25</b>	<b>.64</b>
<b>3</b>	<b>.55</b>	<b>.19</b>	<b>.36</b>
<b>4</b>	<b>.33</b>	<b>.14</b>	<b>.19</b>
5	.07	.09	-.01
6	.02	.04	-.01
7	.02	-.01	.02
8	-.08	-.05	-.03
9	-.10	-.09	-.01
10	-.13	-.13	-.00
11	.14	-.18	.032
12	.18	-.23	0.49

Figure 2.2. *Screeplot with Parallel Analysis Indicating Four Factors to be retained*



We initially decided to keep a 4-factor model, accounting for 79.91% of the variance, which was also strongly consistent with our theoretical model.

The results of this EFA were then rotated. The KMO of .90 verified the sampling adequacy for the EFA. Bartlett's test of sphericity confirmed the suitability of data for factor analysis,  $\chi^2(66)=3186.32$ ,  $p < .001$ . Anti-image correlation values for individual items were all  $>.86$  which is above the acceptable limit of .50. As shown in Table 1.3, overall factor loadings were satisfactory as well as communalities.

Table 1.3. *Loading for Exploratory Factor Analysis*

	Factor				
<i>Item</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>CM</i>
Efficient	<b>.83</b>	.00	.01	.08	.79
Effective	<b>.91</b>	.02	-.06	.11	.88
Productive	<b>.76</b>	-.16	.05	-.11	.70
Powerful	-.08	<b>-.94</b>	-.05	.07	.81
Prestigious	.10	<b>-.64</b>	.12	-.02	.59
Influential	.21	<b>-.60</b>	.05	.00	.62
Humane	.11	.05	.17	<b>.51</b>	.47
Benevolent	.00	.01	.04	<b>.90</b>	.84

Kind	.12	-.10	.02	<b>.74</b>	.82
Autonomous	-.00	-.07	<b>.87</b>	-.02	.69
Independent	.03	-.07	<b>.83</b>	-.00	.77
Self-sufficient	.00	-.10	<b>.57</b>	.15	.52
<i>Eigenvalue</i>	6.37	.89	.55	.33	
<i>Variance explained</i>	55.94	10.86	7.54	5.57	

---

**Inter-Factor Correlation**


---

<i>Factorial score</i>	1	2	3	4
1	-	-.66	.64	.69
2	-	-	-.41	-.44
3	-	-	-	.57
4	-	-	-	-

---

*Note.* Extraction Method: Principal Axis. Rotation Method: Oblimin with Kaiser Normalization. Factor Loadings  $\geq .40$  are in Bold.

We run a second EFA on factorial scores of the previously detected factors in order to test a one-factor solution referring to affective investment as a second-order hierarchical construct.

Sampling adequacy was verified by acceptable KMO (.76) while the suitability of data for factor analysis was confirmed by Bartlett's test of sphericity,  $\chi^2(6)=848.24$ ,  $p<.001$ . Anti-image correlation values for each factorial score were all  $>.69$ . Communalities and overall factor loadings were satisfactory as they loaded solely on one second-order factor, explaining the 72.64% of variance and verifying our hypothesis that all the four dimensions contributed to a general affective investment factor (Table 1.4).

Table 1.4. *Loading for Exploratory Factor Analysis on Factorial Scores*

<i>Factorial score</i>	Factor 1	CM
Achievement	.98	.96
Affiliation	.79	.62



Power	.68	.46
Autonomy	.74	.55
<i>Eigenvalue</i>	2.91	
<i>Variance explained</i>	72.64	

---

With reference to the scale reliability, Cronbach's alpha coefficient resulted in .93, showing excellent overall scale internal consistency for affective investment. Subscales reliability showed good levels as well, with test scores ranging from .83 for the affiliation sub-scale, .84 for autonomy sub-scale, .84 for the power sub-scale and .91 for the achievement sub-scale.

The use of career adaptability as a convergent measure showed consistent results with hypothesis 1, as career adaptability correlates with affective investment ( $r = .27$ ,  $p < .001$ ), and in particular with the achievement sub-scale ( $r = .29$ ,  $p < .001$ ), the autonomy sub-scale ( $r = .25$ ,  $p < .01$ ) and the also power sub-scale ( $r = .24$ ,  $p < .01$ ).

## 1.5 Study 2

Through a snowball sampling method, we promoted a web-based survey via social media (forums, blogs and social networks) to lead a Work-SMS validation in an adult working population. The guidelines for the online survey design, development and implementation were followed (Andrews, Nonnecke & Preece, 2003).

A convenience sample of 260 adult working participants was recruited (157 women and 103 men, mean age = 39.85; SD = 10.99; mean years of work experience = 14.6; SD = 11.2). The survey included socio-demographic, professional development and job satisfaction measures. With regard to job information, the sample was composed of employees (61.2%), free-lance professionals (27.7), and both (11.2%). About organizational position, 52.7% had a non-managerial role, 36.2 had a managerial role, while for the 11.2 % had multiple roles.

Participants were guaranteed anonymity and consented to be part of the study. Moreover, out of the total sample, 52 participants were randomly chosen and requested to fill out the survey again after one month.

### *1.5.1 Measures*

*Work self-efficacy scale.* The work self-efficacy scale (WSES) (Pepe, Farnese, Avallone, & Vecchione, 2010) is a 10-item scale assessing perceptions about specific work domains with a five-point Likert scale (from 1 – “not at all capable” to 5 – “completely capable”). It is composed of two subscales: *relational willingness* (attention to relationships with colleagues and superiors) and *commitment* (capability to achieve targets and being committed at work). Data on reliability and validity of both total and subscale scores are provided in the study by Pepe et al. (2010). In the present study Cronbach’s alpha for the two subscales was, respectively, .84 and .82 (.87 for the whole WSES).

*Career adaptability.* The same tool described in study 1 was used for study 2 (CAAS) (Savickas & Porfeli, 2012). In the present study Cronbach’s alpha for the total score of career adaptability was .94 and .89 (Concern), .79 (Control), .84 (Curiosity) and .85 (Confidence), for the four subscales.

*Professional development indicators:* professional development indicators consisting of three events to be happened in the previous 12 months: voluntary training, new job assignments and salary increase/increased revenue. The presence of one or more of these events yielded a sum score ranging from 0 to 3. This indicators was used to demonstrate behavioral focus and effort expenditure on professional effectiveness and career development (Ng & Feldman, 2014) through objective external indicators.

*Work satisfaction scale:* this scale was created ad hoc for the purpose of this study, and aimed at collecting different aspects of work satisfaction through a short tool, currently not available of such length in the Italian context. A 6-item scale was created asking participants their satisfaction levels about their relationship with: work context, colleagues, direct manager or work supervisor, clients/recipients, business market of the organization. The response scale ranged from 1 (Not at all) to

6 (Completely). The scale showed acceptable reliability with a .73 Cronbach's alpha. A principal component analysis showed that the first component extracted explained for 49.10% of the overall variance.

### *1.5.2 Procedures*

In Study 2 we performed a CFA in order to test the scale latent construct.

We analyzed different components of fit (Hu & Bentler, 1995): the  $\chi^2$  ratio ( $\chi^2/\text{degrees of freedom [df]}$ ), the root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), Confirmatory Fit Index (CFI; Bentler, 1990), Tucker–Lewis Index (TLI), Akaike Information Criterion (AIC; Akaike, 1987), and Bayesian Information Criterion (BIC; Schwarz, 1978). CFA was performed both on the first-order and the second-order hierarchical solution.

The  $\chi^2$  ratio values less than 3 (or in some instances 5) indicate acceptable models (Kline, 2015). Smaller  $\chi^2$ , AIC, and BIC values correspond to better fitting models (Schumacker & Lomax, 2010). We followed Hu and Bentler (1999) proposal considering RMSEA values up to .05 to indicate good fit, between .06 and .08 an adequate fit, and  $>.10$  a poor fit; SRMR values below .08 were considered indicative of a good fit, and CFI and TLI values greater than .90 were considered indicative of acceptable model fit.

The final version of the Work-SMS was examined to evaluate reliability of the general and sub-scale scores in terms of internal consistency by using Cronbach's alpha.

We evaluated test-retest reliability by submitting the Work-SMS to a sample to 52 respondents out of 260 after 1 months from the first questionnaire completion.

We examined whether affective investment had incremental predictive validity regarding professional development outcomes, beyond work self-efficacy and career adaptability, considered as well-established predictors of focus and investment on professional development or career. Besides, we evaluated if affective investment still remained a predictor of professional development, even after work self-efficacy and career adaptability were taken into account. This is to increase our knowledge

of whether and how affective investment, as a result of a more complex interaction between individuals and their actual work contexts, can keep a significant role regardless of further effects derived from more individual-related dimensions.

An independent sample t-test was used in order to compare the means of respondents belonging to different groups according to two different criteria: employment type (free-lance professionals vs. employees) and organizational position (managerial vs. non-managerial roles). Respondents with multiple types of employment and organizational roles (N= 29) were excluded. As stated in hypothesis 4, with reference to employment status and managerial position, we expected self-employed professionals and managerial roles to show higher scores in affective investment.

### 1.5.3 Results

The results of CFA indicated an adequate fit of the four-factor model of Work-SMS ( $\chi^2 = 106.14$ ;  $df = 50$ ;  $\chi^2/df = 2.12$ ; CFI = .96; TLI = .95; RMSEA = .06 [90% CI: .048, .08]; SRMR = .050). As reported in Table 1.5, all the factor loading estimates were statistically significant at  $p < .001$ , ranging from .60 to .88.

Table 1.5. *Factor Loading Estimates for Confirmatory Factor Analysis (Standardized Coefficients)*

<b>Factor loadings estimates for second-order factor</b>			
<i>Factor</i>	<i>Item</i>	<i>Coeff.</i>	<i>p.</i>
Affective Investment	Achievement	.90	<.001
	Power	.68	<.001
	Affiliation	.69	<.001
	Autonomy	.77	<.001
Achievement	Efficient	.82	<.001
	Effective	.87	<.001
	Productive	.60	<.001
Affiliation	Humane	.76	<.001
	Benevolent	.75	<.001

	Kind	.88	<.001
Power	Powerful	.76	<.001
	Prestigious	.71	<.001
	Influential	.77	<.001
Autonomy	Autonomous	.73	<.001
	Independent	.61	<.001
	Self-sufficient	.80	<.001

---

*Note:* Extraction Method: Maximum Likelihood.

We also performed a comparison of the goodness-of-fit indexes between the second-order factor model (including the four first-order factors of achievement, affiliation, power, autonomy) and a unidimensional model, as a first EFA had highlighted only one factor with eigenvalue higher than one.

However, according to what suggested by Schumacker and Lomax (2010), the results did not show a better fit of the one-factor solution because it was characterized by higher values of  $\chi^2$  (458.94 vs. 106.14) and Akaike Information Criterion (AIC) (11034.3 vs. 10689.5), lower CFI (.71 vs. .96) and TLI (.63 vs. .95), and worse values of SRMR (.10 vs. .050) and RMSEA (.17 vs. .06). Therefore, the second-order factor model was considered as more apt to fit the data well, coherently with our theoretical framework.

Work-SMS reliability was evaluated in study 2 as well, with Cronbach's alpha coefficient resulting in .874, showing good general scale internal consistency. Sub-scales' reliability showed acceptable levels as well, with test scores ranging from .75 for autonomy sub-scale, .84 for the affiliation sub-scale, .79 for the power sub-scale and .81 for the achievement sub-scale.

Test-retest reliability showed fair levels after one month from first completion, for affective investment ( $r=.70$ ,  $p<.001$ ), achievement ( $r=.61$ ,  $p<.001$ ), affiliation ( $r=.58$ ,  $p<.001$ ), power ( $r=.49$ ,  $p<.001$ ), and autonomy ( $r=.73$ ,  $p<.001$ ).

With regard to incremental validity of affective investment on professional development outcomes, some statistically significant results emerged. After considering other more individual-

related variables deemed relevant for professional development, such as work self-efficacy and career adaptability, affective investment succeeded in explaining about 3.0% more of the professional development score ( $p < .01$ ), conceived as an indicator of the effort expenditure towards the work context (Table 1.6) (Hypothesis 2a).

Table 1.6. *Summary of Multiple Regression Analyses for Predicting Professional Development by Work-SMS General Score Beyond Work Self-Efficacy and Career Adapt-Abilities Scores (Method: Enter)*

	<i>Scale</i>	$\beta$	SE	p.
Model 1	Career Adaptability	.17	.00	.04
	Work Self Efficacy	.07	.01	.42
	<i>Constant</i>	.05	.37	.88
R	.22			
R <sup>2</sup> (adjusted)	.05**			
Model 2	Career Adaptability	.14	.00	.08
	Work Self Efficacy	.02	.01	.81
	Affective Investment	.19	.00	<b>&lt;.01</b>
	<i>Constant</i>	-.07	.37	.84
R	.28			
R <sup>2</sup> (adjusted)	.08***			

Note: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Affective investment still remains a good predictor of professional development outcomes even when adding further variables, such as work self-efficacy and career adaptability, which do not show significant contribution anymore (Table 1.7) (Hypothesis 2b).

Table 1.7. *Summary of Multiple Regression Analyses for Predicting Professional Development by Work Self-Efficacy and Career Adapt-Abilities Scores Beyond Affective Investment (Method: Enter)*

	<i>Scale</i>	$\beta$	SE	p.
Model 1	Affective Investment	.239	.004	<.01

	<i>Constant</i>		<i>.181</i>	<i>&lt;.01</i>
R	<i>.239</i>			
R <sup>2</sup> (adjusted)	<i>.054***</i>			
Model 2	Affective Investment	<i>.186</i>	<i>.004</i>	<i>.004</i>
	Work Self Efficacy	<i>.020</i>	<i>.012</i>	<i>.808</i>
	Career Adaptability	<i>.144</i>	<i>.005</i>	<i>.081</i>
	<i>Constant</i>		<i>.367</i>	<i>.845</i>
R	<i>.282</i>			
R <sup>2</sup> (adjusted)	<i>.069*</i>			

Note: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Hypothesis 3 was verified by collecting evidence of predictive validity by measuring job satisfaction, at the time and after one month from the scale first administration. Results confirmed that affective investment positively correlates with job satisfaction ( $r=.69$ ,  $p<.001$ ) as well as the related sub-scales. Even after one month from the first scale administration, Work-SMS general score positively correlates with job satisfaction ( $r= .42$ ,  $p<.01$ ) and with the affiliation ( $r= .41$ ,  $p<.01$ ) and achievement subscales ( $r= .38$ ,  $p<.01$ ) (Table 1.8).

Table 1.8. *Correlations Between Affective Investment scale and Affiliation, Achievement, Power, Autonomy subscales and Career development and Job satisfaction, currently and after one month (Pearson's R)*

	Affective investment	Affiliation	Achievement	Power	Autonomy
Job satisfaction	<i>.69**</i>	<i>.64**</i>	<i>.56**</i>	<i>.40**</i>	<i>.52**</i>
Job satisfaction (after one month)	<i>.42*</i>	<i>.41*</i>	<i>.38*</i>	<i>.23</i>	<i>.26</i>

Note: \*  $p < .05$ ; \*\*  $p < .01$  (two-tailed)

Moreover, we investigated whether some environment-related variables, such as having different types of employment (employee vs. free-lance professionals) and organizational role (managerial position vs. non managerial positions) could lead to significant differences in affective investment scores (Hypothesis 4).

After excluding from the analysis the 29 respondents having multiples roles and jobs and to whom these two categories were not applicable (11.2%), an independent-samples t-test was conducted to compare free-lance professionals and employee population, based on the affective investment scale. Indeed, respondents' scores differed significantly, with higher scores for free-lance professionals ( $M = 51.26$ ,  $SD = 11.11$ ) compared to employees ( $M = 42.88$ ,  $SD = 12.68$ ,  $t(229) = -4.83$ ,  $p = .001$ ). Whereas, respondents in managerial roles showed significantly higher scores ( $M = 50.32$ ,  $SD = 11.62$ ) than respondents in non-managerial roles ( $M = 42.18$ ,  $SD = 12.54$ ,  $t(229) = -4.99$ ,  $p = .001$ ).

## 1.6 General Discussion

The study here presented proposes an integrative interpretation of affects and symbolic dimensions at work. The construct of affective investment and affective motives, already well-studied in previous pieces of research (Carli & Giovagnoli, 2011; Salvatore & Freda 2011; Langher et al., 2014), were here conceived through a four-dimensional model (made of achievement, affiliation, power and autonomy), in order to provide further understanding of emotional, representational, symbolic, and motivational dynamics that link individuals to their work contexts. Within this framework, the goal of this piece of research was to propose a conceptualization and an operational measure for affective investment based on symbolic motives at work. With this aim, the Work-SMS was developed and evidence for its validity was collected, relying on previous research done in the psychodynamic and psychosocial field.

In particular, affective investment was conceived as the endowing process of positive qualities ascribed to the work context which make it satisfactory and preservation worthy (Salvatore & Zuitton,



2011; Western, 1991; Frijda, 1988; Voronov & Vince, 2012), indicating the intensity of affect towards the work context. The four symbolic motives referring to achievement, affiliation, power and autonomy were used as fundamental components of affective investment, considering the role they play as psychosocial dimensions embedded within the organizational functioning (i.e. goal attainment, relational bonding, exercise of power, and independence). In this perspective, symbolic motives are considered not as individual features or drives, but as unconscious and shared symbolic dimensions elicited by interacting and co-constructing the same work context. Adjectives, considered as powerful lexical tools to describe affective, cultural, and representational aspects of a work context, were chosen as the verbal means of these shared symbolic dimensions.

The Work-SMS was initially developed from a set of 40 (10 per dimension) adjectives, already used in previous studies and underpinning the four types of here-proposed symbolic motives (Paniccia et al., 2009; Carli & Pagano, 2009; Carli & Esposito, 1971; Saraceni & Carli, 1970). The final version of the Work-SMS is composed by a set of 12 adjectives (3 per dimension) and requires to describe one's own work context through a Likert scale ranging from 1 (not at all) to 6 (completely). In detail, the four set of adjectives arouse emotions related to the dimensions of: achievement (goal attainment, success, productivity); affiliation (acceptance, reassurance, relationship orientation); power (status, prestige, influence); autonomy (independency, freedom from others, and self-sufficiency).

Two studies were conducted contributing to test the construct validity by both exploratory (study 1) and confirmatory factor analysis (study 2) and to examine the reliability of the Work-SMS general score, in terms of both internal consistency (study 1 and study 2) and test-retest reliability (study 2).

Results confirmed a second-order factor model, accounting for a general measure of affective investment, including the four dimensions of achievement, affiliation, power and autonomy. This model explained 79.91% of the variance showing good psychometric properties, acceptable internal

consistency (Cronbach's  $\alpha \geq 0.80$ ), and overall sufficient test-retest reliability estimates, after one month for the Work-SMS general score ( $r=.70$ ).

The Work-SMS subscales correlated with each other, highlighting how its four dimensions should not be considered as independent but rather inter-related and coexisting within a general measure of affective investment (Hartnell et al., 2011; Voronov & Vince, 2012). In order to better understand the constructs at hand, study 1 collected evidence of convergent validity on a sample of newly-qualified psychologists enrolled in a career research program ( $N=372$ ). The Work-SMS overall score (affective investment) correlated with career adaptability as a convergent measure, which, for a population of newly qualified Italian psychologists enrolled in a career research program, seemed a consistent measure of focus and effort expenditure towards the professional context and career. The results have shown that achievement, autonomy and power symbolic motives correlated with career adaptability, in line with previous literature (Çakmak-Otluoğlu, 2012; Hirschi, 2009; Rudolph, Lavigne & Zacher, 2017; Su & Dong, 2015; Tolentino et al., 2013). However, affiliation did not show any association to career adaptability, probably because the Career Adapt-Abilities scale (Savickas & Porfeli, 2012) mostly focuses on professional attainment rather than on relational component at work.

Study 2, conducted on an adult working population ( $N=260$ ), also contributed to understand the Work-SMS overall and sub-scale dimensions. In this case, we chose to move our focus to a more adult population, whose affective investment may have been visible through more direct and objective indicators of investment on the work context (i.e. obtainment of new assignments, attendance to voluntary professional training, increase in one's salary/revenue). To better understand the contribution of affective investment on these objective indicators, we chose to use the career adaptability and the work self-efficacy constructs, as widely acknowledged dimensions supporting the perception and the intention of the individuals to invest on their professional contexts. In this case, affective investment seems to be a promising measure to detect the perception of effort worthiness,

because it has incremental predictive validity on objective career development indicators, beyond other more individual dimensions related to professional development, such as work self-efficacy and career adaptability. Furthermore, affective investment remains significant even when adding the above mentioned constructs as covariates. In a way, these results tell us that a positive work context symbolization can significantly determine if a person is investing effort, time and energy in it. Besides, such dimension can potentially provide a more complex perspective about personal and professional adjustment at work, which interact not just with individual and subjective perceptions but also with environmental, symbolic and representational factors.

Job satisfaction was chosen as a stable and coherent context-related measure to observe the predictive capability of affective investment over time. Results confirmed the Work-SMS predictive validity, after one-month time, with a positive association between job satisfaction and affective investment, and in particular with regard to the affiliation and achievement dimensions. A possible explanation of this result may be linked to the fact that affiliation and achievement may be considered as the most reliable and consistent dimensions in professional contexts and in performance attainment (Forsyth, 2010).

Eventually, further validity through external indicators was collected by investigating the association between different types of employment and organizational positions as potential triggers of different work-related experiences and thus of different levels of affective investment. Indeed, respondents with a self-employment status (free-lance professionals) showed higher affective investment compared to respondents who were employees. Similarly, respondents with managerial positions showed higher affective investment compared to respondents with non-managerial positions. In line with previous literature (Thompson et al., 2012; Kónya et al., 2016) these results emphasize how a condition of stronger responsibility (towards self or others) at work can be associated to a stronger feeling of the context's worth and value.

### **1.7 Limitations of the study**

Some limitations should be acknowledged in order to put the results into perspective. Firstly, the generalizability of our findings can be called into question due to the convenience nature of the samples used in the two studies and to the online administration which could have generated a self-selection bias. Besides, trans-cultural validity is limited because our samples were entirely composed by Italian respondents; therefore, cross-cultural validation studies should be conducted in the future. Another limitation refers to the potential role of further unobserved variables, which may interfere with the relationship among the examined constructs, such as individual-related dimensions or specific cultural or climate configurations of the respondents' respective organizations. Actually, the use of other organizational culture measurement tools may enhance the collection of convergent evidence of validity. The correlational nature of the present studies does not allow the disentanglement of the complex patterns among the examined variables; in this regard, longitudinal research should be further developed to causally infer the impact of the Work-SMS dimensions. Moreover, the measures used to test evidence of validity were self-reported (although in some instances related to objective indicators). Further other-reported, behavioral or relational measures could better deepen the practical relevance of this piece of research in terms of actual career outcomes in the workplace on the individual, relational and organizational level.

### **1.8 Implications for practice**

Aware that measuring these affective dimensions keeps being a research challenge in constant development (see the Organizational Development Indicators tool, Carli & Giovagnoli, 2011; Battisti, Dolcetti, Nutricato, Betti & Propersi, 2016), we chose to create the Work-SMS as a short scale that can be used also in integration with other tools, in order to grasp wider representational aspects of the work context. Work-related psychosocial interventions and training could benefit from using the Work-SMS prior, during and after the implementation phase, in order to identify the affective dimension

underpinning the cognitive representations of a work context (Voronov & Vince, 2012) and monitor it over time. Considering affective investment and the symbolic motives that most contribute to it as the product of a mainly unconscious and shared process, its unveiling could allow an elaboration of unaware assumptions that make coexistence within a same work context more successful. This could also lead to the understanding of attitudes and practices which may not be immediately comprehensible from a rational point of view (i.e. resistances to innovation or change, ineffective behavior reiteration, conflict among diverging affective investment levels or symbolic motives within the same organization).

Corporate climate and engagement surveys could include the Work-SMS in order to have access to a deeper affective representations of the organization, besides more explicit indicators such as job satisfaction and commitment, also thanks to the shortness of the tool.

Organizational change management programs may thus benefit from an organizational analysis which focuses also on the affective investment dimensions as to identify which affective forces or symbolic motives are hindering or strengthening the transformational processes.

Eventually, from a research point of view, this study can offer additional explanatory information about the factors that enable fundamental work-related dimensions, such as job satisfaction (Broeck, Vansteenkiste, Witte, Soenens & Lens, 2010), professional development or career adaptability (Bocciardi, Caputo, Fregonese, Langher & Sartori, 2017). However, more research is needed in order to explore the dynamics that make affective investment and symbolization a shared unconscious process and the relationship of the affective investment and symbolic motives with other cultural and affective dimensions at work.

## Chapter 2

### **Italian Translation of the Questionnaire for professional Training Evaluation (Q4TE)**

#### **2.1 Introduction**

Professional training is one of the most widely used organizational tools for improving the employees' capabilities to cope with existing or new challenges, develop resilience and reduce organizational and emotional difficulties (Langher, Caputo & Ricci, 2017). In the last decades, several frameworks to evaluate its impacts have been created, constantly expanding the levels and the depths at which training evaluation can take place (Aguinis & Kraiger, 2009; Wang & Spitzer, 2005; Wang & Wilcox, 2006). The Kirkpatrick's four level model (Kirkpatrick, 1967; Kirkpatrick & Kirkpatrick, 2016) is one of the most used frameworks to measure at which level evaluation can be led (reaction, learning, behavior, results). From the first appearance of this model, several other research works have been offering additional conceptual frameworks and tools aimed at taking into account multiple training and organizational levels of evaluation (Alvarez, Salas & Garofano, 2004; Holton, 2005; Kraiger, 2002; Phillips, 2012; Sitzmann & Weinhardt, 2017). However, at the moment, assessing the impacts of training keeps being a challenge for many L&D practitioners, who often find it hard to go beyond the simple participants' immediate reactions at the end of a training program (Nickols, 2005; Pineda, 2010) because of costs, professional approach and even mindset reasons (Lewis, 1997; Phillips, Ray & Phillips, 2015; Swanson, 2007; Wang & Wilcox, 2006).

A general call for valid and usable training evaluation tools has been raised by many authors and institutions (Aguinis & Kraiger, 2009; ASTD, 2009; Guerri & Vinante, 2010; Phillips & Phillips, 2016). In front of this call, numerous models and instruments have been created with the purpose to evaluate the impact of professional training.

Ambitious and comprehensive evaluation approaches and methods have been designed to evaluate training impacts through financial quantification and ROI estimation (Phillips, 2007; Phillips & Phillips, 2016), storytelling and qualitative inquiry (Brinkerhoff, 2006), involved stakeholders' satisfaction (Guerci & Vinante, 2011). Although such methods represent fundamental attempts to quantification and creation of conceptual and practical guidelines for L&D practitioners, still the use of inventories and scales can be very useful when it comes to guaranteeing efficiency and comparison among different training interventions and environments.

Among the available quantitative tools, Holton and colleagues (Bates, Holton & Hatala, 2012; Holton, Bates, Seyler & Cavalho, 1997; Holton, 2005) pioneered the research around a scale that could identify barriers and enablers of learning transfer, from a motivational, environment, training and ability point of view. Their research work produced a generalized learning transfer system inventory (LTSI), made of a set of 112 items, which encompasses several organizational, individual, and managerial dimensions. This scale focuses on the perceived transfer climate before and after the training more than on the training intervention outcome itself, and thus serves the purpose of wider organizational intervention and transformation analyses.

Focusing more on the evaluation of training impacts, Ritzmann, Hagemann & Kluge (2013) built the TEI (Training Evaluation Inventory), which is a 45-item scale measuring subjective enjoyment, usefulness, difficulty, knowledge gain, and attitude towards training, as well other training design dimensions. This scale, albeit very complete and capable to compare different training interventions, has a length which makes it time-consuming and hardly embeddable in other more context-specific evaluation measures.

Whereas Grohmann and Kauffield (2013) ideated and validated a concise Questionnaire for professional Training Evaluation (Q4TE). The scale measured short and long-term training outcomes (Kirkpatrick & Kirkpatrick, 2007; Wang & Wilcox 2006), with a 6 inter-correlated factor model, including satisfaction, perceived utility and knowledge as short term outcomes, and application to

practice, organizational individual results and global results as long term outcomes. The Q4TE has sound psychometric properties and combines shortness (12-item) and measurement of training impacts at different levels and terms: from reaction (global satisfaction and perceived utility) to knowledge, application to practice and organizational results (individual and global).

One the main advantages of this scale is to be extremely time and cost efficient, which makes it eligible to be used in combination with other quantitative or qualitative measurement tools and within wider organizational evaluation initiatives. Indeed, it shows good applicability to different training contexts, regardless of the specific training contents. Moreover, its psychometric stability and reliability make it a useful tool for research purposes as well.

Even though the scale has been widely used in German, English and other languages (Grohmann, Beller & Kauffeld, 2014; Massenberg, Schulte & Kauffeld, 2015; Lourenço, 2017; Rekik & Bali, 2017), no similar scale has been validated in the Italian literature to date. This is why, based on the previously discussed advantages, we chose to focus on the Q4TE.

This paper aims at translating the Q4TE into Italian and at investigating its validity and reliability in this context for use in both organizational research and practice.

## **2.2 Aim of the study**

Through this study we aimed at validating the Q4TE scores within the Italian context, by exploring the current underlying factor structure, and by examining the differential and the discriminant validity of the scale, as well as the role of individual and training-related factors as possible covariates.

### *2.2.1 Underlying factor structure*

In the exploratory phase of the original scale validation (2013), Grohmann and Kauffeld identified two factors underlying the Q4TE, which were respectively referring to short-term (satisfaction, perceived utility, knowledge) and long-term evaluation (application, individual



organizational results and global organizational results). In their confirmatory factor analyses, though, based on modification indices, residual variances and item wording inspection, the authors developed the final version of the Q4TE, which resulted in 6 subscales made of 2 items each. The authors also investigated other factor structures: a 2 second-order latent factor model (Short and Long term results), a 4-factor model (based on Kirkpatrick's model of Reaction, Learning, Behavior, Results) and a 6 inter-correlated factor model (Satisfaction, Utility, Knowledge, Application, Individual Organizational results and Global Organizational Results). However, only the 6 inter-correlated factor model led to better goodness-of-fit indexes.

Thus, our first research question aims at discovering whether these results apply also to the Italian validation of the Q4TE scores and, if not, which model best represents the factor structure of the scale.

### *2.2.2 Differential and discriminant validity*

In line with the tools chosen by the authors of the scale, to gain evidence for the capability of the questionnaire to detect actual training impacts and learning transfer, we aimed at identifying whether the Q4TE scores were associated with concrete learning transfer and, also, with learning transfer quantity.

For this reason, our second research question concerns the differences between respondents who report to be successful in transferring the learning into practice and respondents who do not. We expect the former to show higher Q4TE scores than the latter.

Our third research question aims at exploring the relationship between the Q4TE scores and transfer quantity, i.e. number of training content applied at work (Kauffeld, Bates, Holton & Müller, 2008; Kauffeld & Lehmann-Willenbrock, 2010; Grohmann & Kauffeld, 2013). Consistently with the original validation study, we expected the questionnaire to be associated with a higher number of training contents applied at work.

Moreover, our fourth research question aims at identifying the influence of other possible variables such as gender, age, organizational tenure, type of training (i.e. open skills, closed skills or both; Yelon & Ford, 1999; Blume, Ford, Baldwin & Huang, 2010), training course duration, and also the variety of training methodologies used during the training (i.e. frontal lectures, experiential exercises, group and peer discussion, simulations, virtual learning sessions).

## **2.3 Methodology**

In order to answer these questions we carried out two studies, both with adult working populations. Study 1 (N=125) aimed at answering to our first research question, while study 2 (N=122) answered to our second, third and fourth research questions. To test construct validity, we used study 1 for exploratory factor analysis (EFA) in order to examine the factor structure of the scale; study 2 was then used for confirmatory factor analysis (CFA) to verify the factor structures found in study 1.

## **2.4 Study 1**

### *2.4.1 Translation of Q4TE into Italian*

For the translation of the Q4TE into Italian we used a four-step methodology (Sousa & Rojjanasrirat, 2011) starting from the English translation provided the authors (Grohmann & Kauffeld, 2013):

- Forward translation: Three linguistics experts independently translated the original scale from English to Italian.
- Reconciliation: The three experts and researchers compared the forward versions with the original scale and reconciled their differences.
- Back translation: A linguistics expert with a good proficiency in both Italian and English translated the reconciled version from Italian back to English.

- Comparison: Finally, the original and back-translated versions were newly examined. The back-translation was compared with the original scale to determine whether any difference between the English and Italian versions existed in meaning and concept coherence. After the necessary corrections, the tool reached its final Italian language version. Through this approach, concept and language equivalence were guaranteed.

#### 2.4.2 Content validity

After the translation process was completed, some experts assessed the content validity of the Italian version. Three psychologists, experts in organizational training, were asked to evaluate the item content, meaning, and clarity by assessing the proposed items as *inappropriate*; *appropriate to some extent-item should be revised*; *appropriate-minor changes required*; and *quite appropriate* (McKenzie, Wood, Kotecki, Clark, and Brey, 1999). We considered the assessments *appropriate-minor changes required* and *quite appropriate* as acceptable, and content validity ratio (CVR) was calculated accordingly (Lawshe, 1975).

#### 2.4.3 Face validity

To test the face validity and comprehensibility of the tool, Q4TE was pre-tested with 10 volunteer participants who had attended a professional training in the last 2 years. These volunteers assessed Q4TE items for readability, comprehensibility, sentence length, clearness and clarity of meaning. After pre-testing, no change to the content of the Italian version was required. The final version is shown in Table 2.1.

Table 2.1. *Q4TE Items and Italian Translation*

Short or long-term evaluation (Wang and Wilcox, 2006)	Four-level evaluation (Kirkpatrick, 1967)	Original Q4TE scale (Grohmann and Kauffeld, 2013)	Item wording (Italian and English version)
<i>Short-term evaluation</i>		<i>Satisfaction</i>	<i>Ho apprezzato molto il corso di formazione</i> I enjoyed the training very much

Long-term evaluation	<i>Reaction</i>		<i>Conserverò un buon ricordo del corso di formazione</i> I will keep the training in good memory
	<i>Utility</i>		<i>Il corso di formazione ha apportato un grande beneficio al mio lavoro</i> The training is very beneficial to my work <i>La partecipazione a questo tipo di formazione è molto utile per il mio lavoro</i> Participation in this kind of training is very useful for my job
	<i>Learning</i>	<i>Knowledge</i>	<i>Dopo la formazione, ho più molte conoscenze di prima rispetto ai contenuti del corso</i> After the training, I know substantially more about the training contents than before <i>Ho appreso molte cose nuove durante il corso di formazione</i> I learned a lot of new things in the training
	<i>Application</i>	<i>Application to practice</i>	<i>Nel mio lavoro quotidiano, utilizzo spesso la conoscenza che ho acquisito durante il corso di formazione</i> In my everyday work, I often use the knowledge I gained in the training <i>Riesco bene ad applicare i contenuti del corso nel mio contesto lavorativo quotidiano</i> I successfully manage to apply the training contents in my everyday work.
	<i>Results</i>	<i>Individual organization al results</i>	<i>Dopo il corso di formazione, sono più soddisfatto del mio lavoro</i> Since the training, I have been more content with my work <i>La mia performance lavorativa è migliorata grazie all'applicazione dei contenuti del corso</i> My job performance has improved through the application of the training contents
		<i>Global organization al results</i>	<i>In generale, mi sembra che l'applicazione dei contenuti del corso abbia facilitato il lavoro nella mia organizzazione</i> Overall, it seems to me that the application of the training contents has facilitated the work flow in my company <i>In generale, mi sembra che il clima organizzativo sia migliorato grazie al corso di formazione</i> Overall, it seems to me that the organizational climate has improved due to the training

#### 2.4.4 Participants

A convenience sample of 125 participants was recruited (75 women and 50 men) whose mean age was 38.03 ( $SD = 9.01$ ). We considered only participants who had attended a professional training course that dated back between 4 weeks and 2 years, in order to allow knowledge to be turned into practice and still keep good learning content retention (Grohmann & Kauffeld, 2013; Linton, 1982).

We partnered with an Italian training provider in order to collect a wide sample in a short time. A web-based survey was promoted at least 4 weeks after each training course had finished. The survey was conducted according to the online survey design, development and implementation guidelines suggested by Andrews, Nonnecke, & Preece (2003) and was chosen because of its easiness of administration to geographically disperse respondents across the national territory (Evans & Mathur, 2005). The sample included employees from several industries (i.e. energy, pharmaceutical, telecommunication, transports, finance) mainly referring to private sector. For the present study 100% of the respondents filled in the complete questionnaire without missing data and after giving their informed consent. The sample size was considered as acceptable based on the common rule of thumb of 10:1 person-to-item ratio.

#### *2.4.5 Measures*

Questionnaire for Professional Training Evaluation (Q4TE; Grohmann & Kauffeld, 2013) is 12-item questionnaire, measured on a 11-point Likert-type scale, with alternatives ranging from 0 (“completely disagree”) to 10 (“completely agree”). The questionnaire consists of 12 items referring to the six sub-scales of satisfaction, utility, knowledge, application to practice, individual organizational results and global organizational results. Each sub-scale is composed of 2 items, which keeps the measure time-efficient and psychometrically valid (i.e. Rammstedt, 2007; Rammstedt & John, 2007).

#### *2.4.6 Data Analyses*

We inspected the distributional properties of the scale to check the normality of the total scores. Skewness and kurtosis values between  $-2$  and  $+2$  were assumed to indicate an acceptable range to prove normal univariate distribution (George & Mallery, 2010).

EFA with maximum likelihood (ML) was performed to extract underlying common variance among items. Each item was included in a specific factor if there was a minimal factor loading of 0.4; while, to determine how many factors should be retained, we used the Kaiser criterion including factors with an eigenvalue  $>1$ , screeplot analysis, and Horn’s parallel analysis.

To assess the sampling adequacy, Kaiser-Meyer-Olkin (KMO) was calculated with values ranging from 0.7 – 0.8 (Hutcheson & Sofroniou, 1999) indicating that the sampling is adequate. Anti-image correlations of  $> 0.5$  were deemed as acceptable (Field, 2013).

#### 2.4.7 Results

The KMO of 0.93 verified the sampling adequacy for the EFA.

Anti-image correlation values for individual items were all  $> 0.80$ , which is well above the acceptable limit of 0.50.

As shown in Table 2, overall factor loadings were satisfactory (from  $-.56$  to  $.97$ ) while communalities ranged from  $.69$  to  $.83$ .

An EFA was used to test the dimensionality of the Q4TE. In the initial EFA (ML), two factors with eigenvalue greater than 1.0 were extracted which accounted for 79.42% of the variance of the original items (Table 2.2).

*Table 2.2. Item Factor Loading After EFA (Factor Loadings Refer to the Italian Version)*

<i>Item</i>	<i>Factor</i>	
	<i>1</i>	<i>2</i>
I enjoyed the training very much	-.115	<b>-.965</b>
I will keep the training in good memory	-.079	<b>-.964</b>
The training is very beneficial to my work	.182	<b>-.771</b>
Participation in this kind of training is very useful for my job	.272	<b>-.660</b>
After the training, I know substantially more about the training contents than before	.328	<b>-.571</b>
I learned a lot of new things in the training	.338	<b>-.564</b>
In my everyday work, I often use the knowledge I gained in the training	<b>.665</b>	-.278
I successfully manage to apply the training contents in my everyday work	<b>.597</b>	-.296
Since the training, I have been more content with my work	<b>.656</b>	-.253
My job performance has improved through the application of the training contents	<b>.836</b>	-.075
Overall, it seems to me that the application of the training contents has facilitated the work flow in my company	<b>.971</b>	.097

Overall, it seems to me that the organizational climate has improved due to the training .896 .095

---

*Note:* Extraction Method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization.

Horn's parallel analysis suggested that *only* one factor should be retained (adjusted eigenvalue = 7.88), while screeplot analysis indicated three underlying factors. This contradictory results led us to test different competing models through confirmatory factor analysis in Study 2.

## 2.5 Study 2

### 2.5.1 Participants

A convenience sample of 122 participants was collected through an online survey respecting the same criteria used in Study 1. The 63.9% of the sample was composed by women while 36.1% by men, mean age of 37.7 years old (SD=11.25) and average tenure of 6.7 years (SD=8.00).

The 100% of the respondents completed questionnaire and gave their informed consent. The sample size was considered acceptable as ensuring the person-to-item ratio of 10:1.

### 2.5.2 Measures

Consistently with the original validation study (Grohmann & Kauffeld, 2013), transfer to practice was measured with the item 'Have you been able to transfer training contents to practice?', which had to be rated with a positive (yes) or negative (no) answer (adapted from Kauffeld et al., 2008; Kauffeld, Brennecke & Strack, 2009).

Similarly, we measured transfer quantity through an item concerning the number of training contents/skills transferred to practice (Kauffeld et al., 2008; Kauffeld & Lehmann-Willenbrock, 2010). Participants were actually asked to write down up to 10 training contents they had been able to apply in their everyday practice (Grohmann & Kauffeld, 2013).

### 2.5.3 Data Analysis

In order to test the structure of the scale extracted from EFA but also to examine the different competing models, including those already considered in the original validation study, we run a CFA

with ML estimation. Given the small size of our sample, different components of fit were evaluated (Hu & Bentler, 1995) considering multiple measures to highlight different aspects of fit (Tanaka, 1993). The  $\chi^2$  ratio ( $\chi^2/\text{degrees of freedom [df]}$ ) was used to evaluate stand-alone models. This index tends to be less sensitive to sample size, and values less than 3 are taken to indicate acceptable models (Kline, 2010). We also used the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR) as well as Confirmatory Fit Index (CFI; Bentler, 1990), Tucker–Lewis Index (TLI), and Akaike Information Criterion (AIC; Akaike, 1987) (Schumacker and Lomax, 2010). As Hair, Black, Babin and Anderson indicated (2010), no definitive rule can determine a good model of fit; therefore, a variety of indices observation is suggested especially in small samples.

Generally, smaller  $\chi^2/\text{degrees of freedom}$  values correspond to better fitting models and are less sensitive to sample size. Values of RMSEA and SRMR up to .08 are generally considered as indicating adequate fit, whereas CFI and TLI values greater than .95 are usually acceptable (Hu & Bentler, 1999).

The reliability of Italian version of the Q4TE was examined by using Spearman-Brown coefficient (split half) for the 2-item subscales, as suggested by Eisinga et al. (2013).

To test the discriminant validity of the scales, a mean comparison was performed between respondents who were able to transfer the learning into practice against respondents who were not. In addition, we investigated the relationship between the Q4TE scales and transfer quantity through bivariate correlation.

Bivariate correlation was also used to investigate the relationship of Q4TE scales with gender, age, organizational tenure, type of training (closed, open skills or both), number of training methodologies used during the training (ranging from 1 to 5 methodologies to be chosen from: frontal lectures, experiential exercises, group and peer discussion, simulations, virtual learning sessions), training duration and time lag between training and survey.



#### 2.5.4 Results

In the light of the contradictory results emerging from EFA in study 1, we wanted to test different models, which had already been tested in the original validation study and which could result in a more consistent factorial structure.

We first tested a 2 inter-correlated factor model solution, in line with our EFA results and with Wang & Wilcox model (2006). We then tested a 1-factor model, encompassing all the items in one sole dimension of learning transfer, as suggested by the results of Horn's parallel analysis. The three-factor solution suggested by our scree plot analysis was not performed as not in line with any theoretical model.

Goodness of fitness indices for the first two models, though, did not result in satisfactory indices. Therefore, we examined the models that had already been tested in the original scale validation: a 2 latent second-order inter-correlated factors model, a 4 latent inter-correlated factors model following Kirkpatrick's four levels model, and a 6 latent first-order factors model (Grohmann & Kauffeld, 2013).

Among all the tested models, only the last one (model 5) showed the best indices of fit, consistently with the original validation study. Actually, it had good  $\chi^2$  ratio ( $\leq 3$ ) and SRMR values (.03). CFI and TLI were satisfactory as well ( $\geq .95$ ). RMSEA was the only indicator that showed slightly higher values than expected (.12), albeit well below the RMSEA values of the other models (Table 2.3).

This final model was thus chosen for the Italian validation of the Q4TE, which is composed of six latent, inter-correlated factors referring to satisfaction, utility, knowledge, application to practice, individual organizational results and global organizational results.

High inter-correlations were found between all Q4TE scales, ranging from 0.60 (between satisfaction and global organizational results) and 0.93 (between individual organizational results and global organizational results).

Table 2.3. *CFA Results with Goodness of Fit Indices Comparison in Study 2*

Model	$\chi^2$	<i>d.f.</i>	$\chi^2/d.f.$	RMSEA	SRMR	CFI	TLI
1) 2 inter-correlated factor model (resulting from EFA in Study 1): Short term evaluation with 6 items Long term evaluation with 6 items	350.60	53	6.61	.21	.06	.86	.83
2) 1-factor model (resulting from Monte Carlo analysis in Study1): 12 inter-correlated items	714.33	54	13.23	.39	.12	.70	.63
3) 2 latent second-order inter-correlated factors and 6 first-order factors (as tested in original validation): Short term evaluation: SAT with 2 items, UT with 2 items, KNOW with 2 items Long term evaluation: APP with 2items, G-IO with 2 items, G-OR with 2 items	672.99	52	13.00	.31	.09	.72	.64
4) 4 latent inter-correlated factors following Kirkpatrick's (1967) four- level model (as tested in original validation): Reaction with 4 items Utility with 2 items Behavior with 2 items Results with 4 items	256.91	48	5.35	.19	.08	.90	.81
5) 6 latent first-order factors (as resulting from original validation): SAT with 2 items UT with 2 items KNOW with 2 items APP with 2items I-OR with 2 items G-OR with 2 items	107.46	39	2.75	.12	.03	.97	.95

*Note:* SAT = satisfaction, UT = utility, KNOW = knowledge, APP = application to practice, I-OR = individual organizational results, G-OR = global organizational results.

Reliability analyses, performed through the Spearman-Brown coefficient using the split half method, showed high internal consistency ranging from .93 (UT, APP and G-OR scales) to .97 (SAT and I-OR scale) (Table 4).

Table 2.4. *Q4TE Scales Inter-correlations (Pearson's R) and Reliability (Spearman-Brown coefficient - split half)*

Scales	SAT	UT	KNOW	APP	I-OR	G-OR
SAT	(.97)					
UT	.798**	(.93)				
KNOW	.806**	.832**	(.94)			
APP	.648**	.839**	.713**	(.93)		
I-OR	.615**	.752**	.628**	.877**	(.97)	
G-OR	.602**	.735**	.618**	.856**	.933**	(.93)

Note: Internal consistency values calculated with Spearman-Brown coefficient are shown diagonally (in parentheses). SAT = satisfaction, UT = utility, KNOW = knowledge, APP = application to practice, I-OR = individual organizational results, G-OR = global organizational results

\*  $p < .05$ ; \*\*  $p < .01$  (two-tailed)

Evidence of discriminant validity was assured by a significantly higher scores in all the six scales for respondents who said they had been able to transfer the learning into practice against respondents who were not, with  $p$  ranging from  $<.05$  in the knowledge scale (mean=14.30, SD=4.81 vs. mean=11.87, SD=4.88,  $t(121) = 2.17$ ,  $p < .05$ ), to  $p < .001$  in the individual organizational results and global organizational results scales (I-OR mean=11.90, SD=5.37 vs. mean=7.48, SD=4.50,  $t(121) = 3.60$ ,  $p = .001$ ; G-OR mean=11.23, SD=5.12 vs. mean=7.36, SD=4.63,  $t(121) = 3.26$ ,  $p = .001$ ).

The relationship with transfer quantity was investigated with Pearson's correlation coefficient. Even if to a modest extent, transfer quantity was positively correlated respectively with the knowledge, application to practice, individual organizational results and global organizational results scales (Table 2.5).

Table 2.5. *Correlations Between Transfer Quantity and Satisfaction, Utility, Knowledge, Application to Practice, Individual Organizational Results and Global Organizational Results (Pearson's R)*

	SAT	UTI	KNOW	APP	I-OR	G-OR
Transfer Quantity	.161	.177	.209*	.223*	.263**	.227*

Note: \*  $p < .05$ ; \*\*  $p < .01$  (two-tailed).

SAT = satisfaction, UT = utility, KNOW = knowledge, APP = application to practice, I-OR = individual organizational results, G-OR = global organizational results

Potential differences between groups of respondents were investigated through bivariate correlations as well. Gender, age, organizational tenure, training duration, time lag between training and survey, number of training methodologies used during the training, and type of training (open, closed or both) were taken into account. No significant relationship was found between the Q4TE scores and gender, training duration, time lag between training and survey, and number of training methodologies used during the training.

However, some statistically significant, albeit low, relationships were found between Q4TE scales and age and tenure. In particular, satisfaction, knowledge and application scales showed negative correlations with both age and organizational tenure.

Type of training also resulted in a positive statistically significant relationship, with open skills correlated with satisfaction and utility scales (Table 2.6).

Table 2.6. *Q4TE Scales Correlations With Gender, Age, Organizational Tenure, Training Methodologies and Type of Training (Pearson's R)*

Scales	SAT	UT	KNOW	APP	I-OR	G-OR
Gender <sup>a</sup>	.009	-.038	-.074	.045	.111	.054
Age	-.201*	-.147	-.269**	-.198*	-.169	-.114
Organizational tenure	-.262**	-.139	-.255**	-.193*	-.157	-.105
N of training methodologies	.132	.096	.070	.035	.040	-.003

Type of training <sup>b</sup>	.303**	.166*	.069	.095	.134	.127
-------------------------------	--------	-------	------	------	------	------

<sup>a</sup> Gender: 1 = *female*, 2 = *male*

<sup>b</sup> 1 = *closed skills*, 2 = *both* (open and closed skills) and 3 = *open skills*. Kendall's  $\tau$  correlations were used as type of training content is an ordinal variable.

\*  $p < .05$ ; \*\*  $p < .01$  (two-tailed)

## 2.6 General Discussion

In the present paper, we illustrated the psychometric properties of the Italian version of the Questionnaire for Professional Training (Q4TE), originally validated by Grohmann and Kauffeld in 2013.

As a short measurement tool, in line with the original authors, we can say that Q4TE provides several advantages: it encompasses both short-term and long-term training outcomes (Wang and Wilcox, 2006) as well as more specific evaluation levels (Kirkpatrick & Kirkpatrick, 2007), it is extremely time efficient, it is applicable to a wide variety of training contexts and aims - either referring to closed or open skill development - and it shows sound psychometric properties.

In translating the Italian version of the tool, we tried to maintain the same advantages listed above, with the aim to respond to the demand for valid and reliable evaluation instruments, which is constantly growing also among Italian L&D experts and practitioners.

We led two studies to explore the consistency and psychometric solidity of the Italian form of the questionnaire as well as to explore its potential links to other individual and training-related variables.

In line with the findings by Grohmann and Kauffeld (2013), in study 1 we run an EFA which led to a two-factor solution accounting for short and long term learning outcomes, which was consistent with Wang and Wilcox conceptual model (2006). Nevertheless, a further factor exploration highlighted the potential presence of only one general factor. This led us to examine different factorial structure models in study 2.

Indeed, in study 2 we performed a five models comparison, which included: a 2 inter-correlated factor model (resulting from EFA in Study 1), a 1-factor model (resulting from Horn's parallel analysis in Study1), a 2 latent second-order inter-correlated factors and 6 first-order factors model (as tested in original validation), a 4 latent inter-correlated factors model following Kirkpatrick's (1967) four-level model (as tested in original validation), and eventually a 6 latent first-order factors model (as resulting from original validation).

As occurred in the international validation of the Q4TE, although at a first stage a two factor solutions seemed to provide a coherent framework, our CFA found the best model fit in the 6 inter-correlated first-order factors model, respectively composed of satisfaction, utility, knowledge, application to practice, individual organizational results and global organizational results scales, represented by 2 items each (research question 1). Such a differentiation of dimensions allows to grasp specific training outcomes at various levels. However, in agreement with Grohmann and Kauffeld (2013), we deem that, if needed, a conceptual aggregation of the 6 dimensions within short and long term outcomes could be useful and coherent with the identified model.

By furtherly exploring study 2 results, we analyzed the capability of the questionnaire to be associated to other measures of learning transfer. In particular, we found that respondents who reported to be able to transfer the learning into their everyday work had significantly higher scores in all the Q4TE scales than respondents who were not able to do it (research question 2). Moreover, we found a significant and positive relationship between the quantity of training contents applied back at work and some of the Q4TE scales, namely the knowledge, application to practice, individual organizational results and global organizational results scales (research question 3). These results are also consistent with what already found by Grohmann and Kauffeld (2013) who discovered that Q4TE successfully differentiated between respondents who could transfer learning from those who could not, and that only application to practice had a positive relationship with transfer quantity. In both cases, it appears that Q4TE scales can successfully discriminate between simple reactions or perception of usefulness

and concrete implementation of new learning and behaviors acquired during the training. This behavioral outcome, more than reactions, is particularly important as it is what, ultimately, makes training effective (Aguinis & Kraiger, 2009; Bell, Tannenbaum, Ford, Noe & Kraiger, 2017).

Reliability of the Q4TE, albeit calculated on 2-item scales, proved to be high and in line with the original validation. In this regard, we chose to use the split-half method (Eisinga et al., 2013), as it provided further solidity to the measurement of the scales internal consistency.

Eventually, we also investigated if the Q4TE scores could be associated to other individual or training-related variables (research question 4). Age and organizational tenure showed a significant inverse relationship with Q4TE scores, highlighting how learning transfer can be stronger in a younger and more junior population. This results, albeit just hinted, seems to suggest that training can represent a useful development opportunity, which can be exploited at the most when expertise and seniority are less present but motivation to transfer is higher (Massenberg, Schulte & Kauffeld, 2017).

Training type can also play a role in learning transfer, as interventions aimed at open skills development seems to lead to higher learning transfer. In line with previous pieces of research, this may be due to the possibility – in open skills – to have a wider variety of contexts to transfer learning (Baldwin, Ford, Blume, 2009; Blume et al., 2010).

## **2.7 Limitations of the study**

Among the several limitations of this study, we should list limits which are intrinsic to the Q4TE itself and limits which are more specifically related to our study. With regard to the first type of limit, as also Grohmann and Kauffeld highlighted (2013), the current study relied completely on computer-based, cross-sectional, retrospective samples. The simultaneous administration of measures referring to different training evaluation levels (Kirkpatrick & Kirkpatrick, 2007) can actually lead to different outcomes, as highlighted in other previous meta-analyses (see Alliger, Tannenbaum,

Bennet, Traver & Shotland, 1997). This limitation needs to be addressed with further research aiming at measuring the different outcomes and levels at different times.

Secondly, the Q4TE is a self-report scale, which can lead to several response bias (i.e. Podsakoff, MacKenzie & Podsakoff, 2012). This is particularly true when assessing outcomes referring to behavior (application to practice) and organizational results (individual or global). This limit could definitely be overcome with the use of more objective measurement methods, such as performance indicators, success cases collection and return on investment estimates (i.e. Brinkerhoff, 2006; Kirkpatrick & Kirkpatrick, 2016; Phillips, 2007).

Nonetheless, this scale is capable to provide a time and cost efficient measure of outcomes which would be more expensive to identify through other methods.

Finally, the Q4TE six scales are made of 2 items only. Although some researches do not suggest this type of scale construction (Credé, Harms, Niehorster & Gaye-Valentine, 2012; Edinga et al., 2013; Hinkin, 1998; Loo, 2002), such a short measure can evidently provide a time-saving, practical tool that can be easily used to monitor the learning outcomes of large-scale or low-budget training initiatives, which cannot benefit from big investments on evaluation.

About our specific study, we should acknowledge some further limitations. The first one is related to the sample size, which is small and cannot represent at best the variety of training recipients to whom the Q4TE could be addressed. Further research with a wider sample could be very advantageous, both for the representativeness of the study and for the psychometric properties of the scale itself.

With reference to this, a second limit needs to be addressed. Although the six-factor model in our confirmatory factor analysis was in line with the results of the Q4TE original validation and did show the best fit indices compared to the other competing models, we are aware that RMSEA may not be satisfactory from a purely statistical point of view, because values  $>.1$  are generally deemed as indicating poor fit. Although goodness of fit indices cannot be represented by fixed values defined



once for all (Hair, Black, Babin & Anderson, 2010) and, in particular, an absolute value for RMSEA is quite debated in the literature (Cangur & Ercan, 2015; Chen, Curran, Bollen, Kirby & Paxton, 2008; Rigdon, 1996), we strongly invite other researchers to furtherly test the Italian version of the Q4TE by enlarging the sample and checking the factorial structure found in this study, in order to strengthen the soundness of the Italian version of the tool.

Another limit that we would like to underline is the lack of additional concurrent measures, more related to contextual factors (and not just individual ones), which could shed light on the complex interaction existing between a training intervention, its recipients, its designers, the work context hosting it and the relational, cultural or even symbolic dimensions (Langher, Brancadoro, D'Angeli & Caputo, 2015; Caputo & Langher, 2015) which enable its effectiveness within an organization or institution.

Further research could include the observation of other variables related to individual, training-related and organizational dimensions (Baldwin & Ford, 1988; Bocciardi, Caputo, Fregonese, Langher & Sartori, 2017; Diamantidis & Chatzoglou, 2014; Holton, 2005; Kontoghiorghes, 2004) which may reduce, enhance or interact with training outcomes and potentially also with Q4TE scores. With reference to this, also in response to the different limitations already identified, further studies could benefit from longitudinal designs, which can conceptualize the training and its evaluation as a multifactorial process influenced also by time and by what precedes and follows the classroom sessions (Argentin, Pennisi, Didoni, Abbiati & Caputo, 2014).

## **2.8 Implications for practice**

In agreement with the Q4TE authors, we propose this tool as a very agile measurement capable to collect comparable results of several training interventions and settings, relying on a very well-known model which is widely used in training and L&D practice (Kirkpatrick & Kirkpatrick, 2007; Wang & Wilcox, 2006).

Being the Q4TE usable for different types of training in different kinds of sectors and industries, it is evident its applicability and capability to provide a benchmark for diverse sorts or stages of training interventions. In addition, differently from English speaking countries, in Italy we do not have access to many other valid learning transfer measurement tools. Therefore the Italian version of the scale represents an important first step in this direction.

Eventually, the short nature of the tool can definitely allow the combination with other quantitative (Phillips & Phillips, 2012) and qualitative measures (Guerci & Vinante, 2011), aiming at both practice or research goals.

In a challenging market in which L&D investments become more and more limited and accurate, having a low cost but yet valid and fast evaluation measure for professional training can represent a great opportunity to spread a culture of intervention assessment and improvement. In such a context, the Italian version of the Q4TE is valuable and usable tool, capable to fill the current vacuum of evaluation instruments and practices among several L&D practitioners and experts.

## Chapter 3

# **The influence of Affective Investment, Clinical Process Consultation and Participants' Expectations on Learning Outcomes: a longitudinal study on interpersonal skills training**

### **3.1 Introduction**

In the last decades, in a world featured by growing and disruptive transformations and changes, inter-personal skills training has been considered an especially salient tool for developing people's skills and organizational coexistence systems (i.e. Carli & Paniccchia, 1999; Robles, 2012). The factors and the conditions which make this kind of training effective have been studied and often challenged for the peculiarity and the complexity of the processes that interpersonal skills development involve, before, during and after the training itself (Argyris, 1991; Bedwell, Fiore, & Salas, 2014; Georges, 1996; Laker & Powell, 2011). Organizations conceived as cultural systems, suggest that unconscious representations and assumptions (Schein, 2010) are intertwined with explicit demands and decisions, particularly when it comes to dealing with change, growth, development and thus learning and training (Argyris & Schön, 1997). In this work, we focus on some of these dimensions, within the historical tripartite division of individual, organizational and training-related predictors (De Rijdt, Stes, Van der Vleuten, & Dochy, 2013; Baldwin & Ford, 1988), which may influence the outcomes of interpersonal skills training. A literature review of the most consolidated factors and the ones that still need attention is made in order to highlight why the exploration of more symbolic and affective dimensions can be beneficial for the understanding of learning transfer in interpersonal skills training.

#### *3.1.1 Literature Review*

*Individual factors.* Among the first dimensions to be observed, individual factors have been deeply studied and acknowledged as relevant predictors of learning transfer. Self-efficacy, motivation to learn, cognitive ability, goal orientation, and even some personality traits have been listed amid

these factors (Chia & Khoo, 2010; Dan & Amanuel, 2005; Laine & Gegenfurtner, 2013; Liebermann & Hoffmann, 2008; Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012; Sitzmann & Weinhardt, 2017). Also trainees' expectations have been partially explored (Noe, 1986; Tannenbaum & Yukl, 1992; Baldwin & Ford, 1988). In some recent contributions, the influence of trainees' expectations related to career, personal, job-related perceived benefits (Bulut & Culha, 2010), practical relevance of the training (Bates, 1997; Liebermann & Hoffmann, 2008), and outcome expectancies (Scaduto, Lindsay, & Chiaburu, 2008) have been studied in their influence on learning transfer. These studies observed the impact of trainees' expectations through quantitative tools and without focusing on the type of training at hand. However, in agreement with Laker and Powell (Laker & Powell, 2011), we state that interpersonal skills training can generate very different expectations, if compared to technical skills interventions, as it aims at more open and ambiguous outcomes which may also generate more variegated experience anticipations. Such expectations can mirror culturally influenced attitudes and symbolizations activated by imagining the training within a specific work context (Langher, Brancadoro, D'angeli, & Caputo, 2014). This is why an exploration of the influence of this dimension on learning outcomes could be relevant through the analysis of open-ended responses, which is something that - to our knowledge – has never been done before. This last dimension, in particular, is interesting to observe as pragmatically relevant and easily accessible by training program managers and practitioners.

*Organizational factors.* The environmental factors that can influence learning outcomes are numerous and have gained increasing attention over the years (i.e. Bell, Tannenbaum, Ford, Noe, & Kraiger, 2017). Among several organizational dimensions, strong relationships have been found between training transfer and transfer climate (Blume, Ford, Baldwin, & Huang, 2010; Egan, Yang, & Bartlett, 2004; Kodwani, 2017; Lim, 2006; Lim & Morris, 2006; Peters et al., 2014), social support (Alvelos, Ferreira, & Bates, 2015; Howardson, 2015; Massenberg, Spurk, & Kauffeld, 2015), job satisfaction (Egan et al., 2004; Raquel & António, 2007; Rahim Zumrah, 2013), or organizational

affective commitment (Bulut & Culha, 2010; Chiaburu, Van Dam, & Hutchins, 2010). The role of more representational aspects like training reputation (Howardson, 2015) cultural dimensions (Simosi, 2012; Egan, 2008), attitudes towards the organization have also been explored (Sungjun, Huh-Jung, & Jinkyu, 2015). Such representational aspects, though, have often been grasped through rational-declarative constructs (i.e. attitudes, commitment, cultural habits, etc.), measuring the employees' perceptions of the organization through a rational process. In addition, although the role of affects in training transfer has been underlined (Aguinis & Kraiger, 2009), works on how affects influence training remain rare (Howardson, 2015), and especially the ones which do that by focusing not just on individual affectivity (Daniels, Boocock, Glover, Hartley, & Holland, 2009; Howardson & Behrend, 2016; Machin & Fogarty, 2004) but on more shared emotional and symbolic dimensions embedded in the organization.

In this study, we use the affective investment and affective symbolization constructs (Carli & Panaccia, 1999, 2004; Fornari, 1979; Salvatore et al., 2003; Voronov & Vince, 2012) to obtain additional inputs about the role of shared and mainly unconscious emotional dynamics within the training transfer process, beyond individual positive/negative affectivity at work.

*Training-related factors.* Among training-related factors, delivery methods have been widely explored as key predictors of learning outcomes and training transfer (i.e. Noe, Clarke & Klein, 2014). Instead, the steps of consulting processes preceding every intervention have been given less consideration (Baldwin, Ford, & Blume, 2009; Bennett & Arthur, 2001; Tannenbaum & Yukl, 1992). Among these, needs analysis has been raised as an area of attention in training evaluation (Arthur, Bennett, Edens, & Bell, 2003; Latham, 1988; Salas et al., 2012; Sørensen, 2017; Tannenbaum & Yukl, 1992). Salas and Cannon-Bowers (2001) differentiate training needs analysis between organizational analysis and job/task analysis. In our view, while the latter is fundamental in identifying specific “closed skills” to be enhanced in the light of a gap (Yelon & Ford, 1999), interpersonal skills development, conceived as organizational development intervention, may greatly benefit from using a

process consultation approach (Cummings & Worley, 2009; Lambrechts, Grieten, Bouwen, & Corthouts, 2009). As organizational development is the outcome of context-dependent explicit and implicit meanings and change anticipations, this approach is useful to grasp the local significance of development needs. To better frame the consultancy methodology analyzed in this study, we refer to cultural analyses and process consultation models (Carli & Panicia, 1999, 1986, 2003; Petitta & Ghezzi, 2012; Schein, 1999). Within these perspectives, the phase that precedes training is a crucial moment: here a consultant can go beyond job/task need analysis, and adopt a “clinical approach” to inquire into the client’s demands (Carli & Panicia, 1999, 2003; Carli & Giovagnoli, 2011; Cooke, 1997; Schein, 1995). Such an approach, by focusing on the client’s problem and stimulating a reflective attitude throughout the consultancy process (Argyris & Schön, 1997; Schon, 1983), uses the demand of training as an observation, reflection and learning opportunity for the client and the organizational context involved. Although widely appreciated in practice, studies analyzing the impact of this kind of approaches are very rare (Coget, 2009; Cummings & Worley, 2009).

In addition, in a quest for the identification of the enabling conditions of learning transfer (Aguinis & Kraiger, 2009), we also observed the role of target population (i.e. organizational roles involved in training) as a moderation variable for learning long-term outcomes (Baldwin et al., 2009).

### *3.1.2 Learning levels and training transfer*

Learning levels have been widely studied and different methodological approaches and tools have been used in order to understand the different levels at which learning can happen and can be measured. In the practitioners’ community, the Kirkpatrick’s model is one of the most used and popular (Kirkpatrick, 1967; Kirkpatrick & Kirkpatrick, 2016). The model considers four levels at which one can measure training impacts: reaction (satisfaction and affective responses towards the training), learning (increase in knowledge or attitudes); behaviour (change in conduct), and results (outcomes on individual or organizational performances). In order to determine the actual training benefits, it is key to evaluate not only short-term outcomes (i.e. reactions towards the training), but

also participants' long-term outcomes, namely training transfer (i.e. application to practice; Wang & Wilcox, 2006). Several authors have integrated or built upon Kirkpatrick's model, challenging, restructuring or validating it (Bates, 2004; Burke & Hutchins, 2008; Grohmann & Kauffeld, 2013; Holton, 2005; Pineda, 2010; Ritzmann, Hagemann, & Kluge, 2014; Wang & Wilcox, 2006).

Even being aware of the criticism addressed to this model, for this study, we aimed at finding a tool that could measure learning at different levels (from reaction to transfer), which could be applicable to interpersonal skills development, while being agile and usable among different trainees' groups and interventions. To account for such practical demands, we have warily chosen to focus on a limited number of evaluation aspects (Grossman & Salas, 2011). Within this rationale, the Questionnaire for Professional Training Evaluation (Grohmann & Kauffeld, 2013) was considered suitable for this aim, as it measured learning at different levels (from satisfaction to organizational results), summarized in short and long-term outcomes (Wang & Wilcox, 2006). Therefore, for the purpose of this study, we led its validation in the Italian context (see Chapter 2).

### *3.1.3 Interpersonal skills development: a peculiar type of training with many respects*

Although the goal and the content of training is a crucial factor for its effectiveness, training-related variables have been partially neglected (Blume et al., 2010). Indeed, training in general has often been associated to several benefits for the individuals and the organizations, in spite of the type of training led (Aguinis & Kraiger, 2009; Owens, 2006; Tharenou, Saks, & Moore, 2007). While research on generically closed and open skills have shown the latter to lead to higher training transfer (Arthur et al., 2003; Blume et al., 2010), research on interpersonal skills training has been lacking, also because such skills, due to their peculiarly open nature, risk to be vague, generic and ineffective if not put into context and perspective (Clarke, 2006; Laker & Powell, 2011). With some interesting attempts being made (Bedwell et al., 2014; Ran & Huang, 2017; Van Der Locht, Van Dam, & Chiaburu, 2013), the study of interpersonal skills training still needs attention and focus (Yelon, Ford, & Bhatia, 2014) as well as the observation of similar interventions taking place in real and multiple organizational

contexts (Goldstein & Ford, 2002).

In the type of interventions observed in this study, we explored a training experience aiming more at reflection than content acquisition (Carli & Paniccia, 1981, 1999; Schön, 1987), benefiting from less content delivery and more active experimentation and group reflection (Laker & Powell, 2011; Parente, Stephan, & Brown, 2012). This type of training intervention does not “teach” trainees predefined behaviors aiming at the direct application of new skills. Rather, it aims at increasing reflective capabilities and awareness of one’s and others’ emotional and behavioral responses within the organizational relationships and context, developing richer categories of understanding and wider sets of available heuristics and courses of action (Bendell, J., & Little, 2017; Schön, 1987; Slovak, Frauenberger, & Fitzpatrick, 2017). This type of training can be addressed to different organizational roles and can focus on the improvement of interpersonal relationships, either vertically (manager towards collaborators and teams) or horizontally (colleagues toward peers or team). In both cases, the sharing of new content (theoretical models, tools and best practices) encompasses a specific context-based reflection about relational dynamics, achievement of professional objectives, ownership and personal responsibility towards change and relational skills improvement. Training methodology consists of simulations and roleplays (either analogical or realistic), debriefings, critical-incidents analysis, 1:1 or group feedback and real case sharing and discussion (Kolb, 1984; Kolb, Boyatzis, & Mainemelis, 2001).

If designed with the above described premises, we could say that this kind of training acts “clinically” (Schein, 1983, Schein, 1995; Carli & Paniccia, 1999) that means involving clients and trainees in becoming aware of their emotional dynamics and of the assumptions behind them, while facilitating the autonomous discovery of new and more adaptive ways to solve problems together at work.

In such settings, individual, organizational and training-related factors, can be reconsidered through a more symbolic and affect-oriented lens, in order to observe their contribution in influencing



learning transfer.

### **3.2 Aim of the study**

Within a psychodynamic and “clinical” framework of interpretation (Carli & Paniccchia, 1999; Schein, 1999), we aim at observing the role of relatively new predictors, such as participants’ expectations (individual factors), affective investment towards the work context (organizational factors), and clinical process consultation (training related factor), in determining short and long term learning outcomes of interpersonal skills training interventions.

#### *3.2.1 Participants’ expectations*

As already highlighted, interpersonal skills training may generate participants’ expectations which may be wider than just learning new skills (Laker & Powell, 2011) and which may be more or less adaptive for learning transfer. Expectations anticipate an object of reality and can provide clues on? what type of involvement and emotions will be used in the relationship with such an object (Fanelli et al., 2006; Langher et al., 2014; Mannarini, Ciavolino, Nitti, & Salvatore, 2012). We considered trainees’ expectations relevant for the outcomes of the training itself and, at the same time, we wanted them to be reported in a discursive form to access them as they rise in participants’ minds. Previous studies have shown the influence of discursive training framing practices on learning outcomes (Brinkerhoff & Montesino, 1995). In addition, from an interactionist point of view, by expressing their expectations towards the training, participants are already creating the learning experience and the training relationships in their minds (Nugus, 2008). Ultimately, this information is often accessible to many of the actors managing a training intervention, which makes this practice usable for a variety of stakeholders in this kind of intervention

After testing different theoretical frameworks, we found recurrent themes in the expectations that interpersonal skills program solicited in respondents. We considered these dimensions as representational anticipations of work-related objects and not just as individual drives (Ruggieri,

Pozzi, & Ripamonti, 2014; Carli, Paniccia, Giovagnoli, Carbone, & Bucci, 2016; Fanelli et al., 2006; Langher et al., 2014). These distinct types of training anticipations, , may have been influenced by personal attitudes but also by consulting and organizational variables (i.e. what had been communicated about the training or what participants felt would be useful or expected in their organization or role).

### *3.2.2 Affective Investment and Symbolic Motives*

Learning transfer in experiential interpersonal skills training interventions can be highly demanding in terms of effort, personal choices and responsibility (Blume et al., 2010; Yelon et al., 2014). Therefore if the organizational context is considered worth of such an investment, a positive affective representation of the context should enhance the learning transfer.

We use the construct of affective investment, and affective symbolization, to explore how affects can be conceived not as individual dimensions (Machin & Fogarty, 2004) but as symbolic devices connecting individuals with their work contexts through an affectively connoted representation. Affective symbolization, in particular, can be conceived as the product of the symbolic equations that we operate in order to reduce the ambiguity of our relational contexts, and to assess if they are good or bad, generative or sterile, powerful or powerless and, eventually, worth of effort or dismissal (Carli et al., 1986). Through the affective symbolization process, we get oriented in our world, thanks to a socially shared meaning making process (Salvatore & Freda, 2011) from which work contexts are not exempt.

Following a specific research tradition (Carli & Esposito, 1971; Carli & Pagano, 2008; Fanelli et al., 2006; Saraceni & Carli, 1970), for the purpose of this study we have created a scale (Work Symbolic Motive Scale – Work SMS) aimed at collecting a general dimension of affective investment at work, composed of four adjectival subscales grasping the main affective symbolizations, or symbolic motives, evoked by the organizational context (ref. chapter 1). Adjectives were chosen (instead of verbal items) for their capacity to evoke emotional representations of objects. Emotions, in

this perspective, are conceived as intrinsically relational phenomena, providing information not only about the self and its needs, but also about the type of relationship established with external objects (Matte-Blanco, 1975). This is why a motivational framework is used to summarize some of these emotional experiences (McClelland, 1961; Litwin & Stringer, 1968): it does not refer to individual drives but to different modes to be in relationship with an object of reality, like the work context, through an emotionally connoted representational process (Salvatore et al., 2003). These general emotional connotations of the work contexts, nonetheless, have their own specific narratives to be discovered and understood locally, also through the training. Indeed, the symbolic motives used in this study are conceived as indicators of “local cultures” (Carli & Giovagnoli, 2011) or, in other words, unconsciously shared affective representations, depending on the relationships that employees have with their work context, while interacting with each other (Saraceni & Carli, 1970; Litwin & Stringer, 1968; Salvatore et al., 2003). They are not merely environmental factors neither strictly individual ones. They refer to the context-individual relationship (Carli, 1995; Mannarini et al., 2012; Paniccia, Giovagnoli, & Giuliano, 2008).

To get more in detail of the symbolic motives taken into account in this study, below we describe the four dimensions which are measured through the Work-SMS and the related emotional experience evoked:

Achievement symbolic motive refers to productivity, effectiveness and efficiency qualities. The evoked emotions are linked to mastery, goal accomplishment and capability.

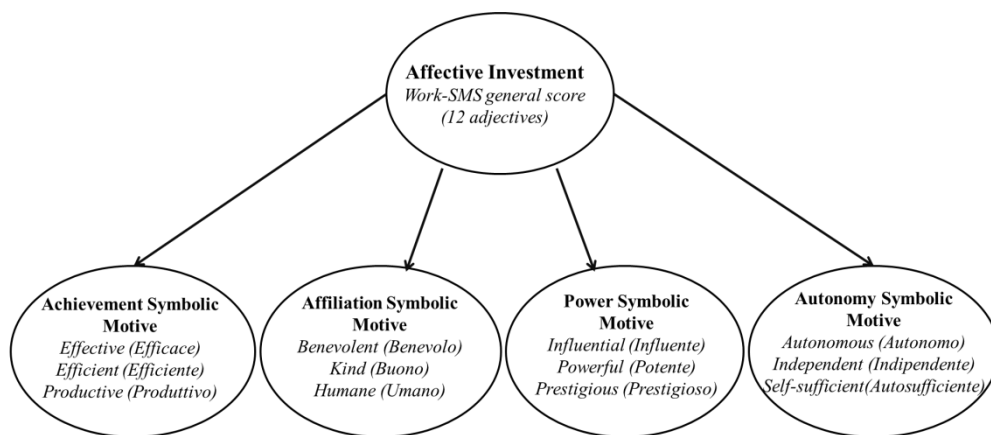
Affiliation symbolic motive refers to kindness, benevolence, humaneness qualities. The evoked emotions are linked to acceptance, intrinsic goodness and sense of belonging.

Power symbolic motive refers to status, prestige and influence qualities. The evoked emotions are linked to might, potency and capacity to condition others' behaviors or decisions.

Autonomy symbolic motive refers to independence, freedom of action and self-sufficiency qualities. The evoked emotions are linked to control of one's own freedom, self-determination and self-focus.

None of the four dimensions is necessarily adaptive or maladaptive. They are solely indicators of the collusive setting in which trainees act and will transfer their learning (Schein, 2013). These dimensions should typically be less conscious than, for instance, job satisfaction but yet may be transformed by interpersonal skills training. The role of such dimensions and their change after training will be observed in their influence on learning transfer.

Figure 3.1. *Dimensions and Adjectives composing the Work-SMS and Achievement, Affiliation, Power and Autonomy Subscales*



### 3.2.3 Clinical process consultation

Although interpersonal skills training may be considered a typical L&D request, for which a “standard” interpersonal skills content delivery could be applicable (i.e. pre-defined lectures around emotional intelligence, communication, leadership, teamwork, etc.), if considered through a clinical approach, such a request may hide more complex dynamics, meanings or needs. Actually, interpersonal skills training often aims at changing mindsets, attitudes and behavior style which link to wider and yet context-specific organizational development ambitions (Cummings & Worley, 2009).

When faced with these demands, consultants may find clues of the relational issues that clients are willing to change through the training demand itself (Carli & Paniccchia, 1999; Schein, 2013). That is why the analysis of such a demand is a relevant phase to better frame, understand and intervene within the interpersonal skill development domain (Arthur et al., 2003; Carli & Paniccchia, 1999; Salvatore, 2016; Schein, 1999).

Many authors suggest that, in front of similar requests, consultants should resist playing a technical/expert role (Carli, 2006b; Gaj, 2007; Schein, 1999) as this would underestimate the complexity of the issue at hand, create a dependency towards the consultant and, ultimately, limit significantly the intervention potential (Salvatore, 2006). Alternatively, this awareness would require the consultant to explore the clients' demands and possibly reformulate it with them, through what Schein has called a *clinical inquiry* process (1993), or what Carli and Paniccchia named *analysis of demand* (2003). This phase is very relevant as it leads to better needs analysis, problem specification and enhanced ownership about the development process requested.

In addition, consultants can act clinically throughout the need analysis process (Carli & Paniccchia, 1999; Schein, 2006), by researching information about the relational dynamics being acted by the actors involved (i.e. consultant, clients, HR, managers, collaborators, team members) within the consultancy relationship itself (Argyris & Schön, 1997; Carli & Paniccchia, 1981; Carli, 2006b; Schein, 1995). This phase can be led involving different stakeholders, recipients, clients or customers, and through different tools (interviews, focus groups, surveys), at different stages and depths. However, this should not be considered as a mere diagnosis phase, rather as a research-intervention (Bradbury & Reason, 2006), whose results represent the first stages of the training implementation itself.

Furthermore, in the light of many studies highlighting that the closer the training to the recipients' realities, the easier the transfer in their work contexts (Burke & Hutchins, 2008; Salas et al., 2012;), training design customization is key to make the training content job-relevant.

Finally, the outcome of the need analysis can be shared with all the actors involved, in order to create a feedback and involvement opportunity, while increasing the awareness and the sense of ownership towards change (Schein, 1993).

The choice to lead a standard expert consultation or a clinical process consultation depends on several relational or practical aspects, among which we may list the relationship and the trust levels with the client organization, the defensive mechanisms present within the organizational system (Argyris & Schön, 1997), the readiness for the consultant or for the group/client to tackle dysfunctional dynamics (Salas et al., 2012), the allocated resources for the intervention. We are interested in observing the impact of these steps on learning transfer, conceiving this process as a set of actions that consultancy can do prior to the training (Table 3.1).

Table 3.1. *Features of Process Consultation and Standard Technical/Expert Consultation*

	Standard technical/expert consultation	Clinical process consultation
Consultation phase	<i>Expert's behaviors</i>	<i>Consultant's behaviors</i>
<b>Training request management</b>	<ul style="list-style-type: none"> <li>Proposes interpersonal skills topics and solutions</li> <li>Describes expected outcomes to the client</li> <li>Requires pre-condition resources</li> <li>Solicits compliance about the provided solutions</li> </ul>	<ul style="list-style-type: none"> <li>Inquiries about interpersonal dynamics and the reasons-why of the program</li> <li>Negotiates possible outcomes with the client</li> <li>Leverages on resources available</li> <li>Solicits curiosity about alternative solutions</li> </ul>
<b>Recipients' needs analysis</b>	<ul style="list-style-type: none"> <li>Does not involve training recipients before the training, as the course of action is predefined</li> </ul>	<ul style="list-style-type: none"> <li>Involves the training recipients before the training (i.e. focus groups, interviews or open-ended response surveys) to define the course of action</li> </ul>
<b>Content definition</b>	<p>Selects training content (activities, models and theory) according to:</p> <ul style="list-style-type: none"> <li>Expert's available activities, models and theory</li> <li>Expert's level of knowledge on the subject</li> </ul>	<p>Selects training content (activities, models and theory) according to:</p> <ul style="list-style-type: none"> <li>Recipients' needs</li> <li>Recipients' level of knowledge on the subject</li> </ul>

**Alignment and reporting**

- Communicates diagnosis to the client/recipients
- Provides contents about the interpersonal skills topic
- Reports back what observed to the client and recipients (co-diagnosis)
- Provides feedback about interpersonal dynamics acted during the consultancy/training

---

Inspired by Schein (1995), Carli & Panicia (1999) and Carli (2006)

*3.2.4 Hypotheses*

In line with this framework, we formulated three main hypotheses, observing the role and the interaction of these variables from different points of view:

- H1a: Expectations towards training, affective investment, and clinical process consultation, measured prior to the training, contribute to short term learning outcomes (satisfaction, utility perception and knowledge increase) after the training, controlling for pre-training self-efficacy, job satisfaction, and target participants.
- H1b: Expectations towards training, affective investment, and clinical process consultation, measured prior to the training, contribute to long term learning outcomes (application, individual and global organizational results) after the training, controlling for pre-training self-efficacy, job satisfaction, and target participants.
- H2a: An increase in Affective investment after training predicts short and long-term learning outcomes, controlling for other organizational, individual and training related variables.
- H2b: An increase in one of the work symbolic motives of achievement, affiliation, power and autonomy predicts short and long-term learning outcomes, controlling for other organizational, individual and training related variables.
- H3a: Target participants variable moderates the relationship between affective investment, and related symbolic motives, and long term learning outcomes, as a proper indicators of learning transfer.

- H3b Target participants variable moderates the relationship between clinical process consultation and long term learning outcomes.
- H3c Target participants variable moderates the relationship between expectations and long term learning outcomes.

### 3.3 Methodology

We conducted an observational longitudinal field study in partnership with an international training and development firm, whose consistency in methodology guaranteed us stability and reliability in the training strategies used.

#### *3.3.1 Interventions recruitment procedures*

The interpersonal training interventions observed had a duration of 16 hours each and were held with a minimum of 6 to a maximum of 12 participant/consultant ratio.

The interventions had to be aimed at reflection and deeper understanding of social and relational dynamics among colleagues at work. The type of interventions observed were similar in duration, methodology and trainers' background (all psychologist consultants, working for the same firm and following the same training methodology).

The difference was in target participants: managerial roles (targeted to a population directly responsible for 2 to 10 staff members) and professional roles (targeted to a population not directly responsible for any staff member). The former interventions were more focused on understanding and improving the dynamics with the directly managed staff members; the latter were more focused on understanding and improving the relational dynamics with team members and peer colleagues.

The total amount of training interventions analyzed included 10 interventions within 7 different private sector companies, ranging from finance, energy, communication, manufacturing and tourism sectors.



### 3.3.2 Sample

At time 1, we surveyed 155 employees composed by 73% of men and 27% of women (mean age=38.40; SD=10.13). Average tenure in the organization was 9.10 years (SD=7.60). Managerial roles were 54.7 % of the total, while professional roles were 45.3%. Training interventions analyzed were 10, with 5 targeting managerial roles and 5 targeting professional roles.

At time 2, through an online platform, we were able to collect 137 surveys with usable data.

At time 1 participants were welcomed to the training program and were asked to complete an online survey including: demographic information, affective investment, job satisfaction, expectations toward training, occupational self-efficacy measures. At the same time, the consultants managing the interventions were interviewed in order to collect information about the process consultation steps done before the training.

At time 2, after 6-8 weeks the interpersonal training took place, affective investment, job satisfaction and occupational self-efficacy, and learning outcomes were remeasured.

All respondents were guaranteed anonymity and provided their informed consent to participate in the study.

We minimized question order effects and common source measurement biases by separating the measurement of predictor and criterion variables in time through a longitudinal design (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), which increased power, and allowed more comprehensive measurement, temporal precedence and causal inferences (Curran & Bauer, 2011).

### 3.3.3 Measures

*Learning outcomes and transfer: Questionnaire for Professional Training Evaluation (Q4TE)*

The Italian version of this 12-item self-report scale was validated appositely for this study and was chosen as it allowed measuring learning impacts at different levels in different evaluation contexts and organizations, among different training recipients. Starting from Kirkpatrick's (1967) and Wang and Wilcox's models (2006), it evaluates different training outcomes related to satisfaction,

utility, knowledge, application to practice, individual organizational results and global organizational results. Each of the six dimensions of the Q4TE is made of two items, which make it an easy-to-use tool for training evaluation. For practical purposes and in line with what emerged from our and the authors' original validation (Grohmann & Kauffeld, 2013), the six dimensions in this study were clustered in short and long term outcomes (specifically *learning transfer*). The answer scale ranges from 0 (completely disagree) to 10 (completely agree). The scale shows consistent and positive relationships with learning transfer and transfer quantity. In our sample, Cronbach's alfa for both short and long term outcomes were good, varying from .88 for the former, to .94 for the latter. The scale is recommended to be administered at least 4 weeks after the training to allow participants to use and put in practice what learned.

*Affective Investment: Work SMS.* This 12-item scale was validated for the purpose of this study and originates from previous studies in the psychosocial and psychodynamic field (Carli & Esposito, 1971; Carli & Pagano, 2008; Fornari, 1979; Langher et al., 2014; Litwin & Stringer, 1968; Saraceni & Carli, 1970;). The scale owns sound psychometric properties and is a summary of the quality endowment that a subject ascribes to her/his work context (Salvatore, 2016). The scale is based on four sets of adjectives, referring to the four symbolic motives of achievement, affiliation, power and autonomy, deriving from previous motivational studies (Deci & Ryan, 2010; Lammers, Stoker, Rink, & Galinsky, 2016; McClelland, 1961; McClelland & Boyatzis, 1982;). The symbolic motives are conceived as individual-context dimensions, emerging from the interaction between individuals with their work contexts, from which different affective symbolizations stem (Carli & Paniccia, 2004; Fornari, 1979). Affective symbolizations (or symbolic motives) can be considered affective representations of the work context, soliciting different levels of each of the four symbolic motives, but composing – overall – a general scale of what we called “affective investment”, that is the feeling that the context is satisfactory and preservation worthy (Voronov & Vince, 2012). Reliability scores for this study were considered satisfactory as the overall scale had a Cronbach's alfa of .86 and the

four subscales had .76 for achievement, .78 for affiliation, .76 for power and .81 for autonomy.

*Clinical process consultation checklist.* In order to identify the extent to which a clinical process consultation had taken place, we created a checklist which was consistent with clinical approaches to the organizational intervention (Carli & Paniccchia, 1981, 1999; Schein, 1995). After every training delivery, each consultant was asked, if prior to the intervention she/he had done the set of consulting actions referring to the process consultation steps previously described: 1) inquiry and reformulation of the training request (i.e. exploration of the reasons of the program, negotiation of expected outcomes, building on resources available, solicitation of curiosity towards alternative solutions), 2) recipients training needs analysis (i.e. live focus groups, interviews or surveys to understand recipients' needs and expectations towards training), 3) training content definition and customization for the specific organizational contexts (i.e. activities, models and theory selection according to recipients' needs and level of knowledge on the subject) 4) analysis results sharing and alignment with clients and recipients (i.e. reporting back to the client and training recipients about dynamics collected during the consultancy inquiry). The result of this checklist was a five-point scale which could vary according to the presence of zero to four of these actions. If the consultant answered positively to each of the four sections, this would lead to assigning 4 points to the intervention. If the consultant answered negatively to all the four points, this would lead to 0 score on the scale. Given the categorial typology of items, the checklist reliability was calculated with the Kuder-Richardson formula, resulting in a coefficient of .62. Albeit low, we considered it suitable for a newly developed scale (Nunnally, 1978) which had the purpose of serving the pragmatic aim of guiding the consultant's reflection, and which was composed by solely 4 items with a 2-category response (Peterson, 1994).

*Participants' expectations: open-ended question.* In order to identify the participants' main expectations, we chose the open question "What do you expect from this training?", the answers of which were analyzed by two researchers. We chose qualitative methods instead of quantitative ones because of the capability of open questions to detect the complexity of individual perception towards

the training (Patton, 1987). In a reiterative grounded process, after reading all the answers, two independent researchers coded the textual responses by identifying suitable models of interpretation, in line with social research guidelines (Gilbert, 2008). This process helped us create operational definitions for the coding of each expectation, which differed according to the main goal from the training (Table 3.2). The most frequent dimension (29%) referred to *skill development goals* (increase of interpersonal competences, knowledge, skills, in order to attain better professional performances or goals); the second most frequently referred to was *relatedness goals* (increase of intimacy, mutual knowledge, group cohesion, development of a positive internal climate); the third most frequent (17%) referred to *personal growth goals* (increase in self-management skills, personal development with no specific reference to the work context, self-focus and concentration), the least frequent (9%) referred to *influence increase goals* (increase of influencing skills in order to obtain others' buy-in and engagement, capability to lead or change others, or gain status growth within the organization). Final scores for each respondent were calculated by assigning one prevalent dimension to each response. Overall, 19% of all respondents were not coded. Inter-coder agreement was calculated by Cohen's K coefficient. Cohen's K value was 0.87 for skill development, 0.85 for relatedness, 0.81 for personal growth and 0.87 for influence increase.

Table 3.2. *Examples of Participants' Expectations Analyzed (% Frequency).*

Goals	Expectation examples "What do you expect from this training?"
<b>Skill development</b> (29% of total responses)	<i>To simulate tough situations that we are experiencing at work and receive feedback and suggestions around how to better handle them</i> <i>Reflection tips and new ways to improve my managerial skills, for the good of my colleagues and therefore for the good of the company.</i> <i>A better understanding of the job done by colleagues from other departments in order to increase our coordination</i>
<b>Relatedness</b> (26% of total responses)	<i>I hope I can strengthen and deepen the human aspect with the entire group</i> <i>To increase the mutual understanding with my colleagues and to get to know better even</i>

responses)	<i>outside the office</i>
	<i>I hope to be helped and supported by colleagues and trainers</i>
<b>Personal growth</b>	<i>I would like to develop by becoming more self-aware</i>
(17% of total responses)	<i>To gain more control and management of my emotions in tough situations</i>
	<i>To better understand my limits and resources in order to grow as a person</i>
<b>Influence increase</b>	<i>To learn how to better influence my boss also as tips to understand how to influence my</i>
(9% of total responses)	<i>potential future reports in the next years</i>
	<i>To get more tools to convince my team members in front of conflicts or tough decisions</i>
	<i>To get a confirmation of my leadership and persuasion skills</i>

---

*Job-satisfaction.* We used one item taken from the single-item research around satisfaction at work (Fisher, et al. 2016 Fisher, Matthews, & Gibbons, 2016). Although we were aware of the risks of using a single item scale (Gardner, Cummings, Dunham, & Pierce, 1998; Loo, 2002 Schriesheim, Hinkin, & M. Podsakoff, 1991), we preferred to use this solution in order to reduce the response time for respondents (Fu, 2005) and increase the overall response rate in the longitudinal study (Rogelberg & Stanton, 2007). The item “Overall, I am satisfied with my job” was chosen from the work of Fisher and colleagues (2016) as it showed the highest estimates of internal consistency and test-retest stability over time (Fisher et al., 2016). The response scale ranged from 1 (completely disagree) to 6 (completely agree). The test-retest reproducibility using the intra-class correlation coefficient (ICC) was 0.70, with a 95% confidence interval ranging from 0.61 to 0.77.

*Occupational self-efficacy.* Similarly to job satisfaction, we chose one item about self-efficacy at work, to have a fast and overall measure of the feeling of capacity in one’s role within the work context. Single-item measures of self-efficacy have been previously used to measure the perception of mastery in specific domains, like teaching, memory, health (Gwaltney, Metrik, Kahler, & Shiffman, 2009; Hoepfner, Kelly, Urbanoski, & Slaymaker, 2011; Rebok & Balcerak, 1989; Tschannen-Moran & Hoy, 2007). Aware of the same limits identified above, we chose one item from the short version of the Occupational Self-efficacy Scale (Rigotti, Schyns, & Mohr, 2008) “I feel prepared for most of the

demands in my job” as it guaranteed us the suitability for either managerial or professional roles in our samples. The response scale ranged from 1 (completely disagree) to 6 (completely agree). The intra-class correlation coefficient (ICC) for this item was .60, with a 95% confidence interval ranging from 0.42 to 0.70.

### *3.3.4 Data Analysis*

In order to control for age, gender, organizational tenure, organizational belonging, and intervention cohort, we ran preliminary analyses to make sure that there were no significant differences between groups and none of the control variables were significantly related to learning outcomes. Once this was ascertained, such variables were excluded from the analyses.

For the exploratory approach of this study, given the nature of hypotheses, and for the small sample size at hand, we mainly used multiple and hierarchical regression analyses in order to observe the contribution of the different variable or sets of variables in predicting significant proportions of variance, together or in addition to the previously entered ones.

Hypotheses 1 a) and b) were tested through hierarchical regression, by entering three different sets of variables, referring to individual, training and organizational factors, in the model. The order in which the variables were entered followed the logical sequence of appearance in the training situation: individual-related variables, such as occupational self-efficacy prior to the training and participants' expectations, were entered at stage 1 (model 1), and organizational variables, such as affective investment and job satisfaction were entered at stage 2 (model 2), as both conceptually pre-existing to the training; training-related variables, such as clinical process consultation and target participants were entered at stage 3 (model 3), as subsequent either to individual or organizational perceptions.

Dependent variables were Q4TE scores for short and long term learning training outcomes.

Hypotheses 2 a) and b) were tested by performing analyses with pre-post values in affective investment overall score and subscales scores (delta values). Linear multiple regression was used to verify if an increase in affective investment, or in one of its symbolic motives, could determine an

increase in short or long-term outcomes, controlling for other individual (pre-training occupational self-efficacy, expectancies towards training), training (clinical process consultation, target participants) or organizational variables (job satisfaction).

Hypotheses 3 a), b) and c) were tested by running moderation analyses using the SPSS Process macro by Hayes (2016). In particular, we examined moderation effects of target participants on long term outcomes (namely learning transfer), separately for affective investment and related symbolic motives delta, clinical process consultation, and expectations towards training, with the aim to determine whether being a manager or a professional in training could predict higher scores in learning transfer outcomes.

Missing data were treated using a listwise method.

### 3.4 Results

In Table 3.3 descriptive characteristics of used measures are reported which showed no severe violation of the normality.

Table 3.3. *Descriptive Statistics of the Study Variables of the Sample*

	Measure	M	SD	Skewness	Kurtosis
Pre training variables	Affective Investment	51.93	8.15	-.01	-.12
	Achievement symbolic motive	13.74	2.38	-.40	-.17
	Affiliation symbolic motive	13.21	2.54	.12	-.42
	Power symbolic motive	12.49	2.98	-.48	.26
	Autonomy symbolic motive	12.53	2.83	-.25	.26
	Job Satisfaction	4.41	.97	-.21	-.43
	Occupational self-efficacy	4.34	.95	-.25	-.23
Post training variables	Affective Investment	52.24	7.42	-.08	-.24
	Achievement symbolic motive	13.56	2.45	-.66	.29
	Affiliation symbolic motive	13.30	2.45	-.35	-.12

Power symbolic motive	12.36	2.61	-.33	.14
Autonomy symbolic motive	13.08	2.46	-.02	-.32
Short term outcomes	49.21	6.96	-1.12	1.97
Long term outcomes	42.44	9.81	-1.1	1.70

---

Prior to conducting a hierarchical multiple regression, we tested the fundamental assumptions.

A sample size of 137 was deemed adequate given the number of predictors to be included in the regression analyses (Tabachnick & Fidell, 2006).

An examination of correlations revealed that some of the independent variables were highly correlated. In particular, positive correlations were found among pre-training job satisfaction, occupational self-efficacy and affective investment; negative correlations were found between dummy variables of skill development expectations, relatedness expectations and target participants (Table 3.4). High positive correlation between long and short term outcomes was expected and in line with the validation results. The same is true for affective investment and related symbolic motives subscales (composing the overall affective investment scale).

In the light of these results, for any regression analyses, both Tolerance and VIF statistics were run. As they always resulted within acceptable limits (all below 3), the assumption of multicollinearity was considered to have been met.



Table 3.4. Correlations Among All Predictor And Dependent Variables (Pearson's R)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Pre-training Affective Investment	-															
2. Pre-training Job Satisfaction	.54**	-														
3. Clinical process consultation	-.11	-.10	-													
4. Target participants <sup>a</sup>	-.38**	-.30**	.27**	-												
5. Skill development expectations <sup>b</sup>	.13	.09	.02	.23*	-											
6. Relatedness expectations <sup>b</sup>	.15	.12	-.22*	-.56**	-.50**	-										
7. Influence increase expectations <sup>b</sup>	-.28**	-.15	.35**	.16	-.27**	-.25*	-									
8. Personal growth expectations <sup>b</sup>	-.10	-.11	-.05	.25*	-.38**	-.36**	-.19	-								
9. Pre-training occupational self-efficacy	.46**	.38**	.11	-.14	.28**	.02	-.05	-.31**	-							
10. Δ Affective Investment	-.61**	-.35**	.04	.19	-.08	-.04	.08	.08	-.34**	-						
11. Δ Achievement symbolic motive	-.46**	-.30**	-.03	.21*	-.09	-.01	.00	.11	-.36**	.75**	-					
12. Δ Affiliation symbolic motive	-.48**	-.32**	.18	.11	-.03	-.06	.12	.01	-.34**	.82**	.47**	-				
13. Δ Power symbolic motive	-.41**	-.17	.12	.16	-.12	.052	.00	.08	-.09	.70**	.33**	.49**	-			
14. Δ Autonomy symbolic motive	-.53**	-.29**	-.12	.13	-.02	-.09	.10	.05	-.25*	.81**	.54**	.57**	.38**	-		
15. Short term outcomes	.01	.13	.23*	.19	.09	-.12	.05	-.01	-.02	.22*	.12	.23*	.19	.14	-	
16. Long term outcomes	.19	.16	.08	.12	.24*	-.10	.00	-.16	.02	.11	.00	.13	.13	.09	.79**	-

\*p &lt; .05. \*\*p &lt; .01.

<sup>a</sup>: Target participants was coded as 0 (professional) and 1 (managerial)<sup>b</sup>: Dummy variable coded as 0 (absence) and 1 (presence) of the skill development, relatedness or influence increase expectations towards training.

We tested and partially verified hypothesis 1a) (short term outcomes) through a three stage hierarchical multiple regression with short term outcomes as the dependent variable. Individual variables, like occupational self-efficacy and expectations towards training were added at stage 1, pre-training job-satisfaction and affective investment were entered at stage 2, and training-related variables – namely clinical process consultation and target participants - were entered at stage 3.

The hierarchical multiple regression revealed that, at stage 1, none of the considered variables contributed to explain the short term outcome variance. Introducing the organization-related variables at stage 2 did not explain any variance yet. Entering training-related variables at stage 3 eventually led to a significant change in  $R^2$  ( $F(2,89) = 4.80, p < .01$ ). In model 3, short term outcomes were predicted solely by clinical process consultation ( $\beta = .22, p < .05$ ;  $F(8,89) = 1.93, p < .05$ ), in spite of several other organizational and individual predictors (Table 3.5).

Overall, the set of variables in model 3 accounted for 15.0% of the variance in short term outcomes.

Table 3.5. *Summary of Hierarchical Regression Analyses for Predicting Short Term Outcomes By Individual Variables (Model 1), Organizational Variables (Model 2), Training-related variables (Model 3) (Method: Enter)*

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	$\beta$
Skill development expectations <sub>b</sub>	1.06	2.02	.08	1.15	2.01	.08	1.24	1.93	.09
Relatedness expectations <sub>b</sub>	-1.20	1.91	-.09	-1.39	1.91	-.10	.77	2.08	.06
Influence increase expectations <sub>b</sub>	1.17	2.54	.06	2.07	2.60	.10	1.18	2.61	.06
Pre-training occupational self-efficacy	-.03	.74	.00	-.75	.85	-.11	-1.10	.83	-.16

Pre-training affective investment		.09	.10	.11	.15	.10	.20
Pre-training job satisfaction		.84	.81	.13	1.20	.79	.18
Clinical clinical process consultation					1.08	.54	.22
Target participants <sup>a</sup>					3.31	1.75	.25
$R^2$	.02	.05		.15			
$F$ for change in $R^2$	.55	1.54		4.80**			

\* $p < .05$ . \*\* $p < .01$ .

a: Target participants was coded as 0 (professional) and 1 (managerial)

b: Dummy variable coded as 0 (absence) and 1 (presence) of the skill development, relatedness or influence increase expectations towards training. Personal growth was taken out of the model and considered as baseline.

Hypothesis 1b) (long term outcomes or learning transfer) was partially verified by observing a change in the predictors of long term outcomes across three models (Table 3.6). The hierarchical multiple regression revealed that, at stage 1, none of the considered variables contributed to explain long term outcomes variance. Introducing the organizational variables at stage 2 explained an additional 6% of variation in long term outcomes, with a significant change in  $R^2$  ( $F(2,89) = 3.25$ ,  $p < .05$ ). Long term outcomes were predicted by skill development expectations ( $\beta = 0.33$ ,  $p < .05$ ) and affective investment ( $\beta = 0.23$ ,  $p < .05$ ) in model 2 ( $F(6,89) = 2.26$ ,  $p < .05$ ). Model 3 showed a further increase in  $R^2$  ( $F(2,87) = 1.74$ ,  $p < .05$ ), with skill development expectations ( $\beta = 0.34$ ,  $p < .05$ ) and affective investment ( $\beta = 0.30$ ,  $p < .05$ ) being the only significant predictors for long term outcomes. This made us to choose to keep skill development expectations as the sole expectation to be considered in the next analyses.

Table 3.6. *Summary of Hierarchical Regression Analyses for Predicting Long Term Outcomes By Individual Variables (Model 1), Organizational Variables (Model 2), Training-related variables (Model 3) (Method: Enter)*

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	$\beta$
Skill development expectations <sup>b</sup>	6.48	2.87	.32	6.71	2.80	.33	6.84	2.78	.34
Relatedness expectations <sup>b</sup>	1.46	2.76	.07	1.17	2.70	.06	3.67	3.02	.18
Influence increase expectations <sup>b</sup>	3.30	3.60	.11	5.43	3.63	.18	5.54	3.76	.18
Pre-training occupational self-efficacy	-.38	1.07	-.04	-1.93	1.21	-.20	-2.12	1.21	-.21
Pre-training affective investment				.26	.15	.23	.33	.15	.30
Pre-training job satisfaction				1.03	1.14	.11	1.34	1.14	.14
Clinical process consultation							.35	.79	.05
Target participants <sup>a</sup>							4.21	2.52	.22
$R^2$	.07			.13			.17		
<i>F</i> for change in $R^2$	1.68			3.26*			1.74*		

\* $p < .05$ . \*\* $p < .01$ .

a: Target participants was coded as 0 (professional) and 1 (managerial)

b: Dummy variable coded as 0 (absence) and 1 (presence) of the skill development, relatedness or influence increase expectations towards training. Personal growth was taken out of the model and considered as baseline.

Through hypothesis 2, we aimed at observing if a difference between affective investment prior to and after the training (delta) could influence learning outcomes.

Hypothesis 2 a) was partially verified as no predictive effect was found for increase of affective investment on long term learning outcomes ( $F(6,87) = 2.20, p > .05$ ). However, an increase in affective investment positively predicted short term outcomes ( $\beta = .28, p < .01$ ) in a model including all the other predictors previously analyzed (clinical process consultation, target participants, skill development expectations, occupational self-efficacy, job satisfaction prior to the training). Pre-training job satisfaction ( $\beta = .31, p < .01$ ) and clinical process consultation ( $\beta = .22, p$

< .05) showed added explanatory power to the model, which overall explained 19% of short term outcome variance (Table 3.7).

Table 3.7. *Summary of Multiple Regression Analyses for Predicting Short Term Outcomes By Increase in Affective Investment (Delta), Beyond Clinical process consultation, Participants' Expectancies, pre-training Self-efficacy and Job Satisfaction (Method: Enter)*

Variable	<i>B</i>	<i>SE</i>	$\beta$
Affective investment Delta	.21	.08	.28**
Clinical process consultation	1.11	.51	.22*
Pre-training job satisfaction	2.03	.73	.31**
Target participants <sup>a</sup>	1.94	1.45	.15
Skill development expectations <sup>b</sup>	.96	1.47	.07
Pre-training occupational self-efficacy	-.39	.78	-.05
<i>R</i> <sup>2</sup>	.19**		
<i>F</i>	3.45		

\* $p < .05$ . \*\* $p < .01$ .

a: Target participants was coded as 0 (professional) and 1 (managerial)

b: Only the dummy variable for skill development expectations was left in the model, coded as 0 (absence) and 1 (presence)

For hypothesis 2b), among the four Work-SMS subscales, only an increase in the achievement symbolic motive ( $\beta = .28$ ,  $p < .01$ ) and in the autonomy symbolic motive ( $\beta = .22$ ,  $p < .05$ ) were found to predict short term learning outcomes, in addition to target participants and job satisfaction for the former, and clinical process consultation and job satisfaction for the latter (Table 3.8 and 3.9).

Table 3.8. *Summary of Multiple Regression Analyses for Predicting Short Term Outcomes By Increase in Achievement symbolic Motive (Delta), Beyond Clinical process consultation, Participants' Expectancies, pre-training Self-efficacy and Job Satisfaction (Method: Enter)*

Variable	<i>B</i>	<i>SE</i>	$\beta$
Achievement symbolic motive Delta	.74	.26	.28**
Clinical process consultation	.92	.58	.17
Pre-training job satisfaction	2.34	.76	.32**
Target participants <sup>a</sup>	3.37	1.50	.23*
Skill development expectations <sup>b</sup>	-.55	1.54	-.04
Pre-training occupational self-efficacy	-.47	.82	-.06
F	4.21		
R <sup>2</sup>	.16**		

\* $p < .05$ . \*\* $p < .01$ .

a: Target participants was coded as 0 (professional) and 1 (managerial)

b: Only the dummy variable for skill development expectations was left in the model, coded as 0 (absence) and 1 (presence)

Table 3.9. *Summary of Multiple Regression Analyses for Predicting Short Term Outcomes By Increase in Autonomy symbolic Motive (Delta), Beyond Clinical process consultation, Participants' Expectancies, Pre-Training Self-efficacy and Job Satisfaction (Method: Enter)*

Variable	<i>B</i>	<i>SE</i>	$\beta$
Autonomy symbolic motive Delta	.53	.25	.22*
Clinical process consultation	1.27	.55	.23*
Pre-training job satisfaction	2.15	.77	.30**
Target participants <sup>a</sup>	2.88	1.54	.20
Skill development expectations <sup>b</sup>	-.48	1.55	-.03
Pre-training occupational self-efficacy	-.49	.834	-.064
F	3.17		
R <sup>2</sup>	.17**		

\* $p < .05$ . \*\* $p < .01$ .

a: Target participants was coded as 0 (professional) and 1 (managerial)

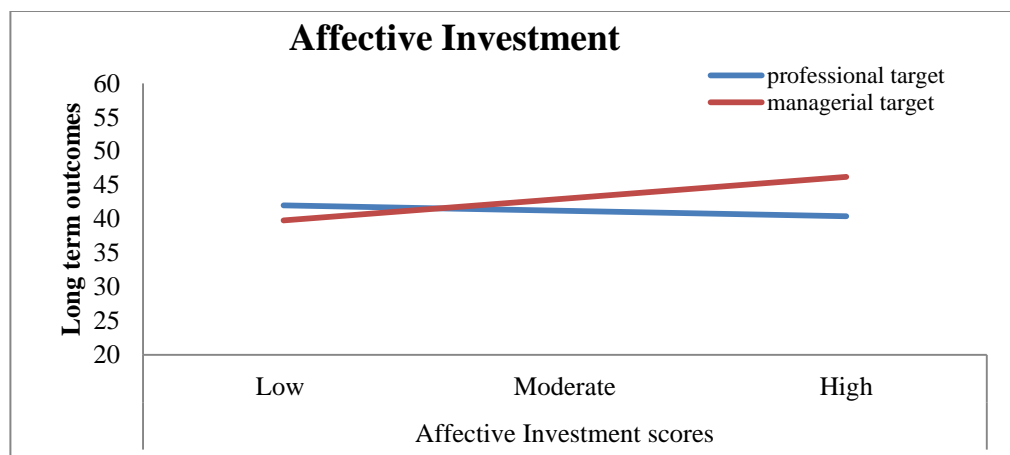
b: Only the dummy variable for skill development expectations was left in the model, coded as 0 (absence) and 1 (presence)

With hypothesis 3 we checked if any moderation effect was present for target participants on any of the predictors taken into consideration so far. We did this as we aimed at detecting if the interaction of some of the considered variables could impact long term outcomes, as a proper measure of learning transfer.

This hypothesis was partially confirmed.

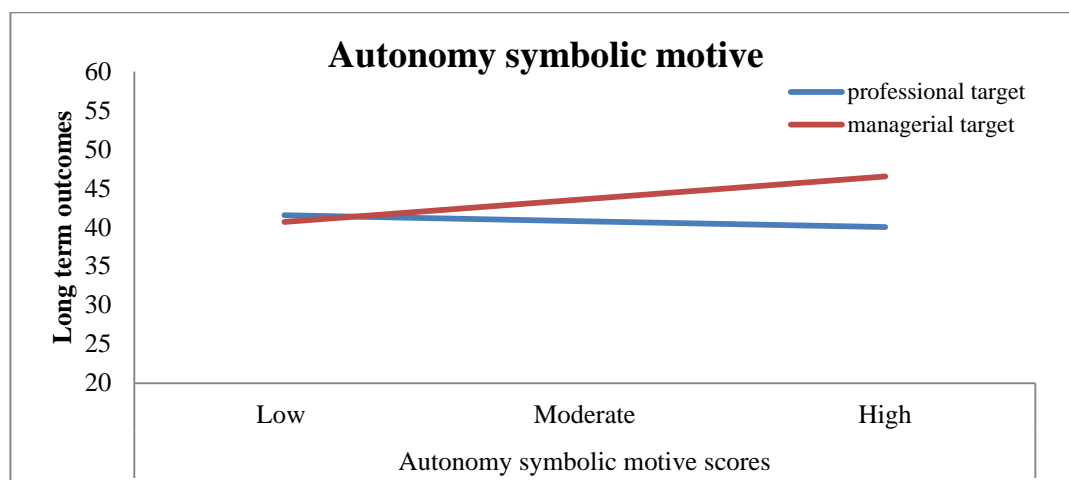
The first interaction observed was between affective investment delta and target participants on long term outcomes. Moderation analyses showed a significant conditional effect of target participants on affective investment delta in predicting long term outcomes ( $B = .48$ ,  $SE = .21$ ,  $t(113) = 2.24$ ,  $p < .05$ ). In particular, as shown in Figure 3.2, an increase in affective investment in a managerial target population positively predicted long term outcomes.

Figure 3.2. *Interaction Plot for Conditional Effect of Target Participants on Affective Investment in Predicting Long Term Learning Outcomes*



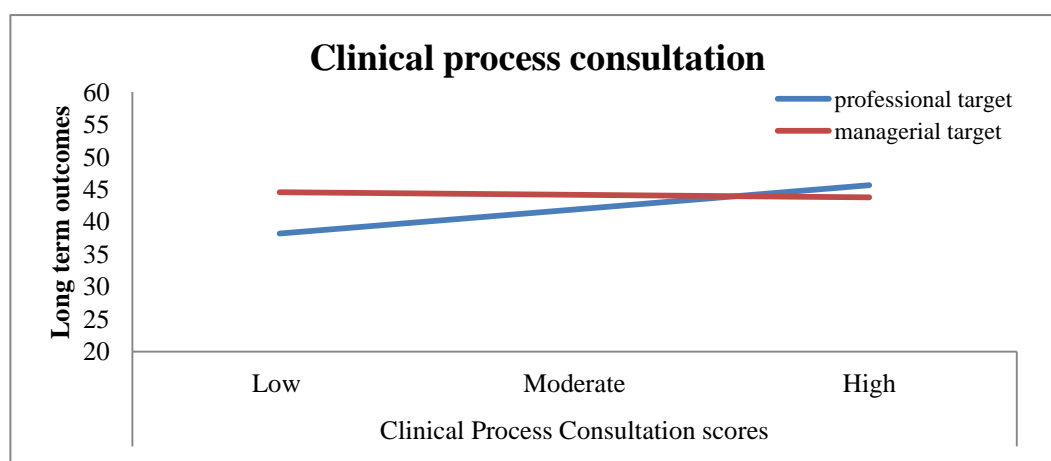
Among the four symbolic motive scales, only an increase in autonomy seemed to be significantly moderated by target participants. Indeed, an increase in autonomy could positively predict higher scores in long term outcomes in a managerial population ( $B = 1.27$ ,  $SE = .61$ ,  $t(118) = 2.05$ ,  $p < .05$ ) (Figure 3.3)

Figure 3. *Interaction Plot for Conditional Effect of Target Participants on Autonomy Symbolic Motive in Predicting Long Term Learning Outcomes*



Next, the interaction term between target participants and clinical process consultation was explored. Although not reaching the significance threshold of  $p < .05$ , we decided to report the results of the moderation effect of target participants on long term outcomes, as this model reached a  $p < .06$  ( $B = -3.25$ ,  $SE = 1.71$ ,  $t(123) = 1.90$ ,  $p < .06$ ). The examination of the interaction plot (Figure 3.4) showed an effect only of professional targets on long term scores, which were significantly increased by clinical process consultation.

Figure 3.4. *Interaction Plot for Conditional Effect of Target Participants on Clinical Process Consultation in Predicting Long Term Learning Outcomes*





Eventually, we tested the conditional effect of target participants on skill development expectations for long term outcomes, which did not show any significant interaction ( $B = 3.03$ ,  $SE=4.35$ ,  $t(100) = .70$ ,  $p > .48$ ).

### **3.5 General Discussion**

Through this work we wanted to explore the role of, so far relatively unexplored, factors of effectiveness of interpersonal skills training. These factors are affective investment and affective symbolic motives (Carli & Panaccia, 2004; Salvatore et al., 2003), clinical process consultation (Carli & Panaccia, 1999; Schein, 1993) and participants' expectations towards the training. The main aim was to shed light on the symbolic and representational processes going on within the organizational contexts in which training took place, within the consultant-client relationship and within participants' anticipations of training and its outcomes.

These three dimensions were measured prior to the training through a newly validated scale – the Work Symbolic Motive Scale (Work-SMS), a clinical process consultation checklist, and an open ended question about training expectations.

The Work SMS (see chapter 1) is an adjectival scale composed of 12 adjectives referring to the achievement, affiliation, power and autonomy dimensions which highlight the main affective symbolizations of the work context, all encompassed in a general measure of affective investment. The scale was administered before and 6-8 weeks after, the training.

The clinical process consultation checklist was specifically created for this study, and aimed at observing the consultancy process prior to training, and measured the extent to which the client's demands were analyzed and reformulated, training needs were explored, training design was context-based and customized, and observation results were then shared with recipients and clients.

The open-ended question about expectations towards training (“What do you expect from this training?”) and its answers were collected before the training and then coded through four different labels, referring to skill development, relatedness, personal growth and influence increase goals.

The learning outcomes were measured with a 12-item self-report scale, namely Questionnaire for Professional Training Evaluation (Grohmann & Kauffeld, 2013), which measured the impacts of training at six different levels (satisfaction, utility, knowledge and application, individual results and global organizational results) grouped in short and long term learning outcomes. This scale was administered 6-8 weeks after the training.

All the tools used in this study showed reliability properties from acceptable to excellent.

Partnering with an international training and development firm, we involved 137 subjects in a field longitudinal study, across seven different organizational contexts, consistently with a call for an inter-organizational training interventions evaluation (Baldwin et al., 2009; Goldstein & Ford, 2002). Ten similar interpersonal skills interventions were identified which could be suitable for studying the observed variables, and which were similar in the methodology used, trainers’ style and content, but differed in target population. For the managerial target population, the training focused more on the development of interpersonal skills with managed teams and collaborators; for the professional target population the focus was more on developing interpersonal skills with peer colleagues and team members.

The approach of each training intervention was highly experiential (Kolb, 1984; Kolb et al., 2001) and included simulations, reflection sessions, sharing of theoretical models, best practices and feedback among peers.

Through three hypotheses we verified the role of our three main predictors on different learning outcomes, controlling for other, more traditional and well-known variables, such as job satisfaction, occupational self-efficacy and target population involved in training (managerial or professional).

Our first hypothesis was that pre-training affective investment, clinical process consultation and participants' expectations prior to training could predict learning transfer, either for short and long term outcomes (H1a and H1b), beyond other variables such as job satisfaction, occupational self-efficacy and target population.

Using a hierarchical multiple regression model, we partially verified these hypotheses. On the one hand clinical process consultation was the only significant predictor for short term learning outcomes, in a model explaining the 15% of overall variance and including all the previously cited predictors. Pre-training affective investment and participants' skill development expectations, on the other hand, were the only two predictors significantly associated to long term transfer, explaining up to 17% of variance. These results, which were partially inconsistent with our hypotheses, were interpretable with a conception of interpersonal skill training as an "episode" (Salas & Cannon-Bowers, 2001) within a much wider organizational life, led by the trainees. Learning can be appreciated and deemed useful by trainees, however, it stays an episodic event embedded in more complex and dynamic environment which is only partially modifiable through temporary training interventions. If well consulted and designed, interpersonal skills training can provide deeper awareness and knowledge and be perceived as satisfying and useful (short term outcomes), no matter how satisfying the rest of the organization is. However, in order to produce global organizational results such as improved performance, better climate and productivity at work (long term outcomes), affects towards the overall organization and personal expectations come into play. This shows that from an organizational point of view, the affective investment towards one's work context (i.e. feeling that the work context is endowed with good qualities) is something that sustains the performance and the training effectiveness in the long run; it should therefore be monitored carefully, in integration with other climate and cultural dimensions. On the other side, individual skill development expectations towards training showed to predict long term outcomes, which is consistent with what already known about goal orientation and achievement motivation (Dan &

Amanuel, 2005; Laine & Gegenfurtner, 2013). Nevertheless, this can also be explained by the fact that the here-analyzed skill development expectations implied a context-oriented improvement of skills through self-implication, which was particularly coherent with what the training eventually worked on, increasing the productivity of interpersonal relationships at work (Carli & Giovagnoli, 2011).

The second hypothesis was that an increase in affective investment, or in one of its four subscales, could influence learning outcomes (short or long term). Although an increase in such dimensions was not a specific objective of the interpersonal skills training observed, we aimed to discover if an enhancement of a particular affective symbolization could also enhance the training effectiveness, in turn.

Results highlighted that when affective investment, and in particular achievement and autonomy symbolic motives, increase after the training, this does positively influence learning outcomes, and in particular short term ones (referring more to the individual subjective perception of learning usefulness), more than long term ones (referring to wider individual-organization interaction). Whereas clinical process consultation, target participants and job satisfaction kept playing a significant predicting role. These results seem to tell us that, in addition to other organizational and training-related factors, leveraging on these affective symbolizations can be useful for the training appreciation (short term outcomes). In particular, we can interpret this result by supposing that an enhancement of the context symbolic generative function (achievement symbolic motive) can lead to a better regard towards the training (i.e. the more I feel my work context – and my role in it - to be generative and productive, the more I will feel that the training has been useful and enriching). For the autonomy symbolic motive, a similar process may be involved, with an increase in ownership and responsibility leading to a stronger valuing of training (i.e. the more I feel my work context is capable of autonomy and self-determination, the more I appreciate the training). Indeed, if participants increase the feeling to work in a context which is

capable to generate solutions and be owner of its destiny, this may lead to fully appreciate the meaning and the usefulness of training (short term outcomes) (i.e. by reflecting on the resources available within the organization, uncovering dysfunctional dynamics of the productivity potential, taking more ownership about one's role or team effectiveness). In other words, *positive affective reactions* (Kirkpatrick & Kirkpatrick, 2007) towards training short-term outcomes can be amplified thanks to an increase in the *positive affective representation* of the work context. However, these increases in perceiving one's work context as worth working for, and capable of achievement and autonomy, do not determine long term change in performance and organizational outcomes. Indeed, in order to increase individual and organizational condition and performance after training (long term outcomes), many other factors and conditions may be required.

With hypothesis 3, in order to better focus the consultancy and training-related predictors which, if well managed, could increase long term training outcomes, and therefore learning transfer, we investigated if any moderation relationships existed among the observed variables. In particular we looked at target participants (professional vs. managerial role targets) to gain information about the conditions to at which long term outcomes could be predicted. According to previous works on learning transfer (Baldwin et al., 2009) participants' role could play a part in it, as influenced by wider organizational conditions (i.e. expectations, level of autonomy, opportunity to practice) and influencing them, in turn (i.e. commitment, ownership, desires and ambitions).

The results, again, partially verified our hypothesis. Managerial target population was actually found to positively moderate the relationship between the increase in affective investment and long-term learning outcomes. When an increase in affective investment, and in particular in the autonomy symbolic motive, happened in a managerial target population, this was highly likely to predict long term outcomes. This was not true for a professional target population, whose long term outcomes scores remained substantially the same. We deem that a solicitation of affective investment and autonomy symbolization in such training recipients can boost the perception of improved

performance and learning transfer. This may be explained, in part, due to the fact that they can be more keen to exert effort on the work contexts (see Chapter 1; Kónya, Matić, & Pavlović, 2016; Thompson, Kopelman, & Schriesheim, 1992). Yet, this could also be due to the fact that training could foster the capability to detect and acknowledge organization positive qualities.

In addition, the target population also moderated the relationship between clinical process consultation and long term outcomes. Although not significant, the interaction plot of the moderation showed that this interaction deserved some attention. Actually, long term outcomes were predictable by deeper clinical process consultation if this happened in a professional target population. Generally, this kind of population deals with less relational responsibilities and decisional risks within the organization (Johnson & Powell, 1994), and therefore may then be considered to be less in need of interpersonal skills training. However, this should not lead to shallower clinical process consultation. Actually, inquiring about the real need at hand and reformulating it, customizing the training and sharing the results with all the stakeholders may yield to long term learning outcomes more in a professional target population than in a managerial one. This may be due to a variety of reasons, among which we may consider the power of well-designed interpersonal training interventions for populations generally less exposed to such type of training. The possibility of this target population to explore new ways of relating with each other with less fears about mistakes and visibility risks within the organizational environment could also explain this result. In general, we can say that the role dimension actually connects the subjective attitude (Ford & Noe, 1987) with the organizational expectations (Biddle, 1986) and with the training objectives definition and design. For this reason it may modulate the influence of other variables on learning transfer.

Eventually, the relationship between participants' skill development expectations and long term transfer was not moderated by the target participants. This may be due to the fact that this dimension, encompassing context-based improvement goals and self-implication attitude, already implies long term commitment, potentially spurred by other indirect factors (i.e. effective

communication about training goals, better expectation setting from managers or organization, etc.). This could sustain the perceptions of stronger long term outcomes, inspite of participants' roles. However, this variable continues to be a strong predictor of long term outcomes, which makes it a factor worth of exploration and management prior to training.

### **3.6 Limitations of the study**

We could list many limitations of this study. The first limit is related to the measures that we used, especially for control variables (job satisfaction and occupational self-efficacy). Being a field study, dealing with real cases, we were particularly careful to balance the response effort for participants. This is why we chose to use single-item measures for control variables which was definitely an extreme solution, adopted in front of the risk of not having any control measure at all. This is not advisable for results validity; thus, further studies may certainly benefit from more solid measures. A validity of measure issue can be raised also for two of the four variables that we observed (clinical process consultation checklist and expectations open-ended question). Although internal reliability indicators resulted in sufficiently consistent values, a more solid validation of such tools is advisable, for the benefit of research and professional aims.

In addition, the measure that we used for learning outcomes (Q4TE, Grohmann & Kauffeld, 2013) was a self-report and observed short and long term outcomes at the same time, which can inflate the correlational relationships and results. This goes against many authors' recommendations about training transfer evaluation, who suggest to use multi-source tools (i.e. Burke & Hutchins, 2008). However, many solid training transfer evaluation tools are based on the same principle (Bates, Holton, & Hatala, 2012) and, thanks to an accurate validation process and to anonymity guarantee to respondents, we managed to minimize risks related to inflated results.

In terms of sample size, although the longitudinal design helped increase the study power, our number of subjects was small and this conditioned the number of analyses and explorations that

could be feasible. Consequently, the role of some of the variables considered could not be disentangled from other related variables. An example of this is the target participants variable. Target participants strongly influenced training content and focus (vertical interpersonal relationships vs. horizontal ones) and these two variables keep being strongly intertwined, with no possibility to determine which of these two conditions are enabling long term learning outcomes.

With reference to our sample's background, we must highlight that it was fully composed by an Italian population and this will have certainly influenced the quality of our results. We must underline that this, more than a limit, is an intrinsic feature of these kind of studies: being this research focused on affects and symbolic dimensions, as essentially context-dependent variables, we emphasize that the meanings assumed by our respondents may be very different from the ones we could collect in other cultures (either organizational or national). More than a limit, this seems to us a fundamental assumption to keep in mind when dealing with these dimensions which cannot be separated by the context in which they are created (Valsiner, 2014; Gergen, 1990).

### **3.7 Implication for practice**

Despite the many limitations, thanks to this study we can draw several considerations which can be useful for practice with regard to what better predicts interpersonal training short and long term outcomes, and to what can be done to enhance the effectiveness of this kind of training.

Firstly, we were once again reminded that training and learning transfer do not happen in a vacuum (Bell et al., 2017) and the affective and representational dimensions, like affective investment and symbolic motives, play a role in every change process. Indeed, this study helps us grasp some training-related dimensions of meaning attribution which act through immediate symbolic equations, guiding individuals and groups' actions and relationships within the organization. We cannot but join the multitude of authors who state that training transfer is the outcome of a series of factors, interacting together in a systemic way (Aguinis & Kraiger, 2009;



Baldwin et al., 2009; Bell et al., 2017). These are – in a way – inextricable from the work context in which they are embedded. In our findings, we gained evidence that training-related factors tend to influence only short term outcomes, while potentially deeper context or individual-related dimensions have impacts in the longer run.

Training managers and consultants should be aware of this differentiation, in order to create enabling organizational environments and systems for learning to be used and applied. Indeed, thanks to the particularly open nature of the skills developed through this kind of training, practitioners can contribute to building or reinforcing adaptive work context representations, supporting the creation of “the symbolic resources available to people to carry out their lives together” (Gergen, 1990; p.33). Actually, when working through interpersonal skills training, the achievement and autonomy symbolic motives seem to be the most productive representations of the organization for learning transfer. Therefore, more than soliciting power or affiliation-related representations, prompting trainees to identify generative and self-determining qualities of their work contexts seems a particularly effective strategy to enhancing interpersonal training appreciation and transfer. Indeed, we know that the cohabitation of the same work context may be improved by the appreciation of its productivity and autonomy capabilities, as indicators of development and growth, beyond the relational dynamics of reassurance or dependency (Bion, 1961; Carli & Panaccia, 1999, 2004). Through a psychodynamic approach that considers emotions as the product of an unconscious and socially shared meaning making process (Fornari, 1979; Matte-Blanco, 1975; Salvatore et al., 2003), symbolic dimensions can be raised, thought and discussed during the training, in order to understand what they can mean for participants. However, their translation into tangible quotidian organizational practices and meanings is a task that necessarily stays in the hands of those involved in the training (i.e. consultants, trainers, participants, training managers, and ultimately organizations). In this regard, we can underline the usefulness of using less cognitive and individualistic measures training evaluation, in favor of measures capable to grasp symbolic

dimensions and make them utterable, observable and therefore *thinkable*, during and after the training.

Another relevant implication of this study is the observation of the effectiveness of some consultancy practices, like clinical process consultation, which have often been neglected by empirical research. For its mainly dialogical and context-embedded nature, this consultancy practice is hard to monitor and measure. However, the list of consultancy behaviors created for this study, when used in our interviews, helped our interviewees to reflect on their professional practice (Schon, 1983) and become more aware of what they could have done differently to increase the intervention effectiveness. Therefore besides measuring the impact of a similar variable on training short and long term outcomes, this tool can become the starting point for practical guidelines which help to understand to what side of the expert-clinical continuum the consultancy is. This seems even more valid when the target population is a professional one, which provides training practitioners with some attention areas to monitor when leading such a consultancy for this kind of target recipients.

Interesting is the role of participants' expectations, which, albeit being collected by individual sources, may be considered at the crossroad of different factors (i.e. personal goals and drives, managerial practices, organizational communication, cultural representation of training, etc.). The fact that we explored the open-ended responses as they originally were in participants' words, can allow training practitioners to be aware of the discourse around training that gets built prior to it, as many authors have clearly shown that such narratives psychologically generate the training event itself (Bruner, 1991; Gergen, 2009; Montesarchio & Venuleo, 2009). Qualitative and inquiry methods have started to be used in training outcome evaluation (Brinkerhoff, 2006; Yelon et al., 2014). We followed this path, considering that the trainees' free responses about training expectations are easily observable and therefore interpretable through the here-found categories. Although we are aware that a deeper inquiry through narrative approaches could shed light on the – conscious and unconscious - meanings and representations ascribed to the organization and to

change within it, this first attempt provides an easy and fast way to obtain qualitative clues of such representations. By influencing the expectations factor and potentially adjusting it towards more realistic, context-based and self-implicating anticipations, it is possible to enrich the narratives of training expected outcomes, therefore increasing the potential for long term transfer.

#### **4. Conclusions from a clinical point of view**

Concluding, we would like to underline how the factors here observed belong to a set of dimensions that rarely get attention, in favor of more well-known but also less innovative predictors of training transfer (i.e. motivation to learn, managers' support, job-relevant training content, etc.). This tendency, albeit understandable and useful to a certain extent, risks to dwell on common sense-based conceptions of “what works” in training and learning, eluding more risky but nonetheless wider interpretative models for change and intervention within the organization (Salvatore et al., 2003; Valsiner, 2014). Our proposal is that, particularly for interventions dealing with interpersonal skills improvement, psychodynamic and clinical approaches offer the possibility to give room to an innovative interpretation of affective, symbolic and relational factors, happening before and during the training consultation, as phenomena which are interpersonal in nature (Carli & Panicia, 1999).

Indeed, during the training consultancy phase, positioning on the expert/technical polarity or on the clinical one can implicitly set specific ways of interaction with the others (i.e. clients, participants, commissioners). Symbolically, the expert/technical position may convey untold indications for compliance and delegation of decision and thus emotions of relief, but also obligation and dependency (Schein, 1999); while the clinical position may solicit anxiety and irritation, but also prompt courage, responsibility and commitment.

Then, during the training delivery, the “expert” provision of new contents more than a collective critical revision of action can unconsciously convey symbolic associations which orientate participants' interpretations and understanding of their relational world (i.e. compliance to authority vs. critical reflection with the other). Several emotional and interpersonal dynamics can stem from this (i.e. identification, rejection, dependency, counter-dependency, conflict or affiliation; Bion, 1961) which, if observed, can be discussed and analyzed within the training itself, as first-hand observation of the emotional complexity of the relational experience.

Eventually, before and after the training, the everyday work reality of participants can be

considered through a psychosocial and psychodynamic lens, besides other sociological, organizational and management frameworks. The training context can indeed become a shared setting in which to understand what the participants' organizational realities emotionally mean to them (i.e. sources of mastery and competence, affiliation and relatedness, power and influence over others, autonomy and independence, etc.), assuming that such specific meanings build the local cultures that, eventually, govern the interpersonal dynamics which the training aims at improving (Carli & Paniccchia, 1999, 2004). Again, giving attention to these symbolic representations can add value to the training experience, aiming at developing more adaptive categories and keys to act and interact in the organizational world.

A final remark concerning the process of training impacts evaluation should be made: evaluating the outcomes of an interpersonal skills training can be a powerful reflective practice (Child, 2015), nurturing curiosity and feedback, shedding light on the factors that enable or hinder change and thus producing value to all the stakeholders involved. The evaluation of the impacts of training, in our view, should be conceived here as an “attitude” (Carli and Paniccchia, 2004, p.214) prompting, at every stage of a training intervention, to validate the effectiveness of the work done. This work, also thanks to relatively easy-to-use tools, aimed also at encouraging training practitioners to pursue such an attitude, as a fundamental psychological function of goal definition and reality checking.

Within a perspective that sees clinical psychology as an intervention science (Carli, 2006b), in this work we have proposed to reconcile intervention domains which have often been separated. Psychodynamic and clinical psychology, besides more therapeutic settings, can join social, interactionist and organizational psychology in the study of the organizational life and in support of change and development interventions. The aim is to add explanatory power to the understanding of the organization, as one of the most complex facets of human relationships.

## References

- Aarts, H., Custers, R., & Marien, H. (2008). Preparing and motivating behavior outside of awareness. *Science*, 319(5870), 1639-1639. doi:10.1126/science.1150432
- Aguinis, H., & Kraiger, K. (2009). Benefits of Training and Development for Individuals and Teams, Organizations, and Society. *Annual Review of Psychology*, 60(1), 451-474. doi:10.1146/annurev.psych.60.110707.163505
- Akaike, H. (1987). Factor analysis and the AIC. *Psychometrika*, 52( ), 317-332. doi: 10.1007/BF02294359
- Alliger, G. M., Tannenbaum, S. I., Bennett, W., Traver, H., & Shotland, A. (1997). A meta-analysis of the relations among training criteria. *Personnel psychology*, 50(2), 341-358. doi:10.1111/j.1744-6570.1997.tb00911.x
- Alvarez, K., Salas, E., & Garofano, C. M. (2004). An integrated model of training evaluation and effectiveness. *Human resource development Review*, 3(4), 385-416. doi:10.1177/1534484304270820
- Alvelos, R., Ferreira, A. I., & Bates, R. (2015). The mediating role of social support in the evaluation of training effectiveness. *European Journal of Training & Development*, 39(6), 484. doi:10.1108/EJTD-12-2014-0081
- Andrews, D., Nonnecke, B., & Preece, J. (2003). Electronic survey methodology: A case study in reaching hard-to-involve Internet users. *International journal of human-computer interaction*, 16(2), 185-210. doi:10.1207/S15327590IJHC1602\_04
- Argentin, G., Pennisi, A., Vidoni, D., Abbiati, G., & Caputo, A. (2014). Trying to raise (low) math achievement and to promote (rigorous) policy evaluation in Italy: Evidence from a large-scale randomized trial. *Evaluation review*, 38(2), 99-132. doi:10.1177/0193841X14529125
- Argyris, C. (1991). Teaching smart people how to learn. *Harvard business review*, 69(3), 99-109.

doi:10.1225/91301

Argyris, C., & Schön, D. A. (1997). Organizational learning: A theory of action perspective.

*Reis*(77/78), 345-348. doi:10.2307/40183951

Arthur , W., Bennett , W., Edens, P. S., & Bell, S. T. (2003). Effectiveness of training in organizations: a meta-analysis of design and evaluation features. *Journal of Applied Psychology*, 2(88), 234-245. doi:10.1037/0021-9010.88.2.234

ASTD (Producer). (2009). The value of evaluation: Making training evaluations more effective. Executive Summary. Retrieved from [http://files.astd.org/Research/Whitepapers-Executive\\_Summaries/ValueofEvaluationExecutiveSummary.pdf?\\_ga=2.58461418.1925724269.1502185398-1035391008.1500200696](http://files.astd.org/Research/Whitepapers-Executive_Summaries/ValueofEvaluationExecutiveSummary.pdf?_ga=2.58461418.1925724269.1502185398-1035391008.1500200696)

Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel psychology*, 41(1), 63-105. doi:10.1111/j.1744-6570.1988.tb00632.x

Baldwin, T. T., Ford, J. K., & Blume, B. D. (2009). Transfer of training 1988–2008: an updated review and agenda for future research. *International review of industrial and organizational psychology*, 24(1), 41-70. doi:10.1002/9780470745267.ch2

Barnette, J. J. (2000). Effects of stem and Likert response option reversals on survey internal consistency: If you feel the need, there is a better alternative to using those negatively worded stems. *Educational and Psychological Measurement*, 60(3), 361-370. doi:10.1177/00131640021970592

Bates, R. (2004). A critical analysis of evaluation practice: the Kirkpatrick model and the principle of beneficence. *Evaluation and program planning*, 27(3), 341-347. doi:10.1016/j.evalprogplan.2004.04.011

Bates, R. A. (1997). *The Impact of Training Content Validity, Organizational Commitment, Learning, Performance Utility, and Transfer Climate on Transfer of Training in an Industrial Setting*. LSU Historical Dissertations and Theses. 6382.

- Bates, R., Holton, E. F., & Hatala, J. P. (2012). A revised learning transfer system inventory: factorial replication and validation. *Human Resource Development International*, 15(5), 549-569. doi:10.1080/13678868.2012.726872
- Battisti, N., Dolcetti, F. R., Nutricato, M., Betti, F., & Propersi, G. (2016). *Emotional Text Analysis (ETA) as contribution to the construction of an audience development questionnaire: a cultural festival case study*. Paper presented at 13ème Journées internationales d'Analyse statistique des Données Textuelles
- Bedwell, W. L., Fiore, S. M., & Salas, E. (2014). Developing the future workforce: An approach for integrating interpersonal skills into the MBA classroom. *Academy of Management Learning & Education*, 13(2), 171-186. doi:10.5465/amle.2011.0138
- Bell, B. S., Tannenbaum, S. I., Ford, J. K., Noe, R. A., & Kraiger, K. (2017). 100 years of training and development research: What we know and where we should go. *Journal of Applied Psychology*, 102(3), 305-323. doi: 10.1037/apl0000142
- Bendell, J., S., N., & Little, R. (2017). Beyond unsustainable leadership: critical social theory for sustainable leadership. *Sustainability Accounting, Management and Policy Journal*, 8(4), 418-444. doi:10.1108/SAMPJ-08-2016-0048
- Bennett Jr, W. R., & Arthur Jr, W. (2001). *Factors that influence the effectiveness of training in organizations: a review and meta-analysis*. Human Effectiveness Directorate Mesa Az Warfighter Training Research Div. Retrieved from: <http://www.dtic.mil/get-tr-doc/pdf?AD=ADA400515> (August 2017)
- Biddle, B. J. (1986). Recent developments in role theory. *Annual review of sociology*, 12(1), 67-92. doi:10.1146/annurev.soc.12.1.67
- Bion, W. R. (1961). *Experiences in groups and other papers*. London: Tavistock/Routledge.
- Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. L. (2010). Transfer of training: A meta-analytic review. *Journal of Management*, 36(4), 1065-1105. doi:10.1177/0149206309352880



- Bocciardi, F., Caputo, A., Fregonese, C., Langher, V., & Sartori, R. (2017). Career adaptability as a strategic competence for career development: An exploratory study of its key predictors. *European Journal of Training and Development*, 41(1), 67-82. doi:10.1108/EJTD-07-2016-0049
- Bradbury, H., & Reason, P. (2006). Conclusion: Broadening the bandwidth of validity: Issues and choice-points for improving the quality of action research. *Handbook of action research*, 343-351.
- Brinkerhoff, R. O. (2006). *Telling training's story : evaluation made simple, credible, and effective*: San Francisco, CA.
- Brinkerhoff, R. O., & Montesino, M. U. (1995). Partnerships for training transfer: Lessons from a corporate study. *Human Resource Development Quarterly*, 6(3), 263-274.  
doi:10.1002/hrdq.3920060305
- Broeck, A., Vansteenkiste, M., Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-related Basic Need Satisfaction scale. *Journal of Occupational and Organizational Psychology*, 83(4), 981-1002. doi:10.1348/096317909X481382
- Bruner, J. (1991). The narrative construction of reality. *Critical inquiry*, 18(1), 1-21. doi:  
doi/abs/10.1086/448619?journalCode=ci
- Bulut, C., & Culha, O. (2010). The effects of organizational training on organizational commitment. *International Journal of Training and Development*, 14(4), 309-322. doi:10.1111/j.1468-2419.2010.00360.x
- Burke, L. A., & Hutchins, H. M. (2008). A study of best practices in training transfer and proposed model of transfer. *Human Resource Development Quarterly*, 19(2), 107-128.  
doi:10.1002/hrdq.1230

- Çakmak-Otluoğlu, K. Ö. (2012). Protean and boundaryless career attitudes and organizational commitment: The effects of perceived supervisor support. *Journal of Vocational Behavior*, 80(3), 638-646. doi: 10.1016/j.jvb.2012.03.001
- Cangur, S., & Ercan, I. (2015). Comparison of Model Fit Indices Used in Structural Equation Modeling Under Multivariate Normality. *Journal of Modern Applied Statistical Methods* 14(1), 14. doi:10.22237/jmasm/1430453580
- Caputo, A. (2015). The local culture as a means to explore the processes of social coexistence: A case study on a neighborhood in the city of Rome. *Community Psychology in Global Perspective*, 1(2), 22-39.
- Caputo, A., & Langher, V. (2015). Validation of the collaboration and support for inclusive teaching scale in special education teachers. *Journal of Psychoeducational Assessment*, 33(3), 210-222. doi:10.1177/0734282914548335
- Carli, R. (1987). *Psicologia clinica: introduzione alla teoria ed alla tecnica*. [Clinical Psychology: Introduction to the Theory and Technique]. Torino: UTET Libr.
- Carli, R. (1995). Il rapporto individuo/contesto. [The individual-context relationship]. *Psicologia clinica*(2).
- Carli, R. (2006a). Collusion and its experimental basis. *Rivista di Psicologia clinica* [Online Journal], 1(2-3). Retrieved from: <http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article/view/279> (March 2016)
- Carli, R. (2006b). Clinical psychology: profession and research. *Rivista di Psicologia Clinica* [Online Journal], (1). Retrieved from: <http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article/download/293/421> (Sept. 2017)
- Carli, R., & Esposito, P. (1971). Contributo sperimentale allo studio della dinamica di gruppo e delle relazioni con l'autorità nella partecipazione cinematografica. [Experimental contribution to

- the study on the group dynamics and on the relationship with authority in cinematographic participation]. *Archivio di psicologia, neurologia, psichiatria*, 22(4), 232-285.
- Carli, R., & Giovagnoli, F. (2011). A cultural approach to clinical psychology: Psychoanalysis and analysis of the demand. *Cultural psychology and psychoanalysis: Pathways to synthesis*, 117-150.
- Carli, R., & Pagano, P. (2008). San Lorenzo: La cultura del quartiere e i rapporti con Psicologia. [San Lorenzo: the culture of a neighborhood and the relationship with the Psychology Faculty]. Roma: Kappa.
- Carli, R., & Panicia, R. M. (1981). *Psicologia delle organizzazioni e delle istituzioni*. [Psychosociology of Organizations and Institutions]. Bologna: Il Mulino.
- Carli, R., & Panicia, R. M. (1999). *Psicologia della formazione*. [Psychology of Training]. Bologna: Il Mulino.
- Carli, R., & Panicia, R. M. (2003). *Analisi della domanda. Teoria e intervento in psicologia clinica*. [Analys of Demand: Theory and Technique in clinical psychology]. Bologna: Il Mulino.
- Carli, R., & Panicia, R. M. (2004). *L'analisi emozionale del testo Uno strumento psicologico per leggere testi e discorsi*. [Emotional Text Analysis: a tool to read texts and discourses]. Milano: Franco Angeli.
- Carli, R., Lancia, F., & Panicia, R. (1986). Implications of field dependence for social psychology. *Field dependence in psychological theory, research and application*, 63, 91.
- Carli, R., Panicia, R. M., Giovagnoli, F., Carbone, A., & Bucci, F. (2016). Emotional textual analysis. In O. U. Press (Ed.), *Handbook of methodological approaches to community-based research: Qualitative, quantitative, and mixed methods* (pp. 111-117).

- Cawsey, T. (1973). *The interaction of motivation and environment in the prediction of performance potential and satisfaction in the life insurance industry in Canada*. Paper presented at the 16th Annual Midwest Academy of Management Conference.
- Chapin, M. (2015). *The Influence of National Culture on Differences in Organizational Culture Values*. University of Calgary.
- Chapman, D. S., & Chapin, M. M. (2014). *A lexical approach to identifying dimensions of organizational culture*. Paper presented at the Academy of Management Proceedings. doi: 10.5465/AMBPP.2014.14816abstract
- Chen, F., Curran, P., J. , Bollen, A. K., Kirby, J., & Paxton, P. (2015). An empirical evaluation of the use of fixed cutoff points in the RMSEA test statistic in structural equation models. *Sociological Methods and Research* 36: 462–494. *Sociological methods & research*, 36(4), 462-494. doi: 10.1177/0049124108314720
- Chia, N. N., & Khoo, E. W. (2010). *Understanding Developmental Readiness*. Retrieved from <https://www.cscollege.gov.sg/Knowledge/Pages/Understanding-Developmental-Readiness.aspx> (July, 2017)
- Chiaburu, D. S., Van Dam, K., & Hutchins, H. M. (2010). Social support in the workplace and training transfer: A longitudinal analysis. *International Journal of Selection and Assessment*, 18(2), 187-200. doi:10.1111/j.1468-2389.2010.00500.x
- Child, C. (2015). *Evaluation as reflective practice*. The dynamics of evaluation. Tavistock Institute. Retrieved from <http://www.tavistock.org/projects/evaluation-as-reflective-practice/> (Sept. 2017)
- Clarke, N. (2006). Emotional intelligence training: A case of caveat emptor. *Human Resource Development Review*, 5(4), 422-441.
- Clemence, A., Doise, W., & Lorenzi-Cioldi, F. (2014). *The quantitative analysis of social representations*: Routledge.

- Clore, G. L., Ortony, A., & Foss, M. A. (1987). The psychological foundations of the affective lexicon. *Journal of personality and social psychology*, 53(4), 751. doi:10.1037/0022-3514.53.4.751
- Coget, J.-F. (2009). Dialogical inquiry: An extension of Schein's clinical inquiry. *The Journal of Applied Behavioral Science*, 45(1), 90-105. doi:10.1177/0021886308328850.
- Cooke, B. (1997). From process consultation to a clinical model of development practice. *Public Administration & Development (1986-1998)*, 17(3), 325-350. doi:10.1002/(SICI)1099-162X(199708)17:3<325::AID-PAD951>3.0.CO;2-M
- Cooke, R. A., & Rousseau, D. M. (1988). Behavioral norms and expectations: A quantitative approach to the assessment of organizational culture. *Group & Organization Studies*, 13(3), 245-273. doi: 10.1177/105960118801300302
- Credé, M., Harms, P., Niehorster, S., & Gaye-Valentine, A. (2012). An evaluation of the consequences of using short measures of the Big Five personality traits. *Journal of personality and social psychology*, 102(4), 874-888. doi:10.1037/a0027403
- Cummings, T. G., & Worley, C. G. (2009). *Organization development and change*: Cengage learning.
- Curran, P. J., & Bauer, D. J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual review of psychology*, 62, 583-619. doi:10.1146/annurev.psych.093008.100356
- Dan, S. C., & Amanuel, G. T. (2005). Individual and contextual influences on multiple dimensions of training effectiveness. *Journal of European Industrial Training*, 29(8), 604-626. doi:10.1108/03090590510627085
- Daniels, K. (2000). Measures of five aspects of affective well-being at work. *Human Relations*, 53(2), 275-294. doi: 10.1177/a010564
- Daniels, K., Boocock, G., Glover, J., Hartley, R., & Holland, J. (2009). An experience sampling

- study of learning, affect, and the demands control support model. *Journal of Applied Psychology*, 94(4), 1003. doi: 10.1037/a0015517
- Daniels, M. A., & Greguras, G. J. (2014). Exploring the nature of power distance implications for micro-and macro-level theories, processes, and outcomes. *Journal of Management*, 40, 1-28.
- De Rijdt, C., Stes, A., Van der Vleuten, C., & Dochy, F. (2013). Influencing variables and moderators of transfer of learning to the workplace within the area of staff development in higher education: research review. *Educational Research Review*, 8, 48-74.  
doi:doi.org/10.1016/j.edurev.2012.05.007
- Deci, E. L., & Ryan, R. M. (2010). *Self-determination*: Wiley Online Library. doi: 10.1002/9780470479216.corpsy0834
- Diamantidis, A. D., & Chatzoglou, P. D. (2014). Employee post-training behaviour and performance: evaluating the results of the training process. *International Journal of Training & Development*, 18(3), 149-170. doi:10.1111/ijtd.12034
- Diener, E., Oishi, S., & Lucas, R. E. (2009). Subjective well-being: The science of happiness and life satisfaction. *Oxford handbook of positive psychology*, 2, 187-194. doi: 10.1093/oxfordhb/9780195187243.013.0017
- Dijksterhuis, A., & Aarts, H. (2010). Goals, attention, and (un)consciousness. *Annual review of psychology*, 61, 467-490. doi: 10.1146/annurev.psych.093008.100445
- Egan, T. M. (2008). The relevance of organizational subculture for motivation to transfer learning. *Human Resource Development Quarterly*, 19(4), 299-322.
- Egan, T. M., Yang, B., & Bartlett, K. R. (2004). The effects of organizational learning culture and job satisfaction on motivation to transfer learning and turnover intention. *Human resource development quarterly*, 15(3), 279-301. doi:10.1002/hrdq.1104
- Eisinga, R., Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *International journal of public health*, 58(4), 637-642.

doi:10.1007/s00038-012-0416-3

Evans, J., & Mathur, A. (2005). The value of on-line surveys. *Internet Research*, *15*(2), 2195-2219

doi:10.1108/10662240510590360

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological methods*, *4*(3), 272. doi: 10.1037/1082-989X.4.3.272

Fanelli, F., Terri, F., Bagnato, S., Pagano, P., Potì, S., Attanasio, S., & Carli, R. (2006). Atypical employment: Cultural Models, criticisms and development lines. *Rivista di Psicologia Clinica* [Online Journal], (1). Retrieved from:

<http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article/view/294/423> (April 2017)

Field, A. (2009). *Discovering statistics using SPSS*: Sage publications.

Fiori, M., Bollmann, G., & Rossier, J. (2015). Exploring the path through which career adaptability increases job satisfaction and lowers job stress: The role of affect. *Journal of Vocational Behavior*, *91*, 113-121. doi:10.1016/j.jvb.2015.08.010

Fischer, R., Ferreira, M. C., Assmar, E. M. L., Redford, P., & Harb, C. (2005). Organizational behaviour across cultures: Theoretical and methodological issues for developing multi-level frameworks involving culture. *International Journal of Cross Cultural Management*, *5*(1), 27-48. doi:10.1177/1470595805050823

Fisher, G. G., Matthews, R. A., & Gibbons, A. M. (2016). Developing and investigating the use of single-item measures in organizational research. *Journal of Occupational Health Psychology*, *21*(1), 3-23. doi:10.1037/a0039139

Ford, J. K., & Noe, R. A. (1987). Self-assessed training needs: the effects of attitudes toward training, managerial level, and function. *Personnel Psychology*, *40*(1), 39-53. doi:10.1111/j.1744-6570.1987.tb02376.x

- Fornari, F. (1977). I processi di simbolizzazione tra mondo interno e mondo esterno. [Symbolization processes: between internal and external world]. *Rivista di psicoanalisi*, 23(1), 44-62.
- Fornari, F. (1979). *I fondamenti di una teoria psicoanalitica del linguaggio*. [Fundamentals of a Psychoanalytical Theory of Language]. Torino: Boringhieri.
- Forsyth, D. R. (2009). *Group dynamics*: Cengage Learning.
- Freeman, W. J. (2000). *How brains make up their minds*: Columbia University Press.
- Freud, S. (1930). 1961. *Civilization and its Discontents*, 64-145. Standard Edition, 21.
- Frijda, N. H. (1988). The laws of emotion. *American psychologist*, 43(5), 349. doi: 10.1037/0003-066X.43.5.349
- Fu, Y.-c. (2005). Measuring personal networks with daily contacts: a single-item survey question and the contact diary. *Social Networks*, 27(3), 169-186. doi: <http://dx.doi.org/10.1016/j.socnet.2005.01.008>
- Gaj, N. (2007). Analysis of the demand: contributing to a unified clinical approach. *Rivista di Psicologia Clinica* [Online Journal], (3). Retrieved from: <http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article/viewFile/47/62> (March 2016)
- Gardner, D. G., Cummings, L. L., Dunham, R. B., & Pierce, J. L. (1998). Single-item versus multiple-item measurement scales: An empirical comparison. *Educational and Psychological Measurement*, 58(6), 898-915. doi:10.1177/0013164498058006003
- George, D., & Mallery, P. (2010). *SPSS for Windows step by step : a simple study guide and reference, 17.0 update*. Boston, Mass.: Allyn & Bacon.
- Georges, J. C. (1996). The Myth of Soft-Skills Training. *Training*, 33(1).
- Gergen, K. J. (1990). Toward a postmodern psychology. *The Humanistic Psychologist*, 18(1), 23.
- Gergen, K. J. (2009). *Realities and relationships: Soundings in social construction*: Harvard University press.



- Gilbert, N. (2008). *Researching social life*: Sage.
- Goldman, A., Balthazard, P. A., Cooke, R. A., & Potter, R. E. (2006). Dysfunctional culture, dysfunctional organization: Capturing the behavioral norms that form organizational culture and drive performance. *Journal of Managerial Psychology*, 21(8), 709-732. doi: 10.1108/02683940610713253
- Goldstein, I. L., & Ford, J. K. (2002). *Training in organizations: Needs assessment, development, and evaluation, 4th ed.* Belmont, CA, US: Wadsworth/Thomson Learning.
- Grohmann, A., & Kauffeld, S. (2013). Evaluating training programs: development and correlates of the Questionnaire for Professional Training Evaluation. *International Journal of Training & Development*, 17(2), 135-155. doi:10.1111/ijtd.12005
- Grohmann, A., Beller, J., & Kauffeld, S. (2014). Exploring the critical role of motivation to transfer in the training transfer process. *International Journal of Training & Development*, 18(2), 84-103. doi:10.1111/ijtd.12030
- Grossberg, L. (1992). *Is there a fan in the house? The affective sensibility of fandom* (Vol. 59): London: Routledge.
- Grossman, R., & Salas, E. (2011). The transfer of training: what really matters. *International Journal of Training and Development*, 15(2), 103-120. doi:10.1111/j.1468-2419.2011.00373.x
- Guerci, M., & Vinante, M. (2011). Training evaluation: an analysis of the stakeholders' evaluation needs. *Journal of European Industrial Training*, 35(4), 385. doi:10.1108/03090591111128342
- Guillén Ramo, L. (2009). Chapter 1: How can we make sense of emotional and social competencies within organizational settings? *Emotions in Groups, Organizations and Cultures* (pp. 1-21): Emerald Group Publishing Limited.
- Guo, Y., Guan, Y., Yang, X., Xu, J., Zhou, X., She, Z., . . . Deng, Y. (2014). Career adaptability, calling and the professional competence of social work students in China: A career

- construction perspective. *Journal of Vocational Behavior*, 85(3), 394-402. doi: [10.1016/j.jvb.2014.09.001](https://doi.org/10.1016/j.jvb.2014.09.001)
- Gwaltney, C. J., Metrik, J., Kahler, C. W., & Shiffman, S. (2009). Self-efficacy and smoking cessation: a meta-analysis: American Psychological Association.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis: Pearson New International Edition* (Vol. Seventh edition). Harlow, Essex: Pearson.
- Hartnell, C. A., Ou, A. Y., & Kinicki, A. (2011). *Organizational culture and organizational effectiveness: a meta-analytic investigation of the competing values framework's theoretical suppositions*: American Psychological Association.
- Herrbach, O. (2006). A matter of feeling? The affective tone of organizational commitment and identification. *Journal of Organizational Behavior*, 27(5), 629-643. doi: [10.1002/job.362](https://doi.org/10.1002/job.362)
- Hinkin, T. R. (1998). A Brief Tutorial on the Development of Measures for Use in Survey Questionnaires. *Organizational Research Methods*, 1(1), 104-121. doi:10.1177/109442819800100106
- Hirschi, A. (2009). Career adaptability development in adolescence: Multiple predictors and effect on sense of power and life satisfaction. *Journal of Vocational Behavior*, 74(2), 145-155. doi:10.1016/j.jvb.2009.01.002
- Hoepfner, B. B., Kelly, J. F., Urbanoski, K. A., & Slaymaker, V. (2011). Comparative utility of a single-item versus multiple-item measure of self-efficacy in predicting relapse among young adults. *Journal of substance abuse treatment*, 41(3), 305-312. doi:10.1016/j.jsat.2011.04.005
- Hofstede, G. (1980). Motivation, leadership, and organization: do American theories apply abroad? *Organizational dynamics*, 9(1), 42-63. doi:10.1016/0090-2616(80)90013-3
- Holton, E. F., Bates, R. A., & Ruona, W. E. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11(4), 333.
- Holton, E. F. (2005). Holton's Evaluation Model: New Evidence and Construct Elaborations.

- Advances in developing human resources*, 7(1), 37-54. doi:10.1177/1523422304272080
- Howardson, G. N. (2015). *Within-Learner Affective Changes and Relationships with Skill Learning* (Doctoral dissertation, The George Washington University). Retrieved from <https://search.proquest.com/openview/4c42e1adcdd292d22e6b3fc059d0b065/1?pq-origsite=gscholar&cbl=18750&diss=y> (March, 2017)
- Howardson, G. N., & Behrend, T. S. (2016). Coming full circle with reactions: understanding the structure and correlates of trainee reactions through the affect circumplex. *Academy of Management Learning & Education*, 15(3), 471-492.
- Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55. doi:10.1080/10705519909540118
- Hu, L.T., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). Thousand Oaks, CA: Sage.
- Hutcheson, G. D., & Sofroniou, N. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*: Sage. doi:10.4135/9780857028075
- Ito, J. K., & Brotheridge, C. M. (2005). Does supporting employees' career adaptability lead to commitment, turnover, or both? *Human Resource Management*, 44(1), 5-19. doi: 10.1002/hrm.20037
- Kauffeld, S., & Lehmann-Willenbrock, N. (2010). Sales training: effects of spaced practice on training transfer. *Journal of European Industrial Training*(1), 23-37. doi:10.1108/03090591011010299
- Kauffeld, S., Bates, R., Holton, E. F., & Müller, A. C. (2008). The German version of the Learning Transfer Systems Inventory (GLTSI): Psychometric validation. *Zeitschrift für Personalpsychologie*, 7(2), 50-69. doi:10.1026/1617-6391.7.2.50
- Kauffeld, S., Brennecke, J., & Strack, M. (2009). Erfolge sichtbar machen: das Maßnahmen-Erfolgs-

- Inventar (MEI) zur Bewertung von Trainings. [Visualizing Training Outcomes: The MEI for Training Evaluations]. In S. Kauffeld, S. Grote, & E. Frieling (Eds.), *Handbuch Kompetenzentwicklung* (pp. 55-78): Stuttgart: Schäffer-Poeschel.
- Kirkpatrick, D. L. (1967). Evaluation of training *Training and Development Handbook* (pp. 87-112). New York: McGraw Hill.
- Kirkpatrick, D. L., & Kirkpatrick, J. D. (2007). *Implementing the four levels : a practical guide for effective evaluation of training programs*. San Francisco, CA: Berrett-Koehler Publishers.
- Kirkpatrick, J. D., & Kirkpatrick, W. K. (2016). *Kirkpatrick's Four Levels of Training Evaluation*. Alexandria, VA: Association For Talent Development.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*: Guilford publications
- Kodwani, A. D. (2017). Decoding training effectiveness: the role of organisational factors. *Journal of Workplace Learning*, 29(3), 200-216. doi:10.1108/JWL-05-2016-0038
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2001). Experiential learning theory: Previous research and new directions *Perspectives on thinking, learning, and cognitive styles* (Vol. 1, pp. 227-247). Mahwah, NJ: Lawrence Erlbaum.
- Kontoghiorghes, C. (2001). Factors Affecting Training Effectiveness in the Context of the Introduction of New Technology—A US Case Study. *International Journal of Training & Development*, 5(4), 248-260. doi:10.1111/1468-2419.00137
- Kónya, V., Matić, D., & Pavlović, J. (2016). The influence of demographics, job characteristics and characteristics of organizations on employee commitment. *Acta Polytechnica Hungarica*, 13(3), 119-138.

- Kooij, D. T., De Lange, A. H., Jansen, P. G., Kanfer, R., & Dikkers, J. S. (2011). Age and work-related motives: Results of a meta-analysis. *Journal of Organizational Behavior*, 32(2), 197-225. doi: 10.1002/job.665
- Kraiger, K. (2002). *Creating, implementing, and managing effective training and development : state-of-the-art lessons for practice*. San Francisco, CA: Jossey-Bass.
- Laine, E., & Gegenfurtner, A. (2013). Stability or change? Effects of training length and time lag on achievement goal orientations and transfer of training. *International Journal of Educational Research*, 61, 71-79.
- Laker, D. R., & Powell, J. L. (2011). The differences between hard and soft skills and their relative impact on training transfer. *Human Resource Development Quarterly*, 22(1), 111-122. doi:10.1002/hrdq.20063
- Lambrechts, F., Grieten, S., Bouwen, R., & Corthouts, F. (2009). Process consultation revisited: Taking a relational practice perspective. *The Journal of Applied Behavioral Science*, 45(1), 39-58. doi:doi/abs/10.1177/0021886308326563
- Lammers, J., Stoker, J. I., Rink, F., & Galinsky, A. D. (2016). To have control over or to be free from others? The desire for power reflects a need for autonomy. *Personality and Social Psychology Bulletin*, 42(4), 498-512. doi:10.1177/0146167216634064
- Langher, V., Brancadoro, B., D'Angeli, M., & Caputo, A. (2014). Imagining Future Internship in Professional Psychology: A Study on University Students' Representations. *Universitas Psychologica*, 13(4), 1589-1601.
- Langher, V., Caputo, A., & Ricci, M. E. (2017). The potential role of perceived support for reduction of special education teachers' burnout. *International Journal of Educational Psychology*, 6(2), 120. doi: 10.17583/ijep.2017.2126
- Latham, G. P. (1988). Human Resource Training and Development. *Annual Review of Psychology*, 39(1), 545-582. doi:10.1146/annurev.ps.39.020188.002553

- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel psychology*, 28, 563-575. doi:10.1111/j.1744-6570.1975.tb01393.x
- Lewis, T. (1996). A model for thinking about the evaluation of training. *Performance Improvement Quarterly*, 9(1), 3-22. doi:10.1111/j.1937-8327.1996.tb00708.x
- Lichtenberg, J. D. (2013). *Psychoanalysis and motivation* (Vol. 10): Routledge.
- Liebermann, S., & Hoffmann, S. (2008). The impact of practical relevance on training transfer: evidence from a service quality training program for German bank clerks. *International Journal of Training & Development*, 12(2), 74-86. doi:10.1111/j.1468-2419.2008.00296.x
- Lievens, F. (2007). Employer branding in the Belgian Army: The importance of instrumental and symbolic beliefs for potential applicants, actual applicants, and military employees. *Human Resource Management*, 46(1), 51-69. doi: [10.1002/hrm.20145](https://doi.org/10.1002/hrm.20145)
- Lievens, F., & Highhouse, S. (2003). The relation of instrumental and symbolic attributes to a company's attractiveness as an employer. *Personnel psychology*, 56(1), 75-102. doi: 10.1111/j.1744-6570.2003.tb00144.x
- Lim, D. H., & Morris, M. L. (2006). Influence of trainee characteristics, instructional satisfaction, and organizational climate on perceived learning and training transfer. *Human resource development quarterly*, 17(1), 85-115. doi:10.1002/hrdq.1162
- Linton, M. (1982). Transformations of memory in everyday life. . In U. Neisser (Ed.), *Memory observed: Remembering in natural contexts* (pp. 77-91). San Francisco (CA): Freeman.
- Litwin, G. H., & Stringer, R. A. (1968). *Motivation and organizational climate*. Boston: Harvard Univ.
- Loo, R. (2002). A caveat on using single-item versus multiple-item scales. *Journal of Managerial Psychology*, 17(1), 68. doi:10.1108/02683940210415933
- Lourenço, D. F. M. E. C. (2016, July 2017). *Self-regulated learning and training effectiveness*. Doctoral Dissertation. Retrieved from edsbas database. Portugal, Europe.

- Machin, M. A., & Fogarty, G. J. (2004). Assessing the Antecedents of Transfer Intentions in a Training Context. *International Journal of Training and Development*, 8(3), 222-236. doi:10.1111/j.1360-3736.2004.00210.x
- Madrid, H. P., & Patterson, M. G. (2014). Measuring affect at work based on the valence and arousal circumplex model. *The Spanish journal of psychology*, 17, E50. doi:10.1017/sjp.2014.54
- Mannarini, T., Ciavolino, E., Nitti, M., & Salvatore, S. (2012). The role of affects in culture-based interventions: Implications for practice. *Psychology*, 3(8), 569.
- Marcus, P. (2017). *The Psychoanalysis of Career Choice, Job Performance, and Satisfaction: How to Flourish in the Workplace*: Routledge.
- Martuza, V. R. (1977). *Applying norm-referenced and criterion-referenced measurement in education*: Allyn & Bacon, Incorporated.
- Massenberg, A. C., Schulte, E. M., & Kauffeld, S. (2017). Never too early: Learning transfer system factors affecting motivation to transfer before and after training programs. *Human Resource Development Quarterly*, 28(1), 55-85. doi:10.1002/hrdq.21256
- Massenberg, A.-C., Spurk, D., & Kauffeld, S. (2015). Social support at the workplace, motivation to transfer and training transfer: a multilevel indirect effects model. *International Journal of Training and Development*(3), 161. doi:10.1111/ijtd.12054
- Matte-Blanco, I. (1975). *The unconscious as infinite sets: An essay in bi-logic*. London: Duckworth.
- McClelland, D. C. (1961). *The achievement society*. Princenton, NJ: Von Nostrand.
- McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of applied psychology*, 67(6), 737. doi:10.1037/0021-9010.67.6.737
- McKenzie, J. F., Wood, M. L., Kotecki, J. E., & Clark, J. K. (1999). Establishing content validity: using qualitative and quantitative steps. *American Journal of Health Behavior*, 23(4), 311-318. doi:http://dx.doi.org/10.5993/AJHB.23.4.9
- Modell, A. H. (2003). *Imagination and the meaningful brain*: MIT Press.

- Montesarchio, G., & Venuleo, C. (2009). *Colloquio magistrale. La narrazione generativa* [Masterly interview. Generative narrative]. Milano: FrancoAngeli.
- Moscovici, S. (1988). Notes towards a description of social representations. *European journal of social psychology*, 18(3), 211-250. doi:10.1002/ejsp.2420180303
- Mossi, P., & Salvatore, S. (2011). Psychological transition from meaning to sense. *European journal of education and psychology*, 4(2).
- Nauta, A., Vianen, A., Heijden, B., Dam, K., & Willemsen, M. (2009). Understanding the factors that promote employability orientation: the impact of employability culture, career satisfaction, and role breadth self-efficacy. *Journal of Occupational and Organizational Psychology*, 82(2), 233-251. doi: 10.1348/096317908X320147
- Ng, T. W., & Feldman, D. C. (2014). Subjective career success: A meta-analytic review. *Journal of Vocational Behavior*, 85(2), 169-179. doi:10.1016/j.jvb.2014.06.001
- Nickols, F. W. (2005). Why a Stakeholder Approach to Evaluating Training. *Advances in developing human resources*, 7(1), 121-134. doi:10.1177/1523422304272175
- Noe, R. A. (1986). Trainees' Attributes and Attitudes: Neglected Influences on Training Effectiveness. *Academy of Management Review*, 11(4), 736-749. doi:10.5465/AMR.1986.4283922
- Nugus, P. (2008). The interactionist self and grounded research: reflexivity in a study of emergency department clinicians. *Qualitative Sociology Review*, 4(1), 189-204.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Ortony, A., Clore, G. L., & Foss, M. A. (1987). The referential structure of the affective lexicon. *Cognitive science*, 11(3), 341-364. doi: 10.1207/s15516709cog1103\_4
- Owens, P. L. (2006). One More Reason Not to Cut Your Training Budget: The Relationship between Training and Organizational Outcomes. *Personnel Administration*, 35(2), 163-172. doi:10.1177/009102600603500205



- Paniccia, R. M., Giovagnoli, F., & Giuliano, S. (2008). Per una psicologia clinica dello sviluppo. La competenza a costruire contesti come prodotto dell'intervento. [For a clinical psychology of development. The competence to construct contexts as the outcome of intervention]. *Rivista di Psicologia Clinica* [Online Journal], (1). Retrieved from: <http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article/download/65/96> (Jan. 2015)
- Paniccia, R. M., Giovagnoli, F., Giuliano, S., Terenzi, V., Bonavita, V., Bucci, F., . . . Carli, R. (2009). *Cultura Locale e soddisfazione degli studenti di psicologia. Una indagine sul corso di laurea "intervento clinico" alla Facoltà di Psicologia I dell'Università di Roma "Sapienza"*. [Local Culture and Psychology students' satisfaction]. *Rivista di Psicologia clinica* [Online Journal] (1). Retrieved from: [http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article /view/253/363](http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article/view/253/363)
- Parente, D. H., Stephan, J. D., & Brown, R. C. (2012). Facilitating the acquisition of strategic skills: The role of traditional and soft managerial skills. *Management Research Review*, 35(11), 1004-1028. doi:10.1108/01409171211276918
- Patton, M. Q. (1987). *How to use qualitative methods in evaluation*: Sage.
- Pepe, S. J., Farnese, M. L., Avallone, F., & Vecchione, M. (2010). Work Self-efficacy Scale and Search for Work Self-efficacy Scale: A validation study in Spanish and Italian cultural contexts. *Revista de Psicología del Trabajo y de las Organizaciones*, 26(3).
- Peters, S., Cossette, M., Bates, R., Holton, E., Hansez, I., & Faulx, D. (2014). The influence of transfer climate and job attitudes on the transfer process: Modeling the direct and indirect effects. *Journal of Personnel Psychology*, 13(4), 157-166. doi:10.1027/1866-5888/a000109
- Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of consumer research*, 21(2), 381-391. doi:10.1086/209405
- Petitta, L., & Ghezzi, V. (2012). A Holistic Approach to the Explanation of Organizational Behavior: The Theory and Practice of "Analysis of Demand". In *Experiencing and Managing Emotions*

- in the Workplace* (pp. 105-137). Emerald Group Publishing Limited.
- Phillips, J. J. (2012). *Handbook of Training Evaluation and Measurement Methods* (Vol. 3). Hoboken: Routledge.
- Phillips, P. P., Ray, R., & Phillips, J. J. (2015). *Measuring the Success of Leadership Development : A Step-by-step Guide for Measuring Impact and Calculating ROI*. Alexandria, VA: Association For Talent Development.
- Phillips, P. W. (2007). *The ROI fieldbook : strategies for implementing ROI in HR and training / Patricia Pulliam Phillips [et al.]*. Amsterdam: Elsevier Butterworth-Heinemann.
- Pilar, P. (2010). Evaluation of training in organisations: a proposal for an integrated model. *Journal of European Industrial Training*(7), 673-693. doi:10.1108/03090591011070789
- Pineda, P. (2010). Evaluation of training in organisations: a proposal for an integrated model. *Journal of European Industrial Training*, 34(7), 673-693.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annual review of psychology*, 63, 539-569. doi:10.1146/annurev-psych-120710-100452
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879.
- Pouyaud, J., Vignoli, E., Dosnon, O., & Lallemand, N. (2012). Career adapt-abilities scale-France form: Psychometric properties and relationships to anxiety and motivation. *Journal of Vocational Behavior*, 80(3), 692-697. doi: 10.1016/j.jvb.2012.01.021
- Prenestini, A., & Lega, F. (2013). Do senior management cultures affect performance? Evidence from Italian public healthcare organizations. *Journal of Healthcare Management*, 58(5), 336-352.
- Rahim Zumrah, A. (2013). Is job satisfaction enhancing learning-training transfer relationship?

- Journal of Workplace Learning*, 25(8), 543-555. doi:10.1108/JWL-02-2013-0005
- Rammstedt, B. (2007). The 10-item Big Five Inventory (BFI-10): norm values and investigation of socio-demographic effects based on a German population representative sample. *European Journal of Psychological Assessment*, 23(3), 193–201. doi:10.1027/1015-5759.23.3.193
- Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality*, 41(1), 203-212. doi:10.1016/j.jrp.2006.02.001
- Ran, S., & Huang, J. L. (2017). Enhancing adaptive transfer of cross-cultural training: Lessons learned from the broader training literature. *Human Resource Management Review*. doi:10.1016/j.hrmr.2017.08.004
- Raquel, V., & António, C. (2007). Training transfer: the mediating role of perception of learning. *Journal of European Industrial Training*, 31(4), 283-296. doi:10.1108/03090590710746441
- Rebok, G. W., & Balcerak, L. J. (1989). Memory self-efficacy and performance differences in young and old adults: The effect of mnemonic training. *Developmental Psychology*, 25(5), 714-721.
- Rekik, G., & Bali, N. (2017). Tunisian Physical Education Student Trainees' Agreement Rate about the Consistency between Initial Training and Integration during the Preparatory Internship for Professional Life. *Creative Education*, 8(03), 373.
- Remington, N. A., Fabrigar, L. R., & Visser, P. S. (2000). Reexamining the circumplex model of affect. *Journal of personality and social psychology*, 79(2), 286. doi: [10.1037/0022-3514.79.2.286](https://doi.org/10.1037/0022-3514.79.2.286)
- Rigdon, E. E. (1996). CFI versus RMSEA: A comparison of two fit indexes for structural equation modeling. *Structural Equation Modeling*, 3(4), 369-379. doi:10.1080/10705519609540052
- Rigotti, T., Schyns, B., & Mohr, G. (2008). A short version of the occupational self-efficacy scale: Structural and construct validity across five countries. *Journal of Career Assessment*, 16(2), 238-255. doi:10.1177/1069072707305763

- Ritzmann, S., Hagemann, V., & Kluge, A. (2014). The Training Evaluation Inventory (TEI)-evaluation of training design and measurement of training outcomes for predicting training success. *Vocations and Learning*, 7(1), 41-73. doi:doi 10.1007/s12186-013-9106-4
- Robles, M. M. (2012). Executive Perceptions of the Top 10 Soft Skills Needed in Today's Workplace. *Business Communication Quarterly*, 75(4), 453-465.  
doi:10.1177/1080569912460400
- Rogelberg, S. G., & Stanton, J. M. (2007). Introduction: Understanding and dealing with organizational survey nonresponse: Sage Publications Sage CA: Los Angeles, CA.
- Rudolph, C. W., Lavigne, K. N., & Zacher, H. (2017). Career adaptability: A meta-analysis of relationships with measures of adaptivity, adapting responses, and adaptation results. *Journal of Vocational Behavior*, 98, 17-34. doi: 10.1016/j.jvb.2016.09.002
- Ruggieri, R., Pozzi, M., & Ripamonti, S. (2014). Italian family business cultures involved in the generational change. *Europe's Journal of Psychology*, 10(1), 79–103.
- Saavedra, R., & Kwun, S. K. (2000). Affective states in job characteristics theory. *Journal of Organizational Behavior*, 131-146. doi:10.1002/(SICI)1099-1379(200003)21:2<131::AID-JOB39>3.0.CO;2-Q
- Salas, E., & Cannon-Bowers, J. A. (2001). The science of training: A decade of progress. *Annual review of psychology*, 52(1), 471-499. doi:doi.org/10.1016/j.edurev.2012.05.007
- Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The Science of Training and Development in Organizations: What Matters in Practice. *Psychol Sci Public Interest*, 13(2), 74-101. doi:10.1177/1529100612436661
- Salvatore, S. (2006). Modelli della conoscenza ed agire psicologico [Models of knowledge and psychological action]. *Rivista di psicologia clinica* [Online Journal], 2(3). Retrieved from <http://www.rivistadipsicologiaclinica.it/ojs/index.php/rpc/article/view/273> (Oct. 2014)
- Salvatore, S. (2016). Cultural psychology of desire. In J. Valsiner, G. Marsico, N. Chaudhary, T.

- Sato, & V. Dazzani (Eds.), *Psychology as the Science of Human Being* (pp. 33-49): Springer.
- Salvatore, S. (2016). *Cultural psychology of desire. Psychology as the Science of Human Being* (pp. 33-49): Springer. doi: 10.1007/978-3-319-21094-0\_3
- Salvatore, S., & Freda, M. F. (2011). Affect, unconscious and sensemaking. A psychodynamic, semiotic and dialogic model. *New Ideas in Psychology*, 29(2), 119-135. doi: 10.1016/j.newideapsych.2010.06.001
- Salvatore, S., & Venuleo, C. (2009). *The unconscious as source of sense: A psychodynamic approach to meaning. Symbolic transformations: The mind in movement through culture and society*. London: Routledge.
- Salvatore, S., & Zittoun, T. (2011). Outlines of a psychoanalytically informed cultural psychology. *Cultural psychology and psychoanalysis: Pathways to synthesis*, 3-46.
- Salvatore, S., Freda, M. F., Ligorio, B., Iannaccone, A., Rubino, F., Scotto di Carlo, M., . . . Gentile, M. (2003). Socioconstructivism and theory of the unconscious. A gaze over a research horizon. *European Journal of School Psychology*, 1(1), 9-36.
- Saraceni, C., & Carli, R. (1970). Studio sperimentale delle relazioni psicosociali in un ambiente carcerario. [Experimental study on psychosocial relations in a prison context]. [Experimental study on psychosocial relations in a prison context]. *Quaderni di Criminologia Clinica*, 12(4), 321-354.
- Saraceni, C., & Carli, R. (1970). Studio sperimentale delle relazioni psicosociali in un ambiente carcerario [Experimental study on psychosocial relations in a prison context]. *Quaderni di Criminologia Clinica*, 12(4), 321-354.
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661-673. doi:10.1016/j.jvb.2012.01.011
- Scaduto, A., Lindsay, D., & Chiaburu, D. S. (2008). Leader influences on training effectiveness:

- motivation and outcome expectation processes. *International Journal of Training & Development*, 12(3), 158-170. doi:10.1111/j.1468-2419.2008.00303.x
- Schein, E. H. (1983). The role of the founder in creating organizational culture. *Organizational dynamics*, 12(1), 13-28.
- Schein, E. H. (1993). Legitimizing clinical research in the study of organizational culture. *Journal of counseling & development*, 71(6), 703-708.
- Schein, E. H. (1995). Process consultation, action research and clinical inquiry: are they the same? *Journal of Managerial Psychology*, 10(6), 14-19. doi:10.1108/02683949510093830
- Schein, E. H. (1999). *Process consultation revisited: Building the helping relationship*: Addison-Wesley Reading, MA.
- Schein, E. H. (2006). Clinical inquiry/research. *Handbook of action research*, 185-194.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2): John Wiley & Sons.
- Schein, E. H. (2013). On Communication. *Reflections*, 13(2), 10-13.
- Schon, D. A. (1983). *The Reflective Practitioner* New York: Harper & Collins.
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*: Jossey-Bass.
- Schriesheim, C. A., Eisenbach, R. J., & Hill, K. D. (1991). The effect of negation and polar opposite item reversals on questionnaire reliability and validity: An experimental investigation. *Educational and Psychological Measurement*, 51(1), 67-78. doi: 10.1177/0013164491511005
- Schriesheim, C. A., Hinkin, T. R., & Podsakoff, P. M. (1991). Can Ipsative and Single-Item Measures Produce Erroneous Results in Field Studies of French and Raven's (1959) Five Bases of Power? An Empirical Investigation. *Journal of Applied Psychology*, 76(1), 106-114.
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling*: Psychology Press.
- Simosi, M. (2012). The moderating role of self-efficacy in the organizational culture–training transfer relationship. *International Journal of Training and Development*, 16(2), 92-106.

doi:10.1111/j.1468-2419.2011.00396.x/full

- Simosi, M., & Xenikou, A. (2010). The role of organizational culture in the relationship between leadership and organizational commitment: an empirical study in a Greek organization. *The International Journal of Human Resource Management*, 21(10), 1598-1616. doi: [10.1080/09585192.2010.500485](https://doi.org/10.1080/09585192.2010.500485)
- Sitzmann, T., & Weinhardt, J. M. (2017). Approaching evaluation from a multilevel perspective: A comprehensive analysis of the indicators of training effectiveness. *Human Resource Management Review*, (in press). doi:10.1016/j.hrmr.2017.04.001
- Slaughter, J. E., Zickar, M. J., Highhouse, S., & Mohr, D. C. (2004). Personality trait inferences about organizations: development of a measure and assessment of construct validity. *Journal of applied psychology*, 89(1), 85. doi: 10.1037/0021-9010.89.1.85
- Slovak, P., Frauenberger, C., & Fitzpatrick, G. (2017). *Reflective Practicum: A Framework of Sensitising Concepts to Design for Transformative Reflection*. Paper presented at the Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems.
- Sørensen, P. (2017). What research on learning transfer can teach about improving the impact of leadership-development initiatives. *Consulting Psychology Journal: Practice and Research*, 69(1), 47-62. doi:10.1037/cpb0000072
- Soresi, S., Nota, L., & Ferrari, L. (2012). Career Adapt-Abilities Scale-Italian Form: Psychometric properties and relationships to breadth of interests, quality of life, and perceived barriers. *Journal of Vocational Behavior*, 80(3), 705-711. doi: 10.1016/j.jvb.2012.01.020
- Sousa, V. D., & Rojjanasrirat, W. (2011). Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: a clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice*, 17(2), 268-274. doi:10.1111/j.1365-2753.2010.01434.x

- Spaltro, E. (1984). *Sentimento del potere: analisi dei rapporti umani*. [The Sentiment of Power: Analysis of Human Relations]. Torino: Boringhieri.
- Steers, R. M., & Braunstein, D. N. (1976). A behaviorally-based measure of manifest needs in work settings. *Journal of Vocational Behavior*, 9(2), 251-266. doi: 10.1016/0001-8791(76)90083-X
- Sungjun, K., Huh-Jung, H., & Jinkyu, L. (2015). Organizational Attitudes as Precursors to Training Performance. *Human Resource Development Quarterly*, 26(4), 409-429.  
doi:10.1002/hrdq.21218
- Swanson, R. A. (2007). *Analysis for Improving Performance : Tools for Diagnosing Organizations and Documenting Workplace Expertise* (Vol. 2). San Francisco: Berrett-Koehler Publishers.
- Tabachnick, B. G., & Fidell, L. S. (2006). *Using Multivariate Statistics (5th Edition)*: Allyn & Bacon, Inc.
- Tanaka, J. S. (1993). Multifaceted conceptions of fit in structural equation models. In L. J. S. Kenneth A. Bollen (Ed.), *Testing structural equation models* (pp. 10-39). Newbury Park, CA: Sage.
- Tannenbaum, S. I., & Yukl, G. (1992). Training and development in work organizations. *Annual Review of Psychology*, 43(1), 399-441. doi:10.1146/annurev.ps.43.020192.002151
- Tharenou, P., Saks, A. M., & Moore, C. (2007). A review and critique of research on training and organizational-level outcomes. *Human Resource Management Review*, 17(3), 251-273.  
doi:10.1016/j.hrmr.2007.07.004
- Thompson, C. A., Kopelman, R. E., & Schriesheim, C. A. (1992). Putting all one's eggs in the same basket: A comparison of commitment and satisfaction among self-and organizationally employed men. *Journal of Applied Psychology*, 77(5), 738. doi:10.1037/0021-9010.77.5.738
- Tolentino, L. R., Garcia, P. R. J. M., Lu, V. N., Restubog, S. L. D., Bordia, P., & Plewa, C. (2014). Career adaptation: The relation of adaptability to goal orientation, proactive personality, and



- career optimism. *Journal of Vocational Behavior*, 84(1), 39-48. doi: [10.1016/j.jvb.2013.11.004](https://doi.org/10.1016/j.jvb.2013.11.004)
- Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and teacher Education*, 23(6), 944-956. doi:10.1016/j.tate.2006.05.003
- Valsiner, J. (2014). *Needed for cultural psychology: Methodology in a new key*: Sage Publications Sage UK: London, England.
- van der Locht, M., van Dam, K., & Chiaburu, D. S. (2013). Getting the most of management training: the role of identical elements for training transfer. *Personnel Review*, 42(4), 422-439.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management journal*, 41(1), 108-119. doi: 10.2307/256902
- Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of occupational health psychology*, 5(2), 219. doi: 10.1037/1076-8998.5.2.219
- Voronov, M., & Vince, R. (2012). Integrating emotions into the analysis of institutional work. . *Academy of Management Review*, 37(1), 58-81. doi:10.5465/amr.2010.0247
- Wang, G. G., & Spitzer, D. R. (2005). Advances in HRD measurement and evaluation : theory and practice. *Academy of Human Resource Development*, 7(1), 5-15. doi:10.1177/1523422304272077
- Wang, G. G., & Wilcox, D. (2006). Training Evaluation: Knowing More Than Is Practiced. *Advances in Developing Human Resources*, 8(4), 528-539. doi:10.1177/1523422306293007
- Warr, P. (2011). *Work, happiness, and unhappiness*: Psychology Press.

- Warr, P., Bindl, U. K., Parker, S. K., & Inceoglu, I. (2014). Four-quadrant investigation of job-related affects and behaviours. *European Journal of Work and Organizational Psychology*, 23(3), 342-363. doi:10.1080/1359432X.2012.744449
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology*, 54(6), 1063. doi: 10.1037/0022-3514.54.6.1063
- Westen, D. (1991). Social cognition and object relations. *Psychological Bulletin*, 109(3), 429. doi: 10.1037/0033-2909.109.3.429
- Xia, S., & Zheng-hua, D. (2015). Parenting Behaviors and Career Adaptability:The Mediating Effects of Achievement Motivation. *Chinese Journal of Clinical Psychology*, 2, 174-177.
- Yelon, S. L., & Ford, J. K. (1999). Pursuing a Multidimensional View of Transfer. *Performance Improvement Quarterly*, 12(3), 58-78. doi:10.1111/j.1937-8327.1999.tb00138.x
- Yelon, S. L., Kevin Ford, J., & Bhatia, S. (2014). How Trainees Transfer What They Have Learned: Toward a Taxonomy of Use. *Performance Improvement Quarterly*, 27(3), 27. doi:10.1002/piq.21172