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**OBJECTIFIED WORKERS:**

**OTHER AND SELF-OBJECTIFICATION IN THE WORK DOMAIN**

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*To my parents*



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## ABSTRACT

Despite several important scholars (e.g. Arendt, 1958; Marx, 1844) reflected upon the perception and treatment of workers as mere objects, empirical research on this field is still in its infancy. For example, Gruenfeld and colleagues (2008) analyzed objectification in hierarchical working relationships, finding that participants in high power positions perceived their subordinates as mere instruments. Baldissarri, Andrighetto and Volpato (2014) expanded these results showing that the perception of being treated as an instrument by superiors was related with workers' self-objectification. Even though these studies are particularly relevant as they analysed the motivational underpinnings of the phenomenon, objectification is a complex process and may emerge in the absence of asymmetrical power relations between the perceiver and the target. Starting from different theoretical analyses, the present dissertation sought to expand the knowledge on the antecedents and on the consequences of working objectification. In particular, we aimed to demonstrate that the work activities that an individual performs represent per se an important cognitive source of other and self-objectification.

In the first set of laboratory studies, we aimed to verify if the execution of an activity characterized by repetitiveness, fragmentation and other-direction led laypeople to objectify the worker who performs it. Results showed that each of the critical features of factory work significantly affected the view of the worker as an instrument and as less able to experience human mental states. Coherently, we found that factory workers, unlike artisans, were perceived as more objectified when participants were asked to focus on the target's manual activities rather than on the target as a person.

In the second set of studies, we analysed if performing an activity with the same critical features led participants to self-objectify. Furthermore, we considered a possible consequence of self-objectification: the reduction of belief in personal free will. We consistently found that performing a manual, or a computer, objectifying task led participants to objectify themselves in terms of both decreased self-attribution of human mental states and increased self-perception of being instrument-

like. Crucially, this increased self-objectification mediated the relationship between performing an objectifying activity and the participants' decreased belief in personal free will.

Finally, we replicated and expanded the findings on self-objectification in two field studies, in which we considered, beyond the two already studied sources of objectification (i.e., the performed activity and the perception of being objectified by others), the perceived job insecurity. Furthermore, we introduced another possible consequence of self-objectification, that is the reduction of personal well-being. As expected, objectifying job conditions and perception of being objectified were related to high level of self-objectification that in turn led to a decreased belief in personal free will. Furthermore, self-objectification played the same mediational role in the relationship between objectifying job conditions, perception of being objectified, perceived job insecurity and the reduction of well-being.

## INTRODUCTION

“Work provides most of us with one of our primary roles in society: as a worker (...) At the core we are all workers” (Berkman, 2014). Work is a central aspect of human life: it structures the social reality and represents one of the main sources of people’s identity expression and personal worth sense (Bandura, 1995; Cheney, Zorn, Planalp, & Lair, 2008; Ciulla, 2000; Erikson, 1959; Jahoda, 1982). People need to construct positive identities related to their participation in work activities (Dutton, Roberts, & Bednar, 2010) and workplace dignity emerges also from the way people are perceived and treated by others (Lucas, 2011).

However, work is often not a free expression of human identity but is simply labor, which has longstanding connotations of pain and trouble. Just think about the news and the testimonies from different workplaces. In the Amazon’s stocks when an order arrives, the timer starts: the picker has, on average, 30 seconds (but it depends, if it is near, he has 10 sec) to take the object; he/she must often run because an alarm starts if one exceeds the time limits (Castellano & Palmieri, 2016). At an assembly line it has even happened that a worker has been compelled to urinate on himself because the supervisor denied him to take a break (Di Fazio, 2017). In the same company, another worker beat his head and fainted down on the floor. The supervisor asked the other workers to neglect the lying body and to continue to work. The line restarted with the body on the floor (Di Fazio, 2017).

The contemporary work scenario, in which human beings have to keep up with the machine of economy and production in order not to stop its pace, recalls the famous images of *Modern Times* (1936) that are still very actual. A nameless worker tightens bolt on an assembly line in a highly automated factory. All his actions are repetitive and machine-like. Each human movement depends on the machine, and the slightest distraction would disrupt the entire cycle of production. When the worker moves too slowly on the assembly line, he is sucked under the gears of the machine, metaphorically becoming just another part of the machine. Most of the features of Chaplin’s work, such as repetitive, machine-like movements or the total dependence on machines, can still be found in modern industrial work (see, e.g., Hodson &

Sullivan, 2012). Furthermore, beyond these critical features, the current industrialization, the globalization, the progressive simplification and flexibility of job have stoked the processes through which workers are treated as mere interchangeable parts of a machine. For example, in the last critical economic period, several companies decided to delocalize their production. Some did so to survive, whereas others did it simply to obtain greater profits at lower costs, in order to be more competitive. In Italy alone, 27,000 companies have delocalized their production (CGIA Mestre, 2013). In such a scenario, it appears evident that workers can be seen and treated as interchangeable tools, rather than as human beings. It seems that workers have become easily suppressible and replaceable with similar and cheaper instruments without any concern for them, their feelings and their lives, as they were cold objects. This manner of treatment of workers as things is a perfect example of objectification, which means perceiving and “treating as an object what is really not an object, what is, in fact, a human being” (Nussbaum, 1995, p.257).

The present research aims to deeply examine this phenomenon of objectification in the work domain. Indeed, despite several important scholars (e.g. Arendt, 1958; Marx, 1844) reflected upon the perception and treatment of workers as mere objects, empirical research on this field is still in its infancy. In particular, starting from several theoretical analysis on working objectification and from the first empirical studies that focused on its motivational underpinnings, we sought to expand the knowledge on the antecedents and the consequences of other and self-objectification (i.e. the self-perception of being an object and not a human being). In order to achieve this purpose, the phenomenon of objectification will first be presented in Chapter 1. In the first part, I will define it and expose briefly the psychosocial studies on sexual objectification, that is the mainstream line of research on this phenomenon. Then, I will focus on working objectification, presented with a theoretical analysis of work as a source of objectification and with the few psychosocial studies on it. I will conclude the chapter with the research questions. In the following chapters, I will present a series of laboratory studies through which we aimed to demonstrate that the work activities, that an individual performs, represent per se an important cognitive source of other and self-objectification. Furthermore,

we analysed a possible consequence of self-objectification: the reduction of belief in personal free will. Finally, we replicated and expanded the findings on self-objectification in two field studies, in which we considered, beyond the two already studied sources of objectification (i.e., the performed activity and the perception of being objectified by others), the perceived job insecurity. Moreover, we analysed another possible consequence of self-objectification, that is its effect on the reduction of workers' well-being.

Therefore, the general goal of the present work is to empirically and systematically investigate objectification in the work domain. In particular, through the set of studies reported in this dissertation, we aim to address the following research questions: if work is a primary mean of self-evaluation and social self-esteem (Argyle, 1992), what happens when work does not respond to the basic needs for recognition, social self-esteem and identity, but rather, transforms workers into mere objects? What are the factors that trigger objectifying other and self-perceptions? What are the psychological consequences of acting as a machine and of being perceived (and treated) as instruments in one's own workplace?



## **CHAPTER ONE**

### **WORKING OBJECTIFICATION**

## 1. Objectification

Objectification is a form of dehumanization that involves the perception and the treatment of others, individuals or groups, as if they were mere objects (Nussbaum, 1995; Vaes, Loughnan, & Puvia, 2014). Dehumanizing means to deny humanness to other human beings (Volpato & Andrighetto, 2015) and often involves the association to other categories such as animals, demons, robots and objects. This phenomenon can manifest in a blatant way, through strategies that openly deny the humanity of others in order to justify violence and exploitation, or in a subtle way. Objectification often appears in this latter form as a daily perception and treatment of others as mere tools, in a process that erodes the humanity of others usually in an unaware manner. In this process a person is usually judged for his usefulness and considered as a tool for one's own purpose (Gruenfeld, Inesi, Magee, & Galinsky, 2008; see also Bartky, 1990; Frederickson & Roberts, 1997; Nussbaum, 1999).

Nussbaum in the essay “*Objectification*” (1995) identifies seven ways by which one can be objectified. First, the object is considered as an instrument for other purposes (*instrumentality*), it is interchangeable with other objects (*fungibility*), it doesn't have boundary integrity so it is allowed to break it up (*violability*) and it is owned by others so can be sold and bought (*ownership*). Further the object is seen as an entity whose experience and feelings are not needed to be taken into account (*denial of subjectivity*), lacking in autonomy and self-determination (*denial of autonomy*) and in agency and activity (*inertness*). The dimensions of objectification are naturally connected to each other but it is not necessary that they are all present in order to consider a person as objectified. One example reported by Nussbaum, particularly relevant for this dissertation, was the condition of slaves. Slavery is a form of ownership that involves a denial of autonomy and the use of others as mere tools for the owner's purpose. The slave is considered as a set of body parts that can be replaced with other similar bodies or machines. He can be violated and exploited, his emotions are not taken into consideration. Nevertheless, at the same time he is certainly not considered as inert because his only value lies in his physical activity (Nussbaum, 1995). Even though all the dimensions are representative of objectification, according to Nussbaum the most dangerous is the instrumentality.



When a person is perceived and treated primarily and exclusively as an instrument, their human qualities are denied and they become useful and therefore interesting for those who intend to exploit them.

Actually, the seven dimensions identified by Nussbaum can be boiled down to two cardinal aspects that compose objectification (see Holland & Haslam, 2013; Vaes, Loughnan, & Puvia, 2014). Indeed the first four dimensions all concern the instrumentality, the view and treatment of a person as a mere instrument: the objectifier sees the objectified person as a tool, interchangeable with other objects, possessed by someone else and also violable. The latter three ones concern instead the denial of humanness: the objectifier sees the objectified person as lacking autonomy and self-determination, agency and activities, feelings and experiences. Therefore, first, objectification is literally the perception of someone as an object and not as a person (Heflick & Goldenberg, 2014; Nussbaum, 1995). Moreover, this perception involves two aspects: the view and the treatment of the person as an instrument and the denial of humanness related both to agency and to experience (Li, Leidner, & Castano, 2014). Indeed, the aspects of inertness, denial of autonomy and denial of subjectivity fit well with the dimensions of the mind (proposed by Gray, Gray, & Wegner, 2007) that we usually attribute to others when we consider them to be fully human: agency (the ability to have thoughts and intentions, the capacity to act, plan and exert self-control) and experience (the ability to have emotions and sensations, the capacity to feel pain and pleasure). These dimensions are also consistent with the two universal dimensions of human social cognition, competence and warmth (Stereotype Content Model; Fiske, Cuddy, & Glick, 2007), and the two senses of humanness, human uniqueness and human nature, proposed by Haslam and colleagues (Haslam, 2006; Haslam, Loughnan, & Holland, 2013).

### ***1.1 Social psychological research and objectification***

During the last decades psychosocial research has focused on a particular kind of objectification that dominates western society: sexual objectification. As observed by MacKinnon ("All women live in sexual objectification the way fish live in water", MacKinnon, 1989, p. 124), sexual objectification is particularly pervasive

and persistent in our culture. Therefore, inspired by the thought of feminist scholars (e.g., Bartky, 1990; deBeauvoir, 1952; MacKinnon, 1989; Nussbaum, 1995, 1999; Papadaki, 2007), social psychologists have paid their attention on this kind of objectification following two directions.

Most papers on this field focused on the *Objectification Theory* (Fredrickson & Roberts, 1997) and on the consequences of self-objectification. When sexual objectified, women are treated as bodies, or a set of body parts, which exist for the use and enjoyment of others. The main means of objectification is the *objectifying gaze*, which permeates the cultural contexts in which women live, and leads women to internalize the observer's perspective and so to objectify themselves (self-objectification). To explain this phenomenon the authors evoked the concept of the *looking-glass self* (Cooley, 1902): the individual sense of self is a social construction that reflects the way people see and treat that person. In that way, women learn to consider themselves as objects to be evaluated on the basis of their physical appearance. Women's self-objectification has a wide range of negative outcomes (for reviews, see Calogero, Tantleff-Dunn, & Thompson, 2011; Moradi & Huang, 2008), such as increased anxiety and shame (e.g. Aubrey, 2007; Monro & Huon, 2005; Quinn, Kallen, & Cathey, 2006), depressive symptoms (see for a review Jones & Griffiths, 2015), eating disorders (e.g. Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; Tiggemann & Kuring, 2004) and reduced intellectual performance (e.g. Fredrickson et al., 1998; Gervais, Vescio, & Allen, 2011; Guizzo & Cadinu, 2016; Quinn, Kallen, Twenge, & Fredrickson, 2006). Furthermore, self-objectification has particular consequences on social interaction and social activity. For example, Saguy, Quinn, Dovidio and Pratto (2010) showed that, when they are objectified, women tend to speak less and thus to limit their presence in social interactions. In a similar way, Calogero (2013) found that self-objectification is related to an increase of system justification beliefs (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004) and a consequent reduction of activism, showing the detrimental role of self-objectification in maintaining the sexist status quo.

More recent works have explored sexual other-objectification, that is laypeople's objectifying perceptions of sexualised women (see Heflick &

Goldenberg, 2014). Research on other-objectification revealed that merely making a woman's physical appearance salient increases the perceptions of women as object-like and as non-human (see Gervais, 2013; Loughnan & Pacilli, 2014 for reviews). Regarding perceptions of women as objects, Bernard, Gervais, Allen, Campomizzi and Klein (2012; see also Bernard, Gervais, Allen, Delmée, & Klein, 2015) revealed that even at a basic cognitive level, sexualised women are analytically processed as objects, whereas sexualised men are recognised as human beings (for a debate on this research, see Bernard, Gervais, Allen, & Klein, 2013; Bernard, Gervais, Allen, & Klein, 2015; Schmidt, 2015; Schmidt & Kistemaker, 2014; Tarr, 2013). Further, using a face-body pairing memory task, Gervais, Vescio and Allen (2012) found that sexualised women, regardless of body type, were considered fungible and interchangeable with similar others. Regarding the perceptions of women as not fully human, several studies revealed that merely making salient the physical appearance of the woman increases, for example, dehumanizing perceptions (Vaes, Paladino, & Puvia, 2011), while it decreases the attribution of mind (Holland & Haslam, 2013; Loughnan et al., 2010) and the moral status of the target (Loughnan et al., 2010; Loughnan, Pina, Vasquez, & Puvia, 2013; Pacilli et al., 2017). In the same vein, using neuroimaging techniques, Cikara, Eberhardt, and Fiske (2010) found that objectified female targets fail to elicit the activation of brain regions related with mental state attribution, particularly in men with high hostile sexist attitudes. Interestingly, in a series of studies, Heflick, Goldenberg, Cooper and Puvia (2012; see also Heflick & Goldenberg, 2009) induced objectification by manipulating the attentional focus of female and male targets. In line with previous findings, their results coherently demonstrated that women (but not men) were objectified, namely, they were perceived as less defined by the fundamental dimensions of social perception (i.e., competence, warmth, and morality; see Fiske, Cuddy, & Glick, 2007; Leach, Ellemers, & Barreto, 2007), when participants were instructed to focus on their appearance rather than their personhood.

These studies consistently show the pervasiveness of objectification within sexual realm, underlining the detrimental consequence of this phenomenon on the psychosocial well-being of women. However, objectification may encompass a

broader range of human interactions and domains. For instance, health care workers tend to objectify patients by denying their uniquely human attributes as a mechanism for coping with empathic distress (Trifiletti, Di Bernardo, Falvo, & Capozza, 2014; Vaes & Muratore, 2013; see also Haque & Waytz, 2012). More recent studies, instead, analyze objectification in relation to economic dimensions (Wang & Krumhuber, 2016). Interestingly in line with the analysis on the capitalistic society that we will propose below, Wang and Krumhuber (2016) highlight the relationship between the love for money and the increased tendency to objectify others, both in term of instrumentality and of denial of humanness. In particular, they showed that the importance given to money is related positively with the tendency to construe social relationships based on perceived usefulness and instrumentality. Furthermore, thinking about strategies to increase capital led to a denial of human mental abilities of irrelevant targets. This decreased perception of humanness partially mediated the effects of money on destructive behavior, showing that objectification can be a social cognitive link between money and immoral conducts.

## **2. Objectification in the work domain**

As shown above, only recently psychosocial research has expanded its field beyond the sexual realm. However, to date empirical research on objectification has relatively neglected the process of objectification within the work domain. Before presenting the few empirical researches on working objectification, we will discuss the theoretical insights that underline the relevance of this phenomenon related to work. The following analysis is useful to highlight in an undeniable way the presence of objectification, both in term of instrumentality and of denial of humanness, within the work domain since the ancient times, with a particular focus on the consequences of the industrial revolution and the related critiques.

### ***2.1 A theoretical analysis of work as a source of objectification***

Work understood as a main source of identity and of personal worth sense (Bandura, 1995; Cheney, Zorn, Planalp, & Lair, 2008; Ciulla, 2000; Erikson, 1959) is a modern concept. During ancient times, for Greece and Romans work was indeed

only *labor*, mere strain that was reserved for slaves. As already mentioned in the Nussbaum's analysis on objectification, slaves were seen as mere objects, who were considered to be *animate tools* (Aristotle, trans. 1995) or *instrumenti genus vocale* (i.e., talking tools; Varro, trans. 1954). Work, as a set of procedures aimed at the satisfaction of basic needs, subordinated people, who performed it in order to survive, to natural world, making them similar to animals excluded from the real human world. Freedom could manifest only through politics that was, according to Plato, the *basiliké téchne* (i.e. the royal art). On the contrary, every paid profession lost its value and became a temporary slavery.

Medieval man was characterized, instead, by the inventive and creative spirit, turning into the so called *homo faber* (Arendt, 1958): an inventor of tools and a manufacturer of things. The contempt, with which the tradition had considered the whole sphere of manufacture, were partially overcome with the rise of the civilization of the technique. The technical progress implied a revaluation, albeit slight, of the manual labor. The medieval theologians began to promote a new concept of work, which became in fact the life's mainstay of the monks and was seen as a form of purification (e.g. "*ora et labora*"). Nevertheless, during medieval times, there were strong inequalities between social classes. Indeed, people who performed humble jobs were perceived as being marginal and incomplete cases of humanity. For instance, they were associated with the image of the *minus habens* (Todeschini, 2010), a creature that lacks rationality and experience. Similarly, Tomaso d'Aquino defined manual laborers as *cives imperfecti* (i.e., imperfect citizens) and compared them to foreigners or to Jews in the logic of exclusion from effective citizenship. Such representations were supported by the *ius commune* (i.e., the common law), which refers to them as "*artifices ignobiles*" (i.e., despicable workers, Todeschini, 2010; see also Nirenberg, 1996).

At the beginning of the modern era, since the late 1400s until the first decades of 1800s, the basis of the industrial era was laid. Productivity and creativity became the highest ideals, arriving to be idolized. One of the decisive elements of this change was the act related to the repetition of scientific experiment (Andreoni, 2005). The verifiability of the Cartesian doubt, namely that the mind can know only what it

produces, allowed the experiment, a man-made reality, to reach new truths. The test-bed of theory became practical. It was not the contemplation, observation and speculation to produce new knowledge but the active approach of the *homo faber*, of the making and the manufacturing (Arendt, 1958). In this new spirit, work began to acquire positive traits and arrived to be conceived as a continuation on earth of God's creation, becoming an essential activity of life. It was also invested with new economic and political aspects, it became different from the feudal labor but still limited to the manufacture subject to the rules of the family economy. The workers were mainly members of the family and at the same time they were the owners of the means of production. The artisan followed all the stages of the manufacturing: work was a set of physical fatigue and mental load, creativity and execution. This "proto-industrialization" laid the basis of the capitalist production in the classical industrialization's countries (England, France, Germany) providing firm prerequisites for the following industrial development (Andreoni, 2005). Weber (1922) noted that the transition from the cottage production system to its subsequent destruction, caused by the factory system, was possible only when the economic rationality, which already existed before capitalism, became dominant. The cottage industry was a system that took into account the interests of both the parties. For example, weaving was for the home worker a way of life regulated by traditions that were respected by the merchants themselves even though they were irrational from an economic point of view. The interest to rationalize the weaving, controlling the costs and making them predictable, was already present, but the fundamental change occurred when this rationalization was imposed on suppliers by merchants.

### *2.1.1 The division of labor*

In the eighteenth century, mankind ushered in the new industrial society, built on the solid basis of the bourgeoisie and the Enlightenment culture, which considered the reason as the only tool to know the truth and the only source of progress: the rationality had to cover all the spheres of human life.

Following Adam Smith's theories, work assumed a deep economic conception and it was defined as the nature of exchange between everything. The

industry, rather than agriculture, became the main source of wealth for the nation, with its machines and its fragmented labor. The new economic rationality, inspired to the Enlightenment principles, found its application in the introduction of the concept of division of labor: the partitioning of the economic functions within the society and of the operational tasks within the manufacture. According to the famous pins' example, a workman, with the traditional manufacturing method, working alone and personally taking care of the whole production process, would have produced just a pin per day or at most a few units; instead with the new method the process was separated into several parts with evident benefits: "One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business, to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them. I have seen a small manufactory of this kind where ten men only were employed, and where some of them consequently performed two or three distinct operations. [...] Those ten persons, therefore, could make among them upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, certainly, not the two hundred and fortieth, perhaps not the four thousand eight hundredth part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations." (Smith, 1776, pp. 3-4).

Moreover, always following the rationalistic spirit, work and its quantification using time became the absolute units of measurement for the exchangeable value of a commodity: "The value of any commodity, therefore, to the person who possesses it, and who means not to use or consume it himself, but to

exchange it for other commodities, is equal to the quantity of labour which it enables him to purchase or command. Labour, therefore, is the real measure of the exchangeable value of all commodities "(Smith, 1776, p. 20). The spirit of capitalism found, therefore, in the application of the extreme rationality the way to achieve its goals of profit: to adopt an indifferent and one-dimensional criterion for any consideration, taking for granted that everything could and should be measured, quantified and evaluated.

Charles Babbage, in the early nineteenth century, highlighted the technical benefit of the division of labor: the reduction of the learning time and of the wasted materials for training, the continuity of the production due to the abolition of the time required to move from one phase to another, the technical skills acquired through the repetition induced by specialization. Babbage represented the spirit of that period. On one hand, there was an attention to every factor that can improve the production system. On the other hand, the belief that "the division of labour can be applied with equal success to mental as to mechanical operations" (Babbage, 1832, p. 191) was the anticipation of the scientific management principles. In the industrial society the division of labor, even though it was a phenomenon that had always existed, eliminated the essential element that had always inspired the human activity, namely the process of human integration resulting from the interchange between products and professional skills (Andreoni, 2005).

### *2.1.2 Marx's critique*

Marx's (1844) theory of alienation is perhaps the most relevant analysis of the perception and of the treatment of workers within capitalist society. According to Marx, work (so no more the reason, the rationality or the thought) and the ability to make tools are the factors that differentiate human beings from animals. In fact, the use and the creation of work tools - although they are, in his view, partially shown in some animal species - characterize the human labor process. For Marx, then, man differs from animals as producer of its own means of subsistence (Marx, 1867). This concept of work refers to a crucial activity in the processes of socialization, as it confers a social identity to man and it belongs to the public activity. Work is the



praxis that, par excellence, regulates man's relationship with nature through the production. Human being, unlike animals, technically realizes the exchange with nature through the means of production. The relationship that human beings establish with things is thus mediated by the technical domain which results in the production of goods functional for the satisfaction of human needs (Marx, 1867). Nevertheless, if in the pre-bourgeois society, every product was used to satisfy human needs and had an utility for human being and its survival, in bourgeois economy the product became a commodity; what was produced is no longer aimed at the individual, but to the market and to the production of wealth (Marx, 1867). According to Galimberti (1999), Marx's concept of alienation is principally an upturning of the relationship between means and ends: the means and the products become independent from the ends, namely the needs. The means are thus enhanced and become absolute; the ends, that before were the consumption of the produced goods, become the production itself. The main goal of work is no longer the needs, but the product and its exchangeability with the aim of an increased acquisition of money. Money becomes the final scope of the entire process: the production of commodities is the mean to obtain a greater amount of money (Severino, 1989).

The value of the commodity is not determined by the labor time of the individual worker, but by the duration of "social" working dispensed to produce the commodity, as it is the result of the social division of labor. The commodity is like a fetish, it has a value in itself as if it has a magical force. For the effect of the commodity fetishism, the real relations of production, that determine the existence of the value, remain hidden and are transformed into a different nature: things are personified and people are reified (Marx, 1867). The commodity, in the capitalist system, has more value the more the man loses it. The man suffers from a gradual devaluation, which brings to the extreme consequence of the alienation of man towards what he produces. The product no longer belongs to the workman, but it is an entity that exists outside him, independent, alien to him and almost an enemy. "The laws of political economy express the estrangement of the worker in his object thus: the more the worker produces, the less he has to consume; the more values he creates, the more valueless, the more unworthy he becomes; the better formed his

product, the more deformed becomes the worker; the more civilized his object, the more barbarous becomes the worker; the more powerful labor becomes, the more powerless becomes the worker; the more ingenious labor becomes, the less ingenious becomes the worker and the more he becomes nature's bondsman." (Marx, 1844, p. 71).

Therefore, according to Marx, in a capitalistic society, work is not a free conscious activity through which man can manifest his humanity. Instead, it is an activity through which he is alienated, it represents an external imposition that deprives workers of their autonomy and of the product of their work. In this system, the product and worker's life itself become properties of the capitalist. Mankind is alienated because man loses his peculiar ability to transform nature on the basis of his own planning. Alienated work, thus, is a labor of self-sacrifice and mortification. Work is reduced to a means through which the capitalistic class can obtain profit. Under this system, workers inevitably lose control of their lives and cease to be perceived by others – and to perceive themselves – as beings defined by uniquely human qualities. Rather, they are exclusively judged on their capacity to produce wealth. Therefore, workers become mere commodities who are evaluated and perceived merely in terms of their productivity, rather than in terms of their humanity (Marx, 1844).

### *2.1.3 The Principles of Scientific Management*

Despite the critique of Marx, industrial society carried on along the path of mechanization following the *Principles of Scientific Management* of work (Taylor, 1911). Taylor analyzed in a systematic way the working procedures which would have allowed to achieve significant savings in time and movements. The production's machine, according to Taylor, should have been a great impersonal structure within which each participant, both an executive or an ordinary worker, had to perform precisely the task assigned to him/her. The organizer had essentially the task of splitting the production process in many simple and repeatable units, to calculate the average time for their execution and to provide the worker with a table containing the production goals and the timing of standardized task to be followed

scrupulously. There was a unique *one best way*: for any technical and organizational problem existed only one rational way for its optimal solution. This implied a careful study of the gestures with which the worker performed the task, its execution and pause times, and the subsequent standardization according to the cheapest procedure. The worker was then trained following the standardized instructions. This method not only defined what the worker had to do, but also how and in which way. Everything was programmed, standardized and implemented in order to increase production. This system eclipsed the professional figure of the craft's skilled worker, who held tenaciously the bonds with the tradition and the artisan wisdom, that dominated his work in every aspect and often intervened with his own inventiveness to improve the manufacturing (as he did at the dawn of the industrial revolution, when many technological innovations were the fruit of the workers' creativity). The skilled worker was even seen as a risk, an unpredictable alteration of the production process. According to Taylor, the best worker was therefore the *ox-like* worker, an employee who did only what is ordered, neither more nor less than what he was expected to do and who carried out his work on time following the planned ways. In the Taylorist logic, in fact, the lazy worker and the overzealous were on the same level because both violated the rule and hindered the scientific organization of work: "Now one of the very first requirements for a man who is fit to handle pig iron as a regular occupation is that he shall be so stupid and phlegmatic that the more nearly he resembles in his mental make-up the ox than any other type." (Taylor, 1911, p. 59).

Taylorism, understood as the rationalization of the production and the complete separation between operational phase (that is up to the workers) and the directive one (that is up to the manager), found its most complete realization in the assembly line. Work at the assembly line in fact reduced the worker to an appendage of the machine, assigned to a single task detached from the general context; in this sense, paradoxically, the worker could ignore the final production goal (if he realized cars or tanks), as long as he correctly performed his task in the given time. Ford wrote: "We now have two general principles in all operations—that a man shall never have to take more than one step, if possibly it can be avoided, and that no man

need ever stoop over. [...] The net result of the application of these principles is the reduction of the necessity for thought on the part of the worker and the reduction of his movements to a minimum. He does as nearly as possible only one thing with only one movement.” (Ford, 1922, p. 80). These changes produced some remarkable consequences for human work. The gesture lost its natural rhythm of execution to which the worker had to adapt, because it was the machine that determined the pace of work. Moreover given that it required a mechanical work, that was done through the physical effort assisted by machines, intellectual and creative sphere was no longer exerted and then disappeared quickly. The simple machines were replaced then with more complex and semiautomatic machines, with the result of eliminating almost completely the worker’s initiative, arriving to assign tasks that consisted only in the control of the machine. Since the required skills tended to be more and more reduced, every worker became a replaceable and interchangeable unit. Human relations, considered as potential bearers of resistance against the system, were banned from the system. Ford had also the idea to associate the exceptional productive powers of work in large series (assembly line, standardization, saving on production costs) to the expansion of the market, thus opening the way to the mass production. The depersonalized factory’s result was a standardized product that was good for all: the Model T (1913). High wages, access of lower classes to mass consumption, integration of the working class in the consumer society would have removed the risk of revolution, making the worker not only the manufacturer of goods for others, but also the main consumer of the same goods (Andreoni, 2005).

In the same period Lurton published "*Psychology and industrial efficiency*" (1913) in which he analyzed first the problem of work organization on psychological basis and thus traced the general lines of the so-called "*psychotechnics*". The *psychotechnics* did not question the foundations of the fragmented division of labor, but proposed to limit its psychophysical consequences following three directions, that clearly show the view of worker as a mere instrument of production: adapting the working methods, the working environment and the equipment, starting with the design of the machines up to the psychophysiology of the average performer; decomposing the working cycle in such short and

insignificant steps to make the execution unconscious and to allow the brain to take care of something else; selecting the performers in order to assign them to the most appropriate tasks according to their psycho-physical characteristics (Pedon & Maeran, 2002).

#### *2.1.4 Twentieth-century's critiques*

According to Gramsci, Taylor is “expressing with brutal cynicism the purpose of American society — developing in the worker to the highest degree automatic and mechanical attitudes, breaking up the old psycho-physical nexus of qualified professional work, which demands a certain active participation of intelligence, fantasy and initiative on the part of the worker, and reducing productive operations exclusively to the mechanical, physical aspect [...] One should study the "puritanical" initiative of American industrialists like Ford. It is certain that they are not concerned with the "humanity" or the "spirituality" of the worker, which are immediately smashed. This "humanity and spirituality" cannot be realised except in the world of production and work and in productive "creation". They exist most in the artisan, in the "demiurge", when the worker's personality was reflected whole in the object created and when the link between art and labor was still very strong. But it is precisely against this "humanism" that the new industrialism is fighting. "Puritanical" initiatives simply have the purpose of preserving, outside of work, a certain psycho-physical equilibrium which prevents the physiological collapse of the worker, exhausted by the new method of production. This equilibrium can only be something purely external and mechanical, but it can become internalised if it is proposed by the worker himself, and not imposed from the outside, if it is proposed by a new form of society, with appropriate and original methods.” (Gramsci, 1934, pp. 290-291).

Despite some enlightened analyses and initiatives, conducted by, for examples, Mayo, Olivetti or Musatti, tried to improve the factory situations considering the human dimension, the increased complexity and specialization of the social and productive system, during the second half of the century, profoundly changed the meaning of work for both the office and the factory workers. Subordinate work

increasingly fragmented and was reduced to a series of repetitive tasks, which distanced the worker from the entire process and abandoned him in a such a condition of alienation to make him feel the work as something hostile. This alienated condition struck both the white collar middle class and the working class assigned to the assembly line, generating a widespread disaffection towards work and a radical critique in the name of a more authentic life. According to Fromm, “Vastly centralized enterprises with a radical division of labor lead to an organization of work where individual loses his individuality, where he becomes an expendable cog in the machine. The human problem of modern capitalism can be formulated in this way: modern capitalism needs men who co-operate smoothly, and in large number; who want to consume more and more; and whose tastes are standardized and can be easily influenced and anticipated. It needs men who feel free and independent, not subject to any authority or principle or conscience – yet willing to be commended, to do what it is expected of them, to fit into the social machine without friction; who can be guided without force, led without leaders, prompted without aim- except the one to make good, to be on the move, to function, to go ahead. What is the outcome? Modern man is alienated from himself, from his fellow men, and from nature. He has been transformed into a commodity, experiences his life forces as an investment which must bring him the maximum profit obtainable under existing market conditions. Human relations are essentially those of alienated automatons, each basing his security on staying close to the herd, and not being different in thought, feeling or action. While everybody tries to be as close as possible to the rest, everybody remains utterly alone, pervaded by the deep sense of insecurity, anxiety and guilt which always results when human separateness cannot be overcome.” (Fromm, 1956, pp. 85-86). In the essay “*Is man lazy by nature?*” (1974), Fromm argued that “the worker today serves the machine; he requires very limited skill. Even the skilled worker cannot be compared with the one having the skill of an artisan” (p. 115). Thus, according to Fromm’s view, the modern worker, compared to the artisan, is more like a specialized tool than a human being with his own talent. The modern worker performs a small number of movements and at the assembly line he is a prisoner of the rhythm of conveyor belt. As a person, he is not enriched by the

work process, but he is crippled by it, since none of his faculties has the possibility to be cultivated and to grow (Fromm, 1974).

According to Blauner (1964), with the increase of the complexity and the specialization of social and productive system, subordinate work became more fragmented, repetitive and other-directed, and worker was pushed away by the meaning of its job. Following Marx's assumptions, the author analysed the causes of the use of workers as objects. Blauner highlighted that the performance of fragmented, repetitive and other-directed tasks is a source of alienation that involves different aspects, including powerlessness, meaninglessness, isolation and self-estrangement. Powerlessness arises when an individual is other-directed and controlled by other people or by an impersonal system as well as when he cannot impose himself as an active subject of change. Furthermore, workers who perform highly fragmented and repetitive activities know how to perform a limited number of tasks without knowing how they are integrated with those of other workers. The outcome is the isolation of the individual, loss of meaning and decline of capacity to act intelligently. In this sense, alienation involves a transformation of the person into a self-estranged entity without power and agency. That is, the individual is merely an object. Therefore, the rationality of technology and of work organization, that did not allow the active intervention of workers, increased the alienating tendencies of industrial work that make it more likely that the worker is treated as a thing and not as a person. According to the author, the opposite of alienation is freedom, the ability to understand and control one's own work, being able to perceive it as rewarding and as a source of personal identification.

In the same period, Hannah Arendt posed relevant considerations concerning human work activity. In particular, in *The Human Condition* (1958), she distinguished the *homo faber* from the *animal laborans*. According to her, the *homo faber* is the artisan – a manual laborer who fulfills his full humanity through his work. He produces a huge variety of human products through work activities that imply creative thinking. Conversely, the *animal laborans* is the slave during ancient Rome, the *minus habens* of the Medieval, the factory worker during the industrial revolution, and the contemporary mass worker. He is a mere operator who does not

require specific skills; he merely has to perform endless and fragmented tasks that are summed up with those of other individuals. Arendt argued that the industrial system has contributed to the definitive victory of the *animal laborans* – the passive entity whose agency and autonomy are neglected – on the *homo faber*. In this victory mankind lost human experience, creativity, individuality and freedom of action (Arendt, 1958).

#### 2.1.5 *Recent years and the temporary job*

During the second half of the seventies the multinational corporations suffered from a major setback. The strategy adopted was then to reduce the production costs and the companies invested in technology, particularly in the computerization both of the administrative and the industrial productive side. The massive introduction of computers, automation and robotics among the 80s and the 90s redesigned the organizational apparatus of the capitalist enterprises. The western managers effected a drastic cut of job places and transferred out many of the tasks formerly performed by the employees of the companies. The industrial landscapes disappeared gradually from the rich and developed world to move to the countries where the labor cost was lower. This choice allowed greater flexibility and cost reduction, however at the same time it caused a sharp increase in unemployment.

Work thus takes a new form and becomes more and more dependent on techniques that have an all-encompassing role. In this kind of work, human superior faculties are definitely no more necessary. According to Galimberti (1999) the techniques had already objectified, in the machine, the performance of the executive organs, hands and feet, and that of sensorial organs, that is ears and eyes. Now the techniques have arrived to objectify even the control organ, the human brain. In this context, while the technique assigns to the workers only no-aimed jobs that do not allow the perception of a final aim and of the deep meaning of work, the dedication to work is absolutely guaranteed: the same occupation, even if it is meaningless, is still satisfying and so reasonable as a safeguard from the even more frightening lack of sense that unemployment entails. There is indeed a sort of paradox in the society founded on work: now that work is perceived as the highest expression of man, it is



disappearing from our lives. Aznar denounces this mutation: society will arrive to produce wealth without work, or almost. The problem of unemployment affects the current societies and raised as a direct result of the technological development that makes unnecessary a lot of work and involves a massive elimination of job places without creating others (Aznar, 1993).

Andreoni interestingly analyses two further phenomena caused by the technological progress. The first is the apparent job: man works without working, he controls the machine's work and spends the day waiting for something to happen. Today, man is definitely transformed and reduced to an automaton, clerk at the operation of the techniques. He was the subject of production, able to exercise dominion and autonomy of his action from the beginning to the end of production, and now he becomes a simple passive servant of the production process governed by the economic rationality (Andreoni, 2005). The other phenomenon is the temporary job. Contemporary society conceives work as characterized by a permanent contract that is deeply interiorized in the mass representation of work. However the main instrument of the current production needs is the temporary contract. According to Andreoni, the temporary worker becomes a mere tool, an object occasionally useful for the production. It is usable when companies need it, and it can be eliminated when opportunities are lacking. The fact that it is a man or an object is secondary: worker is called indeed human resource or human capital. These two expressions suggest that persons are things: quantifiable entities who have lost the dignity of being identified as people with their own subjectivity, creativity, passion, desires, motivations and pain. The temporary worker enters a company which happened to be in need of an individual, he is forced to produce random and temporary relationships and he performs tasks that require a whichever worker and not a specific person or expertise. A temporary worker can be replaced, he has become a reproducible resource. The consequence is a substantial change in the concept of work. Work is freed from man. Man is interchangeable according to the technological requirements which gradually emerge. The worker is flexible, adaptable, changeable, precarious and reviving as a thing (Andreoni, 2005).

The development of precarious work has reduced the protests of workers who

fear losing their job security and the unity of working class has dissolved. According to Favilli (2001) there is no longer the working class but there are only workers. The blue-collar workers look disappeared from the social scene and become less and less recognizable actors of contemporary society. The current laboring class is increasingly made up of isolated and mechanized individuals, subjugated increasingly by the intensification of work and who seem to have given up collective action (Beaud & Pialoux, 1999, cit. in Chicchi, 2003). What is disappearing is the typical figure of fordist mass-worker and not its social existence. The factory worker and the blue-collar work thus continue to have an important productive function even in the post-Fordist era (Chicchi, 2003). The financial crisis of 2007- 2008 has caused a further decrease of job places introducing more precariousness and increasing job insecurity. However, in spite of the critical changes related to the technological progress, that lead to different contract types and to worsening insecurity working situation, most of the critical work factors such as the repetitive, machine-like movements and the total dependence on machines, are not disappeared but still characterize the modern industrial work (Hodson & Sullivan, 2012)

## ***2.2 Social psychological research and working objectification***

The above analysis shows that work can transform man in an interchangeable thing, an appendage of the machine, an instrument of the production: man is objectified by his own work. Work emerges as a source of objectification in two main ways: the organizational setting of repetitive, standardized and also precarious activities transforms worker into an object because he is not allowed to exert his highest human faculties and further the same organizational setting leads worker to be seen and treated by others, superiors or the general society, as a mere tool, suffering thus from an *objectifying gaze*. In this scenery, it appears clear that workers, as well as the women in sexual objectification, live in objectification “the way fish live in water” (MacKinnon, 1989, p. 124).

As explained before, objectification is a form of dehumanization that refers to the perception (and the treatment) of others as objects. It involves a sort of fragmented perception of the objectified target, which is “split into parts that serve

specific goals and functions for the observer” (Gruenfeld, Inesi, Magee, & Galinski, 2008, p. 111; see also Bartky, 1990; Frederickson & Roberts, 1997; Nussbaum, 1999). Nussbaum herself in the essay on *Objectification* (1995) speculated about the different components that characterize the object-like treatment of workers in the modern capitalistic society. In her analysis, the lack of autonomy (i.e., their behaviors are largely hetero-directed), the denial of subjectivity (i.e., their feelings and experiences are not a concern), the fungibility (i.e., they are interchangeable with other able-bodied workers and at times with machines) and the instrumentality (i.e., they are viewed as tools for production purposes) are important components of workers’ objectification.

Although theoretical analyses emphasize how this form of dehumanization is extremely pervasive in work domain, psychosocial scholars only recently became interested in this phenomenon. This is surprising given that the perception of being seen in a negative way, that is to be stigmatized, had generally negative outcomes on the self (Dovidio, Major, & Crocker, 2000; Goffman, 1963) and in these processes occupational stigmas can be particularly dangerous (Kreiner, Ashfort, & Sluss, 2006). In fact, for the construction of the identity it is important what others think about us (Cooley, 1902) and job is one of the most useful aspect to present oneself and on which people base what they think (Ashforth, 2001). Further, while other kinds of stigmas and stereotypes are seen as inevitable, as that relative to race or disability, occupational stigmas are perceived as controllable (Dovidio et al., 2000). It is assumed that individuals choose their jobs and so they are responsible for having chosen a stigmatized work (Crandall, 2000). Moreover the perceptions and the culturally shared images of disadvantaged group members often contribute to transforming the extant inequalities into a “natural process” rather than a social construction (see Becker, Kraus, & Rheinschmidt-Same, 2017; Swencionis, Dupree, & Fiske, 2017). In particular, the negative stereotypes and dehumanizing images associated with low-status workers can be relevant means for perpetuating social disparities within a given society. The functions of stereotype and dehumanization are indeed mainly two: justifying intergroup violence and exploitation and legitimizing the group’s status quo (Bar-Tal, 1989; Tajfel, 1981; Volpato &

Andrighetto, 2015). Given the dangerous implications of these negative representations, it is crucial to understand how workers are perceived and how workers react to these shared perceptions.

Supporting the above theoretical analysis, a number of studies clearly highlight the negative content of stereotypes associated with blue-collar workers - usually seen as unintelligent, lazy, incompetent - and the consistency of these representations along history and across culture (e.g. Asbrock, 2010; Davidson, Riesman, & Meyers; 1962; Durante, 2008; Fiske & Dupree, 2014; London & Winkert, 1965; Stagner, 1950; Štambuk, 2003; Tajfel, 1981; Theilbar & Feldman, 1969; for a review see Volpato, Andrighetto, & Baldissarri, 2017). These negative representations emerge also in the mass media that contributes to shape negative stereotypes about workers. For example, in her documentary, Alper (2005) observed that within the US context, blue-collar workers are often stigmatized through media portrayals that present them as uneducated, inarticulate, and drunk. Further, Callier (2014), through a discourse analysis of a corpus of US television advertisements for a popular car brand, reported a massive presence of stereotypical images that were used to represent the class differences between blue and white-collar workers.

However, the proposed analysis of work clearly indicates that such images are not confined to “mere” stereotypes but also involve dehumanized representations. For example, Jones (2012) observes that in UK the caricature of chavs is often used to represent low-status-people or working class as sub-human and feral beings. A similar image emerges in the US context, where the white low-class people are derogated with the slur of white trash that portrays them as primitive and atavistic human beings (Wray, 2006; see also Spencer & Castano, 2007), or in the Australian context, where the lower working classes are often labeled as bogans and categorized as “amoebic plebs” or “subnormal apes” (Nichols, 2011). Starting from these observations, Loughnan, Haslam, Sutton and Spencer (2014) conducted a series of questionnaire studies that explored whether in UK, US and Australia people of low-socio economic status would be dehumanized through a similar animalistic fashion. They found that the social perceptions toward the chavs, the white trash and the bogans were remarkably similar in content. Despite their different national settings,

each group was indeed seen as relatively ape-like, lacking the characteristics that are unique to humans.

While the above research highlights the shared social dehumanized perceptions of blue-collar workers, others focus, instead, more on the dehumanizing treatment in the workplace setting. Indeed, different researches analyze the dangerous presence of dehumanizing behaviors and attitudes in the organizational practices. These works highlight that dehumanizing behaviors (for example the treatment of people only as resources to be allocated to projects or the impossibility for employees to express their own opinions) are daily procedures. Dehumanization is merely a learned habit and a way of thinking rooted in everyday practices and is seen as how things have always been done and how everybody in the field does it, as the only functional way to behave in organizational setting. This makes dehumanization invisible in management theory and practice, and hence, such forms of dehumanization are very difficult to change (e.g. Christoff, 2014; Vayrynen & Laari-Salmela, 2015). Interestingly, some studies analyze the causal effect of hierarchical relationship on the attribution of humanness to others. For example, Gwinn, Judd and Park (2013) found that participants assigned to a high-power manager role dehumanized low-power assistant participants, attributing less human uniqueness traits. Moreover, people occupying powerless positions tend to internalize their inferior position, in terms of a diminished self-attribution of humanity. For example, Yang, Jin, He, Fan and Zhu (2015) found that people in powerless positions internalize their inferiority by perceiving themselves as less human than their powerful perceivers.

Even though these studies do not explicitly refer to objectification, they provide first evidence related to the dimension of the denial of humanness, showing that organizational relationship can lead to a reduction in the attribution of human dimensions. However, the particular form and process of objectification, considering its two cardinal aspects of denial of humanness but also and mainly of instrumentality, is the most suitable and functional explanation of why and when workers are spoiled of their humanity. Work leads to see man not as a human being but as a cog of production, a mere useful tool for others' purposes.

A first set of studies conducted by Gruenfeld and colleagues (2008; see also Landau, Sullivan, Keefer, Rothschild, & Osman, 2012) analyzed other-objectification within hierarchical working relationships by focusing on the dimension of instrumentality. Across six studies, they consistently found that in hierarchical working settings participants in high power positions – compared with those in low power positions or in baseline conditions – systematically objectified their work partner by seeing him as a mere instrument to the attainment of their own purposes. Interestingly some studies found that deliberating on social targets’ instrumentality for attaining one’s own personal goals is negatively related to the attribution of humanness to these targets (Zhang, Chan, & Cao, 2014). Similar results on this relationship between instrumentality and attribution of humanness, were found by Harris and colleagues. Using neuroimaging techniques, they found that purchasing and assigning economic value to people, so viewing them as commodities, results in a dehumanized brain response, that is reduced activity in brain networks related to social cognition (medial prefrontal cortex; Harris, Lee, Capestany, & Cohen, 2014). The two dimensions of objectification are so strictly related in the work domain.

In parallel with these first studies that focused on other-objectification, another important line of research analyzed the self-objectification of workers related to the perception of being instrumentalized. Indeed, as afore-mentioned, workers are subjected to a sort of *objectifying gaze* that leads the objectified targets to internalize the observer's perspective and, consequently, to objectify themselves. Evidence of the fact that workers perceive this dangerous *objectifying gaze* is provided for example by a qualitative study of Fisk and Neville (2011) that showed how waitstaff employees feel to be objectified. In particular, the interviewed front-line service workers reported to be treated as toys, objects, or instruments used for fulfilling the customer’s needs. A cross-sectional study (Baldissarri, Andrighetto, & Volpato, 2014) analysed how these perceived treatment can be interiorized, by involving a sample of employees from a full-service supermarket. The findings of this study showed that the perceptions of being viewed and treated as instruments by their superiors led workers to internalize this objectifying gaze and to objectify

themselves, i.e., perceiving themselves as lacking human mental states. The relation between the perception of being viewed as instrument by one's own superior and self-objectification was mediated by increased burnout. This latter result suggests that self-objectification is an adaptive mechanism that workers unconsciously enact to accord with their superiors' expectations and that allows them to face the negative mood evoked by their subordinate position. The relationship between the perception of being objectified and self-objectification has been confirmed by Auzoult and Personnaz (2016) that, in a research involving different kinds of employees (e.g. civil service, industry, trade/service), consistently found that the more the participants feel objectified by their boss/colleagues, on different dimensions related to the instrumentality and the denial of humanness, the more they have the tendency to self-objectify.

### **3. The research question and the present project**

This first set of studies is particularly relevant as they, for the first time, attempt to empirically relate objectification to the workplaces. Further, they shed some light on the motivational component of objectification in working settings: when powerful people need powerless people to achieve their purposes, they are particularly motivated to objectify them and to approach them in an instrumental way. This objectifying treatment is then internalized and workers self-objectify.

However, objectification is a complex phenomenon and may emerge in the absence of asymmetrical power relations between the perceiver and the target. In particular, starting from the mentioned theoretical analyses that pointed out how an individual that works following the rhythm of production, doing repetitive and fragmented gestures becomes a mere interchangeable tool, we focus on the factory workers situation and on the critical factors that characterize their activity, assuming that the activity itself could lead to objectification. In other words, we sought to demonstrate that the work activities that an individual performs in certain workplaces represent per se an important cognitive source of laypeople's objectified perceptions towards the worker and, furthermore, of objectified self-perceptions of the same individuals who perform it.

Therefore, in the present research we will focus on the effect of the specific performed activities on working objectification, analyzing both other and self-objectification. Throughout the research, we examined objectification considering the two main dimensions that compose it: the denial of humanness and instrumentality. In particular the denial of humanness was operationalized by considering the attribution of mental states that define human beings (Haslam et al., 2008; Holland & Haslam, 2013; Loughnan et al., 2010), a measure used in previous research on objectification. As for instrumentality, we created an ad-hoc measure that rates explicitly the degree of the perception of the others (and of the self) as human-like vs. instrument-like.

In particular, in different laboratory studies, we aimed to verify if the execution of an activity characterized by repetitiveness, fragmentation and other-direction leads laypeople to see the worker as more similar to an instrument than a human being and to attribute to him less human mental states (Chapter 2). Afterwards, we analyzed if performing an activity with the same features leads the performer himself to self-objectify, that is to self-perceive as more similar to an instrument than a human being and to self-attribute less human mental states. Furthermore, starting from different theoretical analysis, we considered a possible consequence of self-objectification: the reduction of belief in personal free will, a crucial individual variable related to the perception of being fully human (Chapter 3). Finally, we replicated the findings on self-objectification in two field studies, in which we considered, beyond the two already studied sources of objectification (i.e. the performed activity and the perception of being objectified by others), the perceived job insecurity. Furthermore, in the last study we introduce another possible consequence of self-objectification that is the reduction of personal well-being (Chapter 4).

In each chapter, the theoretical assumption underlining our hypothesis and the specific method that we employed to verify them will be exposed together with the underlying and general goal of demonstrating that objectification of workers can be embodied in the work itself and can have detrimental consequence on the worker's self-perception.



## CHAPTER TWO

### OBJECTIFICATION AT WORK:

### THE EFFECT OF WORK ACTIVITIES ON OTHER-OBJECTIFICATION

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## 1. Introduction

As discussed in Chapter 1, the object-like treatment of individuals in the workplace became a greatly debated issue with the advent of capitalism and the industrial system. Since then, several economists and philosophers have reflected upon this phenomenon. For example, Marx (1844) claimed that under capitalism, workers are deprived of the “truly human” essence of their work. In Marx’s view, the ultimate goal of the capitalist model is to produce wealth, and factory workers are the essential instruments in the creation of this wealth. Thus, they become “specialised tools” (Fromm, 1974) that are exclusively judged (and valued) on the basis of their efficiency and productivity, while their human qualities are devalued. Furthermore, the sociologist Blauner (1964) analysed the specific aspects of the assembly line that may exacerbate the alienation of factory workers and the treatment of them as things. In particular, Blauner emphasised that the performance of fragmented and repetitive tasks was a major source of alienation; repetitively performing only fragments of the production process and never seeing the full product of one’s labor would increase feelings of powerlessness and dehumanisation. Further, from Blauner’s perspective, the objectification of factory workers is also exacerbated by isolation from others and the corresponding complete dependence on the machine. In her analysis of different facets of objectification, Nussbaum (1995) also refers to objectification within the modern industrial society and speculates about the crucial dimensions that define objectification of factory workers. Instrumentality (i.e., the view of workers as mere tools for producing wealth) is absolutely crucial from her perspective, as the view of workers as mindless entities that, for instance, lack the capacity to make decisions or to feel human emotions. Arendt (1958) extends these arguments in the *Human Condition* by drawing a core distinction between the figure of *animal laborans* and that of *homo faber*. In Arendt’s view, the *animal laborans* is a mindless entity; her/his job consists of repetitive movements that do not involve intentional actions and that require relatively little human skill. In contrast, the *homo faber*, of which the artisan is a typical example, is characterised by her/his ability and inclination to “make things”, and he/she has an active and aware role during work activities.

Recently, Gruenfeld and colleagues (2008) analysed objectification in hierarchical working relationships. As exposed in Chapter 1, they consistently found that power positions alter the ways subordinate social targets are perceived: participants in high power positions – compared with those in low power positions or in baseline conditions – perceived their subordinates as mere instruments that were valued on the basis of their usefulness to achieve a goal, regardless of their values and human qualities. Gruenfeld and colleagues' (2008) work represents a relevant contribution to the objectification literature because it is the first attempt to empirically relate this phenomenon to the workplaces. Further, it highlights the motivational underpinnings of objectification in work settings. Powerful people are particularly inclined to objectify others as instrumental tools when they need them to achieve their purposes.

However, despite the relevance of these findings, objectification at work could depend not only on motivational forces. That is, we argue that it could arise also in the absence of personal gain and of asymmetrical power relations between the perceiver and the target. In particular, the main goal of the present studies is to demonstrate that objectification of workers is embodied in the work itself. More clearly, we aim at showing that the work activities that an individual performs in certain workplaces might represent per se an important cognitive source of laypeople's objectified perceptions toward the worker. We particularly assumed that three of the core features characterising the factory work activities – repetitiveness of movements, fragmentation of activities, dependence on the machine (Blauner, 1964) – would lead to an objectified view of the worker. Indeed, we hypothesized that making salient the highly repetitive, fragmented and machine-dependent nature of the factory work might activate a view of the worker as non-human actor, which would be perceived as more instrument- than human-like and as less able to experience human mental states.

## **2. Overview of the studies**

Our hypotheses were tested across three studies. In all studies, participants were undergraduates at a large Italian university located in Lombardia, one of the

first and most industrialized Italian regions (ISTAT, 2015). Study 1 was implemented to provide a first evidence of our hypotheses, by testing the separate impact of the key features characterising the factory work on objectification. In this study, participants were presented with vignettes describing a factory worker's daily life, in which the salience (vs. absence) of each key feature was manipulated. Study 2 and 3 employed more complex stimulus materials (i.e., video clips) than text vignettes. More importantly, these studies were designed to provide a more stringent test of our hypotheses, by verifying whether the link between work activities and objectification would be specific for factory work and not emerge for other manual labours, and particularly for the artisanal work.

### **3. Study 1**

The purpose of this study was to test the separate roles of three specific characteristics of factory work (Blauener, 1964) in determining objectification of workers: the high degree of repetitiveness of movements, the high degree of fragmentation of activities and the worker's total dependence on the machine. In this study, participants were exposed to different vignettes describing a peer employed in a factory. Depending on the experimental condition, the presence of each feature in the target's daily work was manipulated. After participants read the description, their instrument-like perceptions (vs. human being perceptions) and attributions of human mental states to the target were assessed. Consistent with our hypotheses, we expected that the presence (vs. the absence) of each feature would increase participants' objectifying perceptions towards the target, leading to a view of him as instrument-like (vs. a human being) and as less able to experience human mental states.

#### **3.1 Method**

##### *3.1.1 Participants.*

One hundred twenty-six psychology students (108 females) participated in the study in exchange for partial course credit. The participants' ages ranged from 18

to 39 years ( $M = 22.49$ ,  $SD = 3.12$ ). Ten participants reported having at least one parent who was employed as factory worker<sup>1</sup>.

### 3.1.2 Procedure and materials.

The experiment was administered on-line and it was introduced as a task involving “impression formation.” A 3 (work feature type: repetitiveness vs. fragmentation vs. dependence on the machine)  $\times$  2 (work feature manipulation: present vs. absent) between-subjects design was used in which participants were randomly assigned to read one of six vignettes describing a worker named Marco. After reading the description, all of the participants completed a questionnaire using the scales described below. Finally, participants were asked for their demographic information, thanked and debriefed.

*Descriptions.* The six vignettes resulted from manipulating the presence or absence of the three features. The vignettes were controlled across conditions in terms of the form and the amount of the information conveyed. In all conditions, the target was introduced with a picture that was presented in the upper left of the screen. All participants first read:

“Marco is thirty, lives in Milan and has two brothers. In the evening, he usually goes out with friends. He works eight hours a day as a factory worker.”

The two subsequent sentences varied depending on the experimental conditions. For example, for the work feature of repetitiveness, they read as follows (with the absent condition in brackets):

“His work is repetitive and monotonous. He performs the same action about ten times in five minutes. [His work is not repetitive and monotonous. He performs different activities over the course of the day.]”

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<sup>1</sup> In all studies, the low number of participants with a working class background (i.e., with at least one parent employed as a factory worker) did not allow us to reliably control for this variable.

*Measures of instrumentality and humanness.* Perceptions of the target as instrument-like or as a human being were measured using five instrument-related words (*instrument, device, tool, thing, machine*) and five human-related words (*human being, person, individual, subject, guy*) borrowed from previous works (e.g., Capozza, Andrighetto, Di Bernardo, & Falvo, 2012; Rudman & Mescher, 2012). Participants were asked to rate the extent to which the target called to mind each of these words (1 = *not at all*; 7 = *extremely*). The instrument-related words ( $\alpha = .92$ ) and the human-related words ( $\alpha = .84$ ) were combined so that higher scores indicated stronger perceptions of the target as instrument-like and as a human being, respectively.

*MSA.* The participants' mental attributions towards the target were measured through the Mental State Attribution task (MSA; Haslam, Kashima, Loughnan, Shi, & Suitner, 2008; see also Holland & Haslam, 2013). The MSA required participants to rate the extent to which the target experienced 20 mental states ( $\alpha = .92$ ) pertaining to perceptions (e.g., hearing and seeing), emotions (e.g., fear and pleasure), thoughts (e.g., thinking and reason) and intentions (e.g., plans and wishes). A principal component factor analysis showed that all the items loaded on the first principal component (loadings: .45-.76). The items were rated on a 7-point scale (1 = *not at all*; 7 = *very much*).

### **3.2 Results and discussion**

We performed a series of 3 (work feature type: repetitiveness vs. fragmentation vs. dependence on the machine)  $\times$  2 (work feature manipulation: present vs. absent) ANOVAs on the dependent variables.

Regarding the perceptions of instrumentality, the results revealed the expected main effect of work feature manipulation,  $F(1,120) = 25.63$ ,  $p < .001$ ,  $\eta_p^2 = .18$ : participants who read the vignettes in which the work features were present perceived the target more as an instrument ( $M = 3.10$ ,  $SD = 1.64$ ) than did participants who read the vignettes in which the work features were absent ( $M = 1.81$ ,  $SD = 1.13$ ). The effect of work feature type was not significant,  $F(1,120) = 0.49$ ,  $p = .61$ , like so the two-way interaction Work feature type  $\times$  Work feature

manipulation,  $F(1,120) = 1.06$   $p = .35$ , which suggests that the presence (vs. the absence) of the three features operated similarly to increase perceptions of instrumentality. Pairwise comparisons with Bonferroni adjusted alpha-levels confirmed that the presence (vs. absence) of repetitiveness,  $F(1,120) = 16.37$ ,  $p < .001$ ,  $\eta_p^2 = .12$ , fragmentation,  $F(1,120) = 3.82$ ,  $p = .05$ ,  $\eta_p^2 = .03$ , and dependence on the machine,  $F(1,120) = 7.79$   $p = .006$ ,  $\eta_p^2 = .06$ , in the target's work had each a significant impact on perceptions of instrumentality (see Table 1).

*Table 1. Mean ratings of instrumentality perceptions, humanness perceptions and mental states attributions to the target as a function of work feature type and work feature manipulation.*

	Repetitiveness		Fragmentation		Dependence	
	Present	Absent	Present	Absent	Present	Absent
Instrumentality						
<i>M</i>	3.49 <sub>a</sub>	1.71 <sub>b</sub>	2.90 <sub>a</sub>	2.02 <sub>b</sub>	2.90 <sub>a</sub>	1.70 <sub>b</sub>
<i>SD</i>	1.85	1.06	1.54	1.41	1.52	0.91
Humanness						
<i>M</i>	5.55 <sub>a</sub>	6.40 <sub>b</sub>	5.62 <sub>a</sub>	6.53 <sub>b</sub>	5.56 <sub>a</sub>	6.14 <sub>b</sub>
<i>SD</i>	1.38	0.74	1.16	0.56	0.99	0.77
MSA						
<i>M</i>	4.46 <sub>a</sub>	4.98 <sub>b</sub>	4.22 <sub>a</sub>	4.90 <sub>b</sub>	4.24 <sub>a</sub>	4.83 <sub>b</sub>
<i>SD</i>	0.83	0.92	0.54	0.80	0.56	0.83

*Note.* Means with different subscripts in the same row and within repetitiveness, fragmentation or dependence differ significantly,  $p \leq .05$ . MSA = Mental states attributions

Similarly, the work feature manipulation significantly affected the participants' perceptions of the target's humanness,  $F(1,120) = 19.73$ ,  $p < .001$ ,  $\eta_p^2 = .14$ . Participants who were assigned to the conditions in which the work features were present perceived the worker as less human ( $M = 5.58$ ,  $SD = 1.17$ ) than did participants who were assigned to the conditions in which the same features were absent ( $M = 6.35$ ,  $SD = 0.71$ ). In contrast, neither the main effect of work feature

type,  $F(1,120) = 0.54$ ,  $p = .59$ , nor the two-way interaction Work feature type  $\times$  Work feature manipulation,  $F(1,120) = .34$ ,  $p = .71$ , significantly affected the perceptions of humanness. Consistent with our hypotheses, pairwise comparisons with Bonferroni adjusted alpha-levels revealed that the presence (vs. absence) of each of the work features significantly decreased perceptions of humanness:  $F(1,120) = 7.78$ ,  $p = .006$ ,  $\eta_p^2 = .06$  for repetitiveness,  $F(1,120) = 8.60$ ,  $p = .004$ ,  $\eta_p^2 = .07$  for fragmentation,  $F(1,120) = 3.80$ ,  $p = .05$ ,  $\eta_p^2 = .03$  for dependence on the machine (see Table 1).

Similar results were found with regard to the MSA. Work feature manipulation significantly impacted the participants' mental attributions towards the target,  $F(1,120) = 19.72$ ,  $p < .001$ ,  $\eta_p^2 = .14$ . Participants who were assigned to the vignettes in which the work features were present attributed fewer mental states to the target ( $M = 4.30$ ,  $SD = 0.66$ ) than did participants who were assigned to the vignettes in which the work features were absent ( $M = 4.90$ ,  $SD = 0.84$ ). In contrast, neither the work feature type,  $F(1,120) = 0.77$ ,  $p = .47$ , nor the interactions of Work feature type  $\times$  Work feature manipulation,  $F(1,120) = 0.11$ ,  $p = .89$ , were significant, suggesting that the presence of the three features had similar impacts on mental attributions. Confirming this assumption, pairwise comparisons with Bonferroni adjusted alpha-levels showed that the presence (vs. absence) of repetitiveness,  $F(1,120) = 5.07$ ,  $p = .03$ ,  $\eta_p^2 = .04$ , fragmentation,  $F(1,120) = 8.20$ ,  $p = .005$ ,  $\eta_p^2 = .06$ , and dependence on machine,  $F(1,120) = 6.61$ ,  $p = .01$ ,  $\eta_p^2 = .05$ , in the target's work decreased the participants' attributions of mental states to the target (see Table 1).

The present study provides first support for our hypotheses. By relying on text vignettes describing a peer employed in a factory work, we found that the core features of the factory work operate independently and similarly to shape an objectified view of the target. In other words, simply describing the target's work as highly repetitive, highly fragmented or highly dependent on the machine increased the participants' perceptions of the target as instrument (vs. a human being) and decreased the attributions of human mental states to him.



## **4. Study 2**

Study 2 was designed to extend the ideas and findings of Study 1 while incorporating some methodological improvements. First, we employed more complex and meaningful stimuli (i.e., video clips), in which the key factory work features were made salient together. More importantly, we aimed at verifying the specificity of the link between factory work activities and objectification, which we expect would not emerge for other type of manual work activities. In so doing, we manipulated the type of work by exposing participants to a video clip showing a factory worker or an artisan. This latter was selected as comparison condition because like factory workers, artisans perform manual labour. However, as Arendt (1958) argues, artisans' labour should be typically perceived as less repetitive, less fragmented and less time constrained than factory work. Adapting the Heflick and colleagues' paradigm (2009, 2012), we also manipulated the participants' attentional focus while viewing the video clip. Depending on the experimental condition, participants were prompted to focus on the activities the person in the video performed (work focus condition) or on the person in the video clip (person focus condition). We indeed reasoned that if our hypothesis that only the factory worker activities lead to objectification is correct, then focusing on the more repetitive, fragmented and dependent activities that the factory worker performs (vs. the factory worker as a person) would promote objectification, by increasing perceptions of the targets' instrumentality and decreasing perceptions of their humanness. Instead, focusing on the work activities that the artisan performs (vs. the artisan as a person) would not activate objectifying perceptions, as the features of this work would not convey an objectified view of the target.

### **4.1 Method**

#### *4.1.1 Participants.*

Sixty-three undergraduates (47 females) participated in the study in exchange for partial course credit. Seven participants had at least one parent who was

employed as a factory worker. The participants' ages ranged from 19 to 47 years ( $M = 23.81$ ,  $SD = 5.46$ ).

#### 4.1.2 Procedure and materials.

Participants were individually examined under experimenter supervision. The experiment was introduced as a task involving “impression formation.” A 2 (target: factory worker vs. artisan)  $\times$  2 (focus: work vs. person) between-subjects design was used in which participants were randomly assigned to the experimental conditions. The target was manipulated by assigning participants to view one of two video clips: one depicting the factory worker (factory worker condition) and the other depicting the artisan (artisan condition). To manipulate the focus, participants were told before they watched the video either to focus on the target shown in the clip (person focus condition) or on the work that the target performed (work focus condition). After participants viewed the video, they completed a manipulation-check item and a measure assessing the perception of the target as instrument-like and as a human being. Finally, participants were asked for their demographic information, thanked and fully debriefed.

*Videos.* The two clips (see Figure 1), which were downloaded from freely available online sources<sup>2</sup>, were 1 min and 56 s-long videos depicting two non-famous male individuals performing their daily work activities. The factory worker clip depicted a man inserting a unit inside a welding machine. The artisan clip showed a man involved in a chair-making process. The selected clips were controlled through two pre-tests.

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<sup>2</sup> The two videos were selected from an initial pool because they depicted the targets from the waist up and from a similar distance.

Figure 1. Frames of the clips used in Study 2 and 3.



Factory worker's clip



Artisan's Clip

In a first pre-test, the two works shown in the clips were evaluated on the same features that were manipulated in Study 1. Thirty-five volunteers (26 females) who were blind to the study aims evaluated each work on repetitiveness (*repetitive, monotonous*;  $r = .57, p < .001$ , for the factory work;  $r = .66, p < .001$ , for the artisan work), fragmentation (*fragmented, parceled*;  $r = .50, p = .003$ , for the factory worker;  $r = .35, p = .043$ , for the artisan work) and dependence on machine (*dependent on machine; tied on the rhythm of the machine*;  $r = .46, p = .005$ , for the factory work;  $r = .42, p = .011$ , for the artisan work) using a 7-point scale (1 = *not at all*; 7 = *extremely*). As predicted, a series of  $t$  tests revealed that the work shown in the factory worker's clip was judged as more repetitive ( $t(34) = 15.30, p = .000, d = 2.99$ ), fragmented ( $t(34) = 3.57, p = .001, d = 0.63$ ) and dependent on the machine ( $t(34) = 17.86, p = .000, d = 2.89$ ) than the work shown in the artisan's clip.

In a second pre-test, the two targets depicted in the videos were evaluated on perceived pleasantness and familiarity. Thirty volunteers (17 females) who were blind to the study aims rated the pleasantness ("How pleasant is the target filmed in the video?") and familiarity ("How familiar is the target filmed in the video?") of the factory worker and the artisan on a 7-point scale (1 = *not at all*; 7 = *extremely*). A series of  $t$ -tests showed that there were no significant differences between the two targets in terms of the ratings of perceived pleasantness ( $t(28) = .14, p = .89$ ) and familiarity ( $t(28) = .76, p = .45$ ).

*Focus manipulation.* In the person focus condition, participants were told: “You are going to view a video clip. Please focus on the person filmed in the video while you watch.” In the work focus condition, the word “person” was replaced with “work”.

*Manipulation check item.* After viewing the clip, participants were asked to indicate what they focused on while viewing the video (work vs. person).

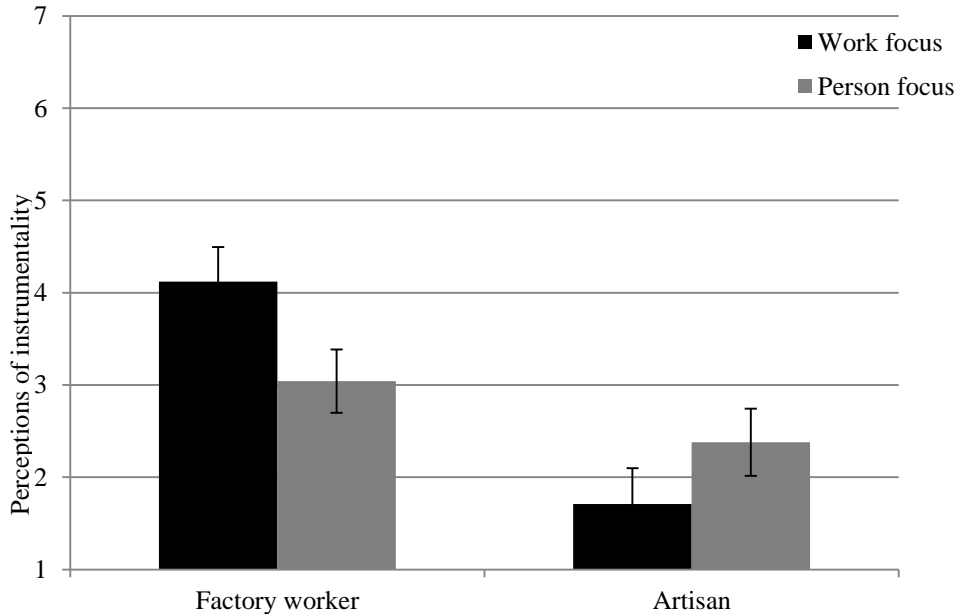
*Measures of instrumentality and humanness.* Perceptions of instrumentality and humanness towards the target were detected using the same measure that was used in Study 1. Participants were asked to rate the extent to which (1 = *not at all*; 7 = *extremely*) the target evoked the five instrument-related words ( $\alpha = .91$ ) and the five human-related words ( $\alpha = .88$ ) employed in Study 1. We then calculated the average ratings for the instrument-and human-related words.

## 4.2 Results and discussion

All participants correctly responded to the manipulation-check item. We conducted two 2 (target: factory worker vs. artisan)  $\times$  2 (focus: work vs. person) ANOVAs on the average ratings of the instrument- and human-related words.

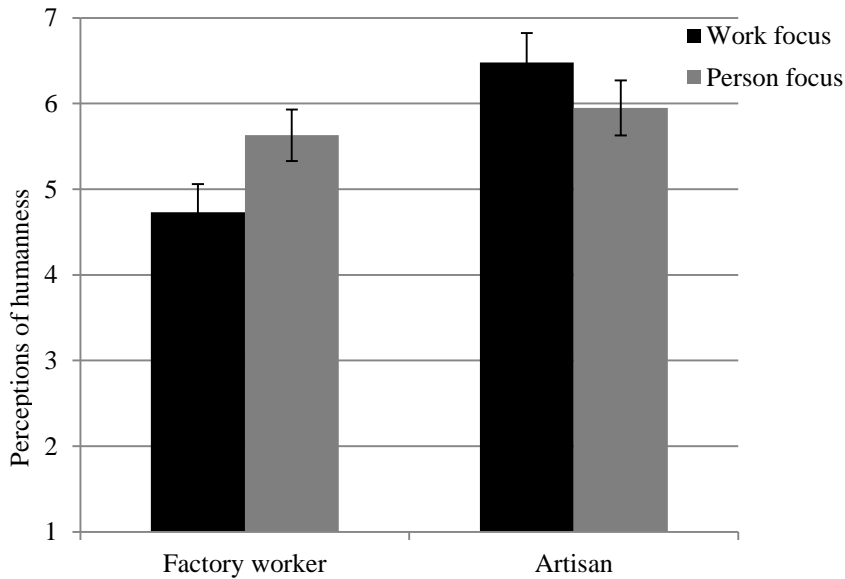
Regarding the instrument-related words, the analysis did not yield a main effect for focus,  $F(1,59) = 0.31, p = .58$ . However, we found a main effect for target,  $F(1,59) = 17.35, p < .001, \eta_p^2 = .23$ , indicating that the factory worker ( $M = 3.58, SD = 1.71$ ) was associated with the instrument-related words more than the artisan ( $M = 2.05, SD = 1.23$ ) was. Crucially, this main effect was qualified by the expected two-way interaction Focus  $\times$  Target,  $F(1,59) = 5.59, p = .02, \eta_p^2 = .09$ . In line with our hypotheses, follow-up analyses of the pairwise comparisons revealed that participants perceived the factory worker more as an instrument when they were primed to focus on his work ( $M = 4.12, SD = 1.82$ ) rather than on his person ( $M = 3.04, SD = 1.49$ ),  $F(1,59) = 4.47, p = .04, \eta_p^2 = .07$ . Additionally, as predicted, the perception of the artisan as an instrument was unaffected by the focus manipulation ( $M = 1.71, SD = 1.26$  for the work focus condition,  $M = 2.38, SD = 1.15$  for the person focus condition),  $F(1,59) = 1.57, p = .22$  (see Figure 2).

Figure 2. Perceptions of instrumentality as a function of target and focus manipulation. Study 2



Regarding the human-related words, the main effect of focus was not significant,  $F(1,59) = 0.33, p = .57$ . Instead, the target manipulation significantly affected the mean score of the human-related words,  $F(1,59) = 101.4, p = .002, \eta_p^2 = .15$ , indicating that participants associated these words less with the factory worker ( $M = 5.18, SD = 1.50$ ) than with the artisan ( $M = 6.22, SD = 1.07$ ). However, the two-way interaction  $\text{Focus} \times \text{Target}$  qualified this main effect,  $F(1,59) = 4.84, p = .03, \eta_p^2 = .08$ . Pair-wise comparisons showed that participants perceived the factory worker less as a human being when they were primed to focus on his work ( $M = 4.73, SD = 1.77$ ) rather than on his person ( $M = 5.63, SD = 1.14$ ),  $F(1,59) = 4.03, p = .05, \eta_p^2 = .06$ . The focus manipulation did not affect the perception of the artisan as a human being ( $M = 6.48, SD = 0.88$  for the work focus condition,  $M = 5.95, SD = 1.19$  for the person focus condition),  $F(1,59) = 1.27, p = .26$  (see Figure 3).

Figure 3. Perceptions of humanness as a function of target and focus manipulation. Study 2



These findings lend support to our hypotheses: focusing on the work activities performed by the factory workers (vs. on the person performing the work) increases perceptions of their instrumentality and decreases perceptions of their humanness. In contrast, focusing on the artisans' work activities does not lead to the same outcome. Thus, the factory workers, but not the artisans, seem to be objectified as a consequence of the work they perform.

### 5. Study 3

Study 3 was designed to replicate and extend the findings of Study 2. In particular, using the same procedure and materials that were used in Study 2, we aimed to explore whether focusing on the work activities that the worker performs (vs. the worker as a person) would also undermine the laypeople's mind attributions towards him. Consistent with Study 2, we expected that these effects would be specific to factory work and would not emerge in the artisan work condition.

## 5.1 Method

### 5.1.1 Participants.

Eighty-three undergraduates (68 females) participated in the study in exchange for partial course credit. The participants' ages ranged from 19 to 60 years ( $M = 22.24$ ,  $SD = 4.65$ ). Ten participants had at least one parent who was employed as a factory worker.

### 5.1.2 Procedure and materials.

A 2 (target: factory worker vs. artisan)  $\times$  2 (focus: work vs. person) between-subjects design was used in which participants were randomly assigned to the experimental conditions. The procedure and materials were the same that were used in Study 2. However, after participants viewed the video clip, they were asked to assess the extent to which (1 = *not at all*; 7 = *very much*) they perceive the target as able to experience the 20 mental states (MSA;  $\alpha = .94$ ) listed in Study 1. After this task, participants were asked about their demographic information and then thanked and fully debriefed.

## 5.2 Results and discussion

We performed a 2 (target: factory work vs. artisan)  $\times$  2 (focus: work vs. person) ANOVA for the MSA total score. The results revealed that the focus manipulation did not affect participants' mental attributions towards the target,  $F(1,79) = 1.14$ ,  $p = .29$ . Instead, the target manipulation significantly affected such attributions,  $F(1,79) = 40.67$ ,  $p < .001$ ,  $\eta_p^2 = .34$ , with the factory worker perceived as less in possession of human mental states ( $M = 4.14$ ,  $SD = 0.92$ ) compared with the artisan ( $M = 5.30$ ,  $SD = .82$ ). Crucially, this main effect was qualified by the two-way interaction Focus  $\times$  Target,  $F(1,79) = 8.59$ ,  $p = .004$ ,  $\eta_p^2 = .10$ . As expected, pairwise comparisons showed that participants who focused on the work performed by the factory worker attributed fewer mental states to him ( $M = 3.77$ ,  $SD = 0.93$ ) compared with participants who focused on his person ( $M = 4.50$ ,  $SD = 0.77$ ),  $F(1,79) = 7.72$ ,  $p = .007$ ,  $\eta_p^2 = .09$ . In contrast, the focus manipulation did not affect

the attributions of mental states to the artisan target,  $F(1,79) = 1.80, p = .18$  (see Figure 4)<sup>3</sup>.

Figure 4. Attributions of mental states as a function of target and focus manipulation. Study 3



In line with Study 2, Study 3 showed that priming participants to focus on factory work activities increased objectifying perceptions. In particular, in this study we found that participants who focused on the activities that the factory worker conducted tend to attribute fewer mental states to him than participants who focused on his person did. In comparison, consistent with Study 2, the salience of the artisan’s work (vs. the person of the artisan) does not seem to affect attributions of mind, presumably because the features of this work do not convey an objectified view of the target.

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<sup>3</sup> A post-hoc power analysis was conducted for Study 2 and 3 using G\*Power version 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009), focusing on the key hypothesis regarding the interaction between target and focus manipulation. Based on the observed effect sizes, results showed a power of .69 (perceptions of instrumentality as dependent variable) and of .63 (perceptions of humanness as dependent variable) for Study 2, and a power of .85 for Study 3.



## 6. Conclusions

Across three studies we investigated whether an individual would be objectified as a consequence of the work activities that he/she performs. We elected to focus on the factory work because relevant theoretical analyses (e.g., Arendt, 1958; Fromm, 1974; Marx, 1844; Nussbaum, 1995) have reflected on the objectifying nature of such work. In particular, we focused on three core features that characterize this work (Blauner, 1964): the repetitiveness of movements, the fragmentation of activities and the dependence on the machine. In Study 1, we isolated the distinct impact of these features by using text vignettes that described a target employed in a factory. The results of this study showed that the presence of each feature played a significant and unique role in promoting the view of the target as instrument-like (vs. human being) and as less able to experience human mental states. These findings were replicated and extended in Studies 2 and 3, in which these features were made salient together by using video clips that depicted two workers – a factory worker vs. an artisan – while performing their manual work activities. By employing an experimental paradigm previously used in sexual objectification research (see Heflick & Goldenberg, 2009; Heflick et al., 2012), we found that, compared with focusing on the factory worker target as a person, focusing on the factory worker target's work activities led participants to objectify the target; that is, the work-activity focus condition led participants to perceive the factory worker more as an instrument and less as a human being (Study 2) and as less able to experience human mental states (Study 3). Importantly, the same effects did not emerge for the artisan target, confirming that, at least within the manual work domains, objectifying perceptions emerge in work settings with particular features. In contrast, objectification is not likely to occur for workers whose manual labours (i.e., artisan) are characterised by fewer repetitive and other-directed work activities. Although it was not significant, both Studies 2 and 3 even showed an opposite trend in the artisan condition, indicating that the target was perceived as less instrument-like, more human and more defined by human mental states when the work focus (vs. the person focus) was primed. This trend seems to confirm some theoretical

assumptions (e.g., Arendt, 1958; Marx, 1844) that fulfilling work may positively contribute to a representation of the worker as fully human.

Our findings nicely complement the previous work by Gruenfeld and colleagues (2008). If this latter explored the motivational processes that lead to objectify others within hierarchical working relations, here we focused on the cognitive process that may generate this form of objectification. With regard to the nature of such process, we believe that the salience of specific work activities activated a process of inductive inference that leads respondents to judge the human target as a non-human actor. In particular, it may be conceptualized as symmetrical to the cognitive process that triggers anthropomorphism (Waytz, Epley & Cacioppo, 2010). As animals that display humanlike movements are assimilated to human beings and attributed humanlike mental capacities (Morewedge, Preston, & Wegner, 2007), human beings that perform fragmented, repetitive and automatized actions may be assimilated to mere mindless and passive objects and, thus, be judged to have less human attributes. That is, it is possible that the salience of these actions made accessible to the perceivers a product of knowledge representations associated with non-human actors, which subsequently were inferred to the human target. Like any complex phenomena, we think that multiple factors concur to determine objectification of workers, involving cognitive (i.e., they are objectified because of the activities that they perform) and motivational (i.e., they are objectified in order to achieve one's own purposes) determinants. Thus, we do not see the cognitive processes that we studied as mutually exclusive from the motivational forces that characterize objectification in hierarchical work settings. Rather, we argue that an exhaustive analysis of this phenomenon should consider both these processes.

To sum up, in this chapter we found that critical working activities can lead to objectify the worker, in terms both of instrumentality and of denial of humanness. Similar to research on sexual objectification that has focused on both facets of this phenomenon (i.e., self-objectification and other-objectification; see Heflick & Goldenberg, 2014), we believe that research on the other-objectification of workers would go hand in hand with the analysis of the impact of work and its characteristics on the workers themselves. Therefore, the next chapter will present the other facet of

the phenomenon trying to reply to this question: do critical activities lead also to self-objectify?



## CHAPTER THREE

### SELF-OBJECTIFICATION AT WORK: THE EFFECT OF WORK ACTIVITIES ON SELF-OBJECTIFICATION AND ITS CONSEQUENCES

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*This chapter is based on: Baldissarri, C., Andrighetto, L., Gabbiadini A., & Volpato, C. (2016). Work and freedom? Working self-objectification and personal free will. British Journal of Social Psychology, Advance Online Publication.*

## 1. Introduction

In the previous chapter, we showed that other-objectification may arise in the absence of power asymmetric relations and may be embodied in the characteristics of the work itself. In three experimental studies, we considered three specific characteristics of factory work tasks (Blauner, 1964) - repetitiveness, fragmentation, and other-direction (i.e., the external control of pace) - and found that each characteristic significantly affected laypeople's views of factory workers as instrument-like and as being less able to experience human mental states. Furthermore, when participants focused on the specific activities of a factory worker rather than his personhood, they objectified him. Importantly, the same pattern of results did not emerge when they were asked to focus on the activities of an artisan worker because the features of this type of work do not elicit an objectified view of the worker.

These findings are very relevant because showed the evidence of objectification caused by critical working activities. However, self-objectification is perhaps the most insidious facet of this phenomenon. According to objectification theory (Frederickson & Roberts, 1997), the objectifying gaze is an important factor that triggers self-objectification as it leads the objectified targets to internalise the observer's perspective and, consequently, to objectify themselves. As exposed in Chapter 1, a cross-sectional study (Baldissarri, Andrighetto, & Volpato, 2014; see also Auzoult & Personnaz, 2016) analysed this phenomenon in a hierarchical real-work setting. This research revealed that when subordinate workers perceived that their superiors viewed them as mere instruments, they internalised this objectifying gaze and objectified themselves.

By integrating this initial empirical evidence with the results of Chapter 2 and the theoretical analysis of Chapter 1, the first aim of the present studies was to experimentally verify whether critical working conditions would lead to self-objectification per se, even in the absence of a potentially objectifying gaze. Specifically, our purpose was to verify whether performing repetitive, fragmented and other-directed activities would cause not only other-objectification, but also self-objectification.

Additionally, through the following experiments, we wanted to take another step forward in the study of the possible consequences of self-objectification by connecting it with the concept of belief in personal free will. Indeed, Marx claimed that in a capitalistic society, work is not a free activity but rather an external imposition in which workers are considered mere tools and are evaluated exclusively in terms of their productivity. According to Marx, industrial work leads to a deformation process whereby the richer the product, the poorer the worker becomes, as he is transformed into a spiritless “nature’s bondman” (Marx, 1844/1978, p. 73). Further, according to Blauner, with the increase of complexity and specialization of social and productive system, subordinate works become more fragmented, repetitive and other-directed, and worker is pushed away by the meaning of its job. The rationality of technology and of work organization, that does not allow the active intervention of workers, increases the alienating tendencies of industrial work that make it more likely that the worker is treated as a thing and not as a person. According to the author, the opposite of alienation is freedom, the ability to understand and control one’s own work, being able to perceive it as rewarding and as a source of personal identification. Consistent with these reflections, Arendt (1958) argued that the industrial system has contributed to the victory of the *animal laborans*, a passive entity whose agency and autonomy are neglected, over the *homo faber*, an active worker who has the ability to take initiative and think autonomously. In this victory, Arendt denounced the general loss of the human experience and freedom of action. Interestingly, Fromm (1941, 1956) pre-empted these thoughts and analysed the relationship between modern man and (the loss of) personal freedom. In his view, modern capitalism inevitably compels workers to adapt to the demands of the machine and act as mere tools with the sole purpose of increasing production. This process represents a sort of unconscious objectification that leads workers to internalise the demands of the industrial system and to perceive an illusory freedom, while they actually need others who can make decisions for them.

Drawing on this perspective on the modern worker and the loss of personal freedom, we aimed to empirically verify whether performing objectifying work-

related tasks would decrease the belief in personal free will (Rakos, Laurene, Skala, & Slane, 2008) via increased self-objectification.

### ***1.1 Belief in free will and objectification***

Belief in free will, understood as the perception of having the ability to make free and conscious choices (Baumeister & Monroe, 2014; Feldman, 2017), is a core characteristic of civilised human beings. According to Baumeister (2005), free will is a fundamental part of human identity that allows individuals to pursue their personal interests within the complex context of social life, where they are, for instance, required to follow rules, control impulses and plan to pursue delayed benefits. Therefore, ‘free will is among the distinctively human traits that are adaptations for culture’ (Baumeister & Monroe, 2014, p.12). Accordingly, several empirical studies have documented that the belief in free will affects, for example, moral and interpersonal behaviours (e.g., Baumeister, Masicampo, & Dwall, 2009; Vohs & Schooler, 2008) and life choices (Feldman, Baumeister, & Wong, 2014). Stillman and colleagues (2010) also revealed that it is a relevant dimension within the work domain, as it leads to better job performance, satisfaction and career attitudes.

With the goal of broadening the literature about this variable within the work domain, in the present studies we aimed to verify whether performing certain work-related tasks would affect the belief in personal free will. Indeed, laypeople conceive of free will as the ability to make choices, to act consistently with their desires and to be free of constraints (Monroe & Malle, 2010). Feldman and colleagues (2014) demonstrated that having more opportunities for choice consistently leads to a stronger activation of the belief in personal free will. Thus, we assumed that performing repetitive, fragmented and other-directed tasks (i.e., objectifying tasks) would negatively affect people’s belief in personal free will, as these tasks intrinsically imply having limited opportunities for choice and freedom from constraints.

Importantly, we hypothesized that this effect would be explained by people’s increased tendencies to objectify themselves. Indeed, exerting free will is based on fundamental human abilities as intentions, self-control and rational thought



(Baumeister, Crescioni, & Alquist, 2011). We assumed that performing an objectifying activity would lead to self-objectification, in terms of a decrease of self-attribution of mental states and of self-perception as an instrument. Both these two dimensions of objectification in turn can lead to a decrease of belief in having free will. Feeling not to be able to experience different mental states that stay at the basis of the possibility to exert free will, would lead people to believe not to have free will, as well as feeling not as a human being but as an instrument, being free will peculiar of evolved human beings and not of objects that are subject to others' choices. Therefore performing an objectifying activity would lead to feel as an object that doesn't have the ability to make choice on its own. The rationale for this prediction is based on the assumption that while agents are seen as having minds that manage their actions, objects are, and are perceived as, passive entities that are controlled by external forces (Molina, Van de Walle, Condry, & Spelke, 2004; Wegner, 2002) and that cannot act on their own but are rather acted upon (Dennett, 1987; Michotte, 1946, 1963). Thus, increased self-perception as objects would lead people to internalise this state of passivity and dependence on external choices. This internalisation would imply a decreased sense of responsible autonomy and conscious choice, that is a decreased belief in having personal free will.

## **2. Overview of the studies**

Three laboratory experiments were designed to test our hypotheses. In all the studies, the participants were randomly assigned to experimental conditions in which they were asked to perform objectifying or non-objectifying tasks. In particular, we employed manual (Study 1 and 2) or computer (Study 3) work activities, created ad hoc, where the presence (vs. absence) of the key features of working objectification — repetitiveness, fragmentation and other-direction of activities — were manipulated.

As mentioned above, we chose to focus on these characteristics because, on one hand, the previous chapter revealed that they are crucial in shaping objectification within the work domain. On the other hand, a number of theoretical analyses (e.g., Arendt, 1958; Blauner, 1964; Fromm, 1941; Hackman & Oldman,

1976) considered them to be detrimental conditions that undermine workers' identity and humanity. Indeed, repetitiveness refers to an activity in which the same task – or a set of a few tasks – is continuously performed. Thus, it leads to the exercise of the same few skills, which requires lower competence and less creative thinking than other activities. Fragmentation refers to the separation of activities into discrete pieces requiring a limited number of skills and pertaining to only a part of the whole production process. Furthermore, fragmentation is considered an important cause of the impoverishment of work as it obstructs workers' comprehension of the production process as a whole (Jaeggi, 2014; Marx, 1844/1978). Other-direction refers to the control of activities by external sources (e.g., the pace of a conveyor belt), which prevents people from working at their own pace and undermines their ability to plan activities.

In all studies, after performing the activity, participants' beliefs in personal free will and self-objectification were assessed, both in terms of the decreased self-attribution of human mental states (Study 1 and 3) and increased self-perception as instruments rather than human beings (Study 2 and 3).

We hypothesised that the participants assigned to objectifying conditions would objectify themselves more than participants assigned to non-objectifying or baseline conditions (Study 2 and 3). In turn, increased self-objectifying perceptions would decrease belief in personal free will. We expected that self-objectification would mediate the relationship between performing objectifying activities and a decreased belief in free will.

### **3. Study 1**

#### **3.1 Method**

##### *3.1.1 Participants.*

Sixty psychology undergraduates (47 females) from a large Italian university participated in the study in exchange for partial course credit. The participants' ages ranged from 19 to 40 years ( $M = 24.35$ ,  $SD = 3.97$ ).

### 3.1.2 Procedure and materials.

The study was presented as a research investigating the recruitment process in a simulated workplace. The participants came into the lab individually and were randomly assigned to one of two experimental conditions (objectifying vs. non-objectifying), in which they were asked to perform a manual activity lasting 20 minutes (see Figure 1).

More concretely, they were presented with a set of small wooden pieces that were placed on the lab table. In the objectifying condition, the participants were asked to build a series of small windows (for a total of 100 windows) by putting together 5 wooden pieces. They were told that each window would subsequently be combined with other pieces to form a small wooden house. Furthermore, they were instructed to build each window in 12 seconds and informed that if they finished before this time interval, they had to wait before beginning to work on the following window. A sound from a timer located in front of the lab table alerted them at the end of each time interval. Thus, this activity was created to simulate a highly repetitive (building the windows was a repetitive and monotonous task), fragmented (the participants were told that they only contributed to a part of the whole process) and other-directed (their activity was paced by a timer) work.

*Figure 1. Frames of the activities conducted in Study 1 and 2.*



*Objectifying activity*



*Non-objectifying activity*

In contrast, in the non-objectifying condition, the participants were asked to build a small wooden house by using all or only some of the wooden pieces on the

lab table. They were asked to spend all 20 minutes allotted to them. Furthermore, the timer was not used in this condition.

After performing the activity, all participants were asked to complete a questionnaire with the following measures.

*Manipulation check.* The participants evaluated the repetitiveness (5 items: repetitive, various, stimulating, boring, monotonous;  $\alpha = .94$ ), fragmentation (5 items: fragmented, segmented, parcelled, fractionated, split;  $\alpha = .86$ ) and other-direction (5 items: controlled, other-directed, autonomous, subordinate, depending on;  $\alpha = .80$ ) of the activity on a 7-point scale (1 = *not at all*; 7 = *extremely*).

*Self-objectification.* Self-objectification was measured through the Self-Mental State Attribution task (SMSA; Baldissarri et al., 2014), an adaptation of the Mental State Attribution task (MSA; Haslam, Kashima, Loughnan, Shi, & Suitner, 2008; see also Holland & Haslam, 2013). The SMSA required participants to rate the extent to which they felt themselves able to experience 20 mental states ( $\alpha = .94$ ) during the activity. Mental states referred to perceptions (e.g., hearing), thoughts (e.g., reasoning), wishes (e.g., wishing), intentions (e.g., planning) and emotions (e.g., fear, pleasure). The items were rated on a 7-point scale (1 = *not at all*; 7 = *very much*).

*Belief in personal free will.* To measure the participants' belief in personal free will, we used a subscale (8 items;  $\alpha = .91$ ) of the Free Will and Determinism scale (FWD, Rakos et al., 2008). The participants were required to state the degree to which they believed they had free will (1 = *not at all*; 7 = *extremely*) after the activity. Sample items included "I am in charge of my actions even when my life's circumstances are difficult" and "I have free will".

After completing the questionnaire, the participants were thanked and debriefed.

### **3.2 Results and discussion**

Table 1 reports the correlations among all the measured variables. As shown, participants' ratings of repetitiveness, fragmentation and other-direction of the

activity were significantly correlated with SMSA, whereas only repetitiveness and other-direction were significantly correlated with the belief in personal free will.

*Table 1. Correlations between the measured variables. Study 1.*

Variables	1	2	3	4	5
1. Repetitiveness	-				
2. Fragmentation	.70***	-			
3. Other-direction	.74***	.63***	-		
4. SMSA	-.71***	-.52***	-.64***	-	
5. Belief in personal free will	-.32**	-.08	-.27*	.45***	-

*Note.* \*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$ . SMSA abbreviation refers to the self-mental state attribution.

A between-subjects MANOVA was conducted to verify the extent to which participants perceived the activities (objectifying vs. non-objectifying) as repetitive, fragmented and other-directed. The findings revealed a main effect of the condition,  $\lambda = .18$ ,  $F(3,56) = 82.95$ ,  $p < .001$ ,  $\eta_p^2 = .82$ . The participants in the objectifying condition perceived the activity as significantly more repetitive ( $M = 6.24$ ,  $SD = 0.81$ ), fragmented ( $M = 4.42$ ,  $SD = 1.25$ ) and other-directed ( $M = 4.85$ ,  $SD = 1.05$ ) than participants in the non-objectifying condition (respectively:  $M = 2.93$ ,  $SD = 0.98$ ;  $M = 2.58$ ,  $SD = 0.98$ ;  $M = 2.60$ ,  $SD = 0.71$ ; all  $F_s(1,58) \geq 40.34$ ,  $p_s < .001$ ,  $\eta_p^2_s \geq .41$ ).

Two independent  $t$ -tests were then conducted to compare the effect of the experimental conditions on participants' self-objectification and belief in free will (see Table 2). Regarding the SMSA, the results revealed the expected effect of the experimental condition,  $t(58) = -7.19$ ,  $p < .001$ ,  $d = 1.85$ : the participants who performed the objectifying activity attributed fewer mental states to themselves than did the participants in the non-objectifying condition. A similar pattern was found for belief in personal free will: the participants in the objectifying condition perceived less personal free will after performing the activity than did the participants in the non-objectifying condition,  $t(58) = -2.99$ ,  $p = .004$ ,  $d = 0.79$ .

Table 2. Mean ratings of SMSA and belief in personal free will as a function of activity manipulation. Study 1.

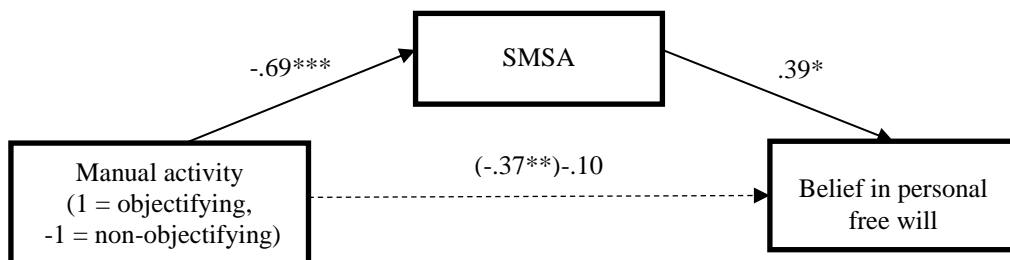
Variables	Conditions	
	Objectifying	Non-objectifying
SMSA	2.82 <sub>a</sub> (0.92)	4.52 <sub>b</sub> (0.91)
Belief in personal free will	4.66 <sub>a</sub> (1.28)	5.50 <sub>b</sub> (0.84)

Note. Means with different subscripts in the same row differ significantly,  $p < .01$ . SMSA abbreviation refers to the self-mental state attribution. Standard deviations are provided in parentheses.

To examine the prediction that performing an objectifying (vs. non-objectifying) activity would decrease the belief in personal free will via self-objectification, we conducted a conditional process model using the PROCESS macro (Model 4) for SPSS with 5000 bootstrapping samples (Hayes, 2013; see Figure 2). Confirming the findings above, the analysis showed that performing an objectifying activity (vs. non-objectifying) significantly predicted a decreased self-attribution of mental states,  $b = -.85$ ,  $SE = .12$ ,  $t(1,58) = -7.19$ ,  $p < .001$ . In turn, SMSA was related to belief in personal free will,  $b = .36$ ,  $SE = .15$ ,  $t(2,57) = 2.39$ ,  $p = .02$ . Furthermore, when entered together with the mediator, the direct effect of the condition on belief in personal free will turned out to be non-significant,  $b = -.12$ ,  $SE = .18$ ,  $t(2, 57) = -.62$ ,  $p = .53$ . Crucially, confirming our mediational hypothesis, the indirect effect of the experimental condition on decreased belief in personal free will via SMSA was significant,  $a*b = -.30$ , 95% CI  $[-.65, -.06]^4$ .

<sup>4</sup> We also tested an alternative mediation model in which SMSA was entered as the dependent variable and the belief in personal free will was entered as the mediator. Although the indirect effect of the experimental condition on SMSA via belief in personal free will was significant,  $a*b = -.11$ , 95% CI  $[-.25, -.02]$ , when entered together with the mediator the direct effect of the condition on SMSA was still significant,  $b = -.74$ ,  $SE = .12$ ,  $t(2, 57) = -6.09$ ,  $p < .001$ , suggesting a partial mediation of belief in personal free will. Thus, supporting our proposed model, SMSA appears to be a more reliable mediator than belief in personal free will, as it fully mediates the effect of the experimental condition on the belief in personal free will.

Figure 2. Mediation model testing the indirect effect of the manual objectifying activity (1 = objectifying, -1 = non-objectifying) on the belief in personal free will via SMSA. Study 1.



Note. SMSA = Self-Mental State Attribution. \*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ . The values reflect standardized  $\beta$  coefficients.

The findings of Study 1 provide the first support to our hypotheses. Performing an objectifying manual task, i.e., a repetitive, fragmented and other-directed task, significantly impacted people’s tendencies to self-objectify and their belief in having free will. Furthermore, as predicted, increased self-objectifying perceptions explained the relationship between objectifying activity (vs. non-objectifying) and decreased perceptions of free will.

#### 4. Study 2

Study 2 was designed to replicate and extend the results obtained in Study 1. First, we considered a different measure of self-objectification that focused more on the dimension of instrumentality. We reasoned that an alternative measure of self-objectification would allow us to ensure that the significant relationship between self-objectification and reduced belief in free will was not due to the specific measure considered in Study 1. Indeed, the SMSA includes mental states (e.g., planning, deciding) that are potentially linked to perceptions of personal free will that could have affected this variable per se. Second, through this Study we aimed to provide a more stringent test of our hypotheses by adding a baseline condition. Study 1 did not allow us to verify whether our results were actually due to the objectifying activity, or, rather, to the non-objectifying activity. Indeed, one could argue that the

activity that the participants performed in the non-objectifying condition was a creative and free task that could have triggered a sort of ‘super-humanization’ among them. Accordingly, in Study 2 we expected that the participants assigned to the non-objectifying condition would display lower self-objectification and stronger belief in free will compared to those assigned to the objectifying condition but not compared to those assigned to the baseline condition.

## 4.1 Method

### 4.1.1 Participants.

Ninety-two undergraduates (67 females) participated in the study in exchange for partial course credit. The participants’ ages ranged from 18 to 65 years ( $M = 23.83$ ,  $SD = 6.22$ ).

### 4.1.2 Procedure and materials.

The procedure was similar to that of Study 1 with the addition of the baseline condition. The participants were randomly assigned to three experimental conditions (objectifying vs. non-objectifying vs. baseline). The participants in the objectifying and non-objectifying conditions were asked to perform the same tasks as in Study 1. In contrast, the participants assigned to the baseline condition completed the questionnaire with the measures described below without performing any activity beforehand.

*Manipulation check.* The participants in the activity conditions were asked to judge the activity they performed using the same items as Study 1. These items assessed the degree to which the activity was repetitive ( $\alpha = .93$ ), fragmented ( $\alpha = .88$ ) and other-directed ( $\alpha = .75$ ).

*Self-objectification.* The measure of instrumentality used in the previous chapter was adapted to measure self-objectification. The participants were asked to rate the extent to which they perceived themselves as similar (1 = *not at all*; 7 = *extremely*) to five instrument-related items (instrument, device, tool, thing, machine) and five human-related items (human being, person, individual, subject, someone).



To obtain both instrument and human scores, we calculated two average ratings for the instrument-related ( $\alpha = .91$ ) and human-related words ( $\alpha = .75$ ), respectively.

*Belief in personal free will.* The belief in personal free will was detected using the same measure ( $\alpha = .86$ ) as in Study 1<sup>5</sup>.

Finally, the participants were thanked and debriefed.

## 4.2 Results and discussion

Table 3 reports the correlations among all the measured variables.

*Table 3. Correlations between the measured variables. Study 2.*

Variables	1	2	3	4	5	6
1. Repetitiveness	-					
2. Fragmentation	.53***	-				
3. Other-direction	.60***	.65***	-			
4. Instrument score	.58***	.53***	.55***	-		
5. Human score	-.35**	-.39**	-.42***	-.36***	-	
6. Belief in personal free will	-.30*	-.50**	-.40***	-.37***	.46***	-

*Note.* \*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$ .

As shown in the Table, the participants' evaluations of repetitiveness, fragmentation and other-direction of the activity significantly correlated both with the self-objectification measures and the belief in personal free will.

The between-subjects MANOVA, which considered only the participants in objectifying and non-objectifying conditions, showed a main effect of condition,  $\lambda = .36$ ,  $F(3,58) = 33.78$ ,  $p < .001$ ,  $\eta_p^2 = .64$ : the activity was significantly perceived as more repetitive ( $M = 5.45$ ,  $SD = 1.17$ ), fragmented ( $M = 4.01$ ,  $SD = 1.35$ ) and other-directed ( $M = 4.14$ ,  $SD = 1.39$ ) in the objectifying condition than in the non-objectifying one ( $M = 2.71$ ,  $SD = 1.06$ ;  $M = 2.49$ ,  $SD = 0.99$ ;  $M = 2.73$ ,  $SD = 0.98$ ,

<sup>5</sup> In both Studies 2 and 3, for the self-objectification and the belief in personal free will measures the participants in the objectifying and non-objectifying conditions were asked to express their perceptions during the activity and after the activity, respectively. Instead, the participants in the baseline condition were asked to express their perceptions at that moment.

respectively; all  $F_s(1,60) \geq 21.44, p_s < .001, \eta_p^2 \geq .26$  ). Thus, similar to Study 1, our manipulation proved successful. Three one-way between-subjects ANOVAs were then conducted on self-objectification scores and belief in free will. Regarding self-perceptions of being instrument- and human-like, the results revealed the expected effect of the experimental condition on the instrument score,  $F(2,89) = 10.06, p < .001, \eta_p^2 = .18$ , and on the human score,  $F(2,89) = 4.70, p = .01, \eta_p^2 = .09$ .

*Table 4. Mean ratings of self-perceptions as instrument-like, human-like and belief in personal free will as a function of activity manipulation. Study 2.*

Variables	Conditions		
	Objectifying	Non-objectifying	Baseline
Instrument score	3.13 <sub>a</sub> (1.59)	1.95 <sub>b</sub> (1.14)	1.83 <sub>b</sub> (0.94)
Human score	4.70 <sub>a</sub> (1.21)	5.34 <sub>b</sub> (0.89)	5.46 <sub>b</sub> (0.98)
Belief in personal free will	4.49 <sub>a</sub> (1.12)	5.14 <sub>b</sub> (0.87)	5.10 <sub>b</sub> (1.00)

*Note. Means with different subscripts in the same row differ significantly,  $p < .05$ . Standard deviations are provided in parentheses.*

Post-hoc comparisons (see Table 4) indicated that in the objectifying condition participants perceived themselves as less human and more instrument-like than those in the baseline and the non-objectifying condition, while the participants' mean score in the baseline and non-objectifying conditions did not significantly differ. A similar pattern of results emerged for the belief in personal free will: the experimental condition significantly impacted this dependent variable,  $F(2,89) = 4.04, p = .02, \eta_p^2 = .08$ . The participants who performed the objectifying activity perceived themselves as having significantly less personal free will than participants who performed the non-objectifying activity and participants assigned to the baseline condition. Instead, the participants in the non-objectifying and baseline conditions did not display different levels of personal free will.

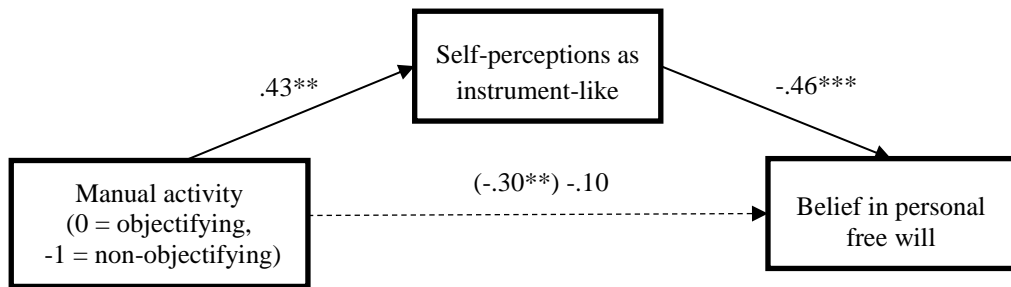
Similarly to Study 1, we tested the mediational role of self-perceptions as instrument-like (vs. human-like) in the relationship between the objectifying activity

and decreased belief in personal free will. In these mediational analyses, the instrument score and the human score were combined into one index so that the higher scores indicated greater self-perception as instrument-like (vs. human-like). Furthermore, because the independent variable was categorical with three levels, we followed the Hayes and Preacher (2014) recommendations and generated two dummy-coded variables with the objectifying condition as the reference group. In particular, Contrast 1 tested the effect of the objectifying condition (coded 0) versus the baseline condition (coded -1), with the non-objectifying condition coded 0. Contrast 2 tested for the residual difference between the objectifying condition (coded 0) and the non-objectifying condition (coded -1), with the baseline condition coded 0. The analysis showed that both Contrast 1,  $b = 2.07$ ,  $SE = .47$ ,  $t(2,89) = 4.39$ ,  $p < .001$ , and Contrast 2,  $b = 1.82$ ,  $SE = .46$ ,  $t(2,89) = 3.94$ ,  $p < .001$ , led to increased self-perceptions as instrument-like, confirming the results of the previous univariate analyses. In turn, the increased self-perceptions as instrument-like decreased the belief in personal free will,  $b = -.23$ ,  $SE = .05$ ,  $t(3,88) = -4.44$ ,  $p < .001$ . Crucially, confirming our mediational hypothesis, the indirect effect of the experimental condition on the decreased belief in personal free will via self-perceptions as instrument-like was significant,  $a*b = -.49$ , 95% CI  $[-.95, -.19]$  for Contrast 1 and  $a*b = -.43$ , 95% CI  $[-.84, -.16]$  for Contrast 2 (for the summarised results for Contrast 2 see Figure 3)<sup>6</sup>.

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<sup>6</sup> Similarly to Study 1, we tested a series of alternative models by considering belief in personal free will as the mediator and self-perception as instrument-like (vs. human-like) as the dependent variable. Both for Contrast 1 and 2, analyses showed a significant indirect effect of the experimental condition on self-perception as instrument-like ( $a*b = .48$ , 95% CI  $[.06, 1.31]$  for Contrast 1,  $a*b = .51$ , 95% CI  $[.10, 1.25]$  for Contrast 2), but, when entered together with the mediator, the effect of the experimental condition was still significant ( $b = 1.59$ ,  $SE = .45$ ,  $t(3, 88) = 3.61$ ,  $p < .001$  for Contrast 1;  $b = 1.31$ ,  $SE = .44$ ,  $t(3, 88) = 3.02$ ,  $p = .003$  for Contrast 2), thus indicating only a partial mediation of belief in personal free will.

Figure 3. Mediation model testing the indirect effect of the manual objectifying activity (0 = objectifying, -1 = non-objectifying) on the belief in personal free will via self-perceptions as instrument-like (vs. human-like). Study 2.



Note. \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ . The values reflect standardized  $\beta$  coefficients.

The findings of Study 2 confirmed and extended those of Study 1: even in the absence of an objectifying gaze, objectifying manual activities increased people’s tendencies to objectify themselves, not only in terms of diminished self-attribution of human mental states but also in terms of increased self-perceptions as instrument-like and decreased self-perceptions as human-like. Crucially, these self-perceptions also mediated the relationship between objectifying activity and belief in personal free will, providing us with an important confirmation that the pattern of the results of Study 1 did not depend on the specific dimension and measure (SMSA) that we considered. Furthermore, the fact that the participants in the non-objectifying condition did not perceive themselves as more human or as having greater belief in free will than the baseline condition revealed that our patterns of results are actually driven by self-objectification tendencies due to the objectifying activity rather than a sort of ‘super-humanization’ due to the non-objectifying activity.

### 5. Study 3

Study 3 aimed to replicate these findings with a more ecologically valid paradigm. That is, we created an ad hoc simulation of a computer job activity by adapting a paradigm used in organisational work laboratory research (Häusser, Schulz-Hardt, Schultze, Tomaschek, & Mojzisch, 2014; Experiment 1). More

specifically, the participants in the objectifying and non-objectifying conditions were asked to assume the role of a computer shop online seller. Similar to Studies 1 and 2, we expected that the participants assigned to the objectifying computer task would attribute fewer human mental states to themselves and perceive themselves as more instrument-like (vs. human-like) than participants in the non-objectifying and baseline conditions. Furthermore, these increased self-objectifying perceptions would mediate the relationship between the objectifying activity (vs. non-objectifying vs. baseline) and the reduced perception of personal free will.

## **5.1 Method**

### *5.1.1 Participants.*

One hundred and two undergraduates (71 females) participated in the study in exchange for partial course credit. The participants' ages ranged from 18 to 63 years ( $M = 22.76$ ,  $SD = 5.85$ ).

### *5.1.2 Procedure and materials.*

The participants were individually examined under experimenter supervision and were first randomly assigned to one of three experimental conditions (objectifying vs. non-objectifying vs. baseline). The study was introduced as a research on recruitment. In the objectifying and non-objectifying conditions, the participants were asked to imagine working for a computer retail store. In both conditions, they were told that the activity would last 20 minutes (see Figure 4).

In the objectifying condition, the participants were told that their task was to perform a single part of the entire sales process, which was compiling computer hardware packages according to customer requests. Each package consisted of four components (a desktop PC, monitor, printer and optional accessory) with different budget options. A table on the computer screen displayed the available PCs, monitors, printers and optional accessories, including their prices. The task consisted in reading the customers' orders that appeared at the top of the screen and then selecting the products that corresponded to the customer's budget.

Figure 4. Frames of the activities conducted in Study 3.

The task of the objectifying activity:

**Acme computer shop**

Ordine n° 8917452  
Cliente n° 0067435  
Budget indicativo cliente: 450 €  
Richieste del cliente: Monitor, computer fisso, tastiera e mouse. Nessun optional.

Prezzo preventivo stimato

Costo dell'ordine: € 0.00  
Tempi di consegna: 0 giorni

Tempo rimanente per evadere l'ordine:  
**14**

**Monitor disponibili**  
Seleziona un monitor per evadere l'ordine  
Monitor disponibili

**Computer fissi disponibili**  
Seleziona un computer per evadere l'ordine  
Modello PC disponibili

**Periferiche esterne**

- Casse esterne - HP 2.0 € 50
- Mouse scroll 3 bottoni € 30
- Tastiera compatta 102 tasti Italiana € 20

**Stampanti**  
Seleziona una stampante per evadere l'ordine  
Stampanti disponibili

Invia l'ordine all'ufficio vendite per la lavorazione successiva

One of the tasks of the non-objectifying activity:

**Acme computer shop**

Centri assistenza ACME | Calendario appuntamenti clienti | Catalogo prodotti

Consulenza tecnica n° 003  
Cliente n° 003  
Budget indicativo cliente: --  
Richieste del cliente: Buongiorno, vi contatto per l'acquisto di alcuni pc per il mio ufficio. Io e i miei collaboratori abbiamo spesso necessità di muoverci fuori sede... ci stavamo chiedendo se valesse la pena acquistare solamente pc portatili o anche pc fissi. Voi cosa consigliereste?

Risposta al cliente:

Strumenti utili

- Centri assistenza ACME
- Calendario appuntamenti clienti
- Catalogo stampanti
- Catalogo portatili e notebook
- Catalogo monitor
- Catalogo Toner stampanti
- Catalogo software e programmi

Conferma la tua consulenza. Una mail verrà automaticamente inviata al cliente.

For each order, the participants had 30 seconds to complete the package. After this time interval, a new order appeared on the screen. If they took fewer than 30 seconds to prepare the order, they had to wait until the end of the time interval before proceeding to the next request. Thus, the activity was created ad hoc to generate a highly repetitive (the participants repeated the same action 40 times), fragmented (they were told that they were completing only a part of the sale process) and other-directed (the participants had to complete each order within a specific time interval) task.

In the non-objectifying condition, the participants were told that their task was to complete the entire sales process. Thus, they were asked to perform different tasks throughout the 20 minutes of the computer activity, including compiling the package, replying to customers' requests and managing appointments with them. Furthermore, the participants did not receive any specific indications about the pace of their work. Thus, the non-objectifying activity was created with a similar scope as the objectifying activity, but was experienced as a varied, non-fragmented and self-directed task<sup>7</sup>.

As in Study 2, in the baseline condition the participants came into the laboratory and completed the questionnaire, including the measures described below, without performing any activity beforehand.

*Manipulation check.* The participants in the activity conditions judged the extent to which they perceived the activity as repetitive, fragmented and other-directed on a 7-point scale (1= *not at all*; 7 = *extremely*).

*Self-objectification.* Self-objectification was measured through the same SMSA task ( $\alpha = .95$ ) used in Study 1 and through the same 5 instrument-related ( $\alpha = .92$ ) and 5 human-related ( $\alpha = .80$ ) words used in Study 2.

*Belief in personal free will.* The belief in personal free will was measured using the same measure used previously ( $\alpha = .86$ ).

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<sup>7</sup> We conducted a Pilot Study to control for presumably confounding variables involved in the manipulation. For the description and results of the Pilot Study, see the Appendix.

After completing the questionnaire, the participants were thanked and debriefed.

## 5.2 Results and discussion

Table 5 reports the correlations among all the measured variables. Similar to Study 2, the participants' ratings of repetitiveness, fragmentation and other-direction of the activity significantly correlated with all the dependent variables that we considered, although the correlation between fragmentation and SMSA was marginally significant.

Table 5. Correlations between the measured variables. Study 3.

Variables	1	2	3	4	5	6	7
1. Repetitiveness	-						
2. Fragmentation	.43***	-					
3. Other-direction	.44***	.36**	-				
4. Instrument score	.51***	.48***	.36**	-			
5. Human score	-.50***	-.34**	-.43***	-.61***	-		
6. SMSA	-.53***	-.28 <sup>†</sup>	-.58***	-.49***	.63***	-	
7. Belief in personal free will	-.35**	-.36**	-.34**	-.47***	.55***	.47***	-

Note. <sup>†</sup>  $p = .057$ , \*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$ . SMSA abbreviation refers to the self-mental state attribution.

A between-subjects MANOVA was conducted to verify whether the participants in the objectifying condition perceived the activity differently from those in the non-objectifying conditions. The MANOVA showed a main effect of the condition,  $\lambda = .63$ ,  $F(3,67) = 13.11$ ,  $p < .001$ ,  $\eta_p^2 = .37$ : the activity was significantly perceived as more repetitive ( $M = 6.32$ ,  $SD = .97$ ), fragmented ( $M = 4.97$ ,  $SD = 1.88$ ) and other-directed ( $M = 5.30$ ,  $SD = 1.63$ ) in the objectifying condition than in the non-objectifying one (respectively:  $M = 4.23$ ,  $SD = 1.79$ ;  $M = 3.88$ ,  $SD = 1.55$ ;  $M = 3.97$ ,  $SD = 1.80$ ; all  $F_s(1,69) \geq 7.04$ ,  $p_s < .01$ ,  $\eta_p^2_s \geq .09$ ).



A series of one-way between-subjects ANOVAs was then conducted to test the effects of the experimental condition (objectifying vs. non-objectifying vs. baseline) on self-objectification measures and participants' belief in free will. Regarding self-perceptions as instrument- and human-like, the results revealed the expected effect of the experimental condition on instrument score,  $F(2,99) = 20.65$ ,  $p < .001$ ,  $\eta_p^2 = .29$ , and human score,  $F(2,99) = 30.30$ ,  $p < .001$ ,  $\eta_p^2 = .38$ .

*Table 6. Mean ratings of self-perceptions as instrument-like and human-like, SMSA and belief in personal free will as a function of activity manipulation. Study 3.*

Variables	Conditions		
	Objectifying	Non-objectifying	Baseline
Instrument score	3.96 <sub>a</sub> (1.73)	2.39 <sub>b</sub> (1.42)	1.88 <sub>b</sub> (0.85)
Human score	3.36 <sub>a</sub> (1.24)	4.70 <sub>b</sub> (1.17)	5.41 <sub>c</sub> (0.86)
SMSA	2.23 <sub>a</sub> (0.74)	3.36 <sub>b</sub> (0.85)	5.00 <sub>c</sub> (0.71)
Belief in personal free will	4.00 <sub>a</sub> (1.31)	5.02 <sub>b</sub> (0.89)	5.20 <sub>b</sub> (0.80)

*Note. Means with different subscripts in the same row differ significantly,  $p < .001$ . SMSA abbreviation refers to the self-mental state attribution. Standard deviations are provided in parentheses.*

Post-hoc comparisons (see Table 6) indicated that in the objectifying condition the participants perceived themselves as less human and more instrument-like than those in the baseline and the non-objectifying condition, while the participants' instrument mean scores in the baseline and non-objectifying conditions did not significantly differ. However, unlike Study 2, the participants in the non-objectifying condition perceived themselves as less human than participants in the baseline condition. A similar pattern of results emerged for the SMSA. The ANOVA showed that the experimental condition significantly impacted this variable,  $F(2,99) = 110.32$ ,  $p < .001$ ,  $\eta_p^2 = .69$ . The participants in the objectifying condition attributed fewer mental states to themselves than those in the baseline and those in the non-objectifying conditions. Furthermore, the mean scores in the non-objectifying

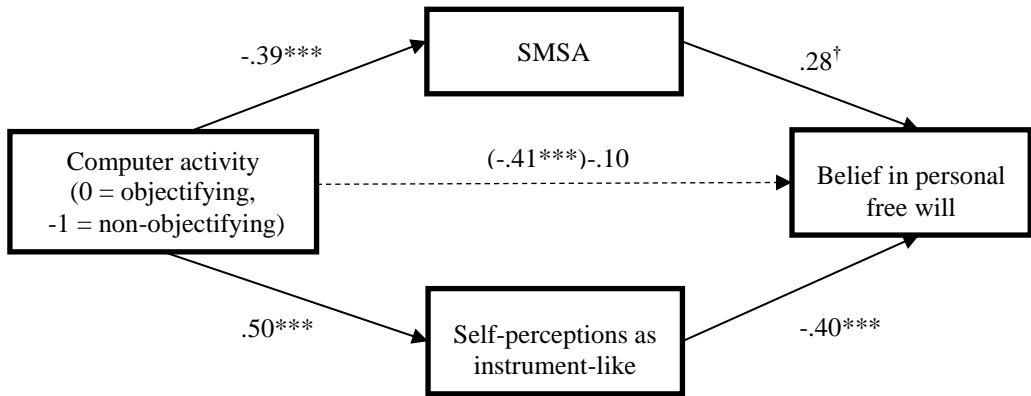
condition differed from the baseline condition. Regarding belief in personal free will, the experimental condition significantly impacted this variable,  $F(2,99) = 13.47$ ,  $p < .001$ ,  $\eta_p^2 = .21$ : participants who performed the objectifying activity believed that they had significantly less personal free will than participants who performed the non-objectifying activity and those in the baseline condition. In this case, the mean scores for the non-objectifying and baseline conditions did not differ significantly.

The mediational roles of SMSA and self-perceptions of being instrument-like (vs. human-like) on the participants' belief in free will were then tested together. Similarly to Study 2, we combined the instrument and human scores into a single index and we created two dummy-coded variables with the objectifying condition as the reference group. Confirming the univariate analyses, the results showed that both Contrast 1 and Contrast 2 led to increased self-perceptions as instrument-like (Contrast 1:  $b = 4.13$ ,  $SE = .52$ ,  $t(2,99) = 7.97$ ,  $p < .001$ ; Contrast 2:  $b = 2.91$ ,  $SE = .51$ ,  $t(2,99) = 5.75$ ,  $p < .001$ ) and to a decrease in SMSA (Contrast 1:  $b = -2.77$ ,  $SE = .19$ ,  $t(2,99) = -14.83$ ,  $p < .001$ ; Contrast 2:  $b = -1.14$ ,  $SE = .18$ ,  $t(2,99) = -6.20$ ,  $p < .001$ ). In turn, the increase in self-perceptions as instrument-like (vs. human-like) led to participants' decreased belief in personal free will,  $b = -.17$ ,  $SE = .05$ ,  $t(4,97) = -3.64$ ,  $p < .001$ , while the decrease in SMSA led to a marginally significant decrease in this belief,  $b = .24$ ,  $SE = .13$ ,  $t(4,97) = 1.86$ ,  $p = .066$ . Crucially, confirming our mediational hypothesis, the indirect effects of the experimental condition on the decreased belief in personal free will via self-perceptions as instrument-like ( $a*b = -.70$ , 95% CI [-1.22,-.24] for Contrast 1 and  $a*b = -.49$ , 95% CI [-.91,-.19] for Contrast 2) and SMSA ( $a*b = -.66$ , 95% CI [-1.29,-.03] for Contrast 1 and  $a*b = -.27$ , 95% CI [-.58,-.02] for Contrast 2) were significant (for the summarised results of Contrast 2 see Figure 5)<sup>8</sup>.

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<sup>8</sup> The alternative models in which belief in personal free will was entered as the mediator revealed a pattern of results similar to that of previous studies. In particular, for Contrast 2 analyses showed a significant indirect effect of the condition – via belief in personal free will – on SMSA,  $a*b = -.20$ , 95% CI [-.44, -.06], and on self-perceptions as instrument-like (vs. human-like),  $a*b = .82$ , 95% CI [.34, 1.49]. However, in both models, the effect of the condition was still significant when entered together with the mediator,  $b = -.93$ ,  $SE = .19$ ,  $t(3, 98) = -4.86$ ,  $p < .001$  for the SMSA and  $b = 2.09$ ,  $SE = .51$ ,  $t(3, 98) = 4.13$ ,  $p < .001$  for self-perceptions as instrument-like, thus indicating a partial mediation of belief in personal free will. Similar results emerged for Contrast 1.

Figure 5. Mediation model testing the indirect effect of the computer objectifying activity (0 = objectifying, -1 = non-objectifying) on the belief in personal free will via self-perceptions as instrument-like (vs. human-like) and SMSA. Study 3.



Note. SMSA = Self-Mental State Attribution.  $^{\dagger} p = .066$ ,  $^{***} p \leq .001$ . The values reflect standardized  $\beta$  coefficients.

The findings of Study 3 replicated the pattern of results that emerged in previous studies by employing an ad hoc created laboratory task that more realistically simulated a modern working activity. The participants who were asked to perform a repetitive, fragmented and other-directed activity on the computer perceived themselves as being less defined by human mental states, more instrument-like and less human-like than the participants who performed a similar but non-objectifying activity and the participants in the baseline condition. It is noteworthy that the non-objectifying activity led to higher self-objectifying perceptions (i.e., to self-attribution of fewer mental states and fewer human-like perceptions) than the baseline condition, although they were lower than those in the objectifying condition. This unexpected difference between the non-objectifying and baseline conditions could depend on the specific task that we employed in this study. That is, although the objectifying characteristics of the activity have a predominant role in eliciting self-objectification, it is possible that doing any computer-related work activity in a forced situation would elicit higher levels of self-objectification than a baseline

condition.

As for the mediation analysis, the findings confirmed the crucial role of self-objectification in explaining the decrease in the belief in free will due to the performed activity. However, SMSA and self-perceptions as instrument-like seem to have had a different impact on this relationship. Specifically, when considered together, SMSA has only a marginal effect on the belief in free will, thus suggesting that self-perceptions as instrument-like could play a predominant role in this process. Alternatively, the presumably high portion of variance that it shared with the concurrent mediator could explain the marginal effects of SMSA. Nevertheless, consistent with previous studies, the significant indirect effects supported the hypothesis that both measures of self-objectification fully mediated the relationship between performing an objectifying activity and the participants' diminished belief in free will.

## **6. Conclusions**

The present studies extend the knowledge about working self-objectification by empirically analysing possible antecedents and consequences of this phenomenon. Across three studies, we consistently found that performing a manual (Study 1 and 2) or a computer (Study 3) task that was repetitive, fragmented and other-directed is a relevant antecedent of working self-objectification per se, which leads people to objectify themselves more than when performing a corresponding but non-objectifying activity. More specifically, our findings documented that performing an objectifying activity significantly affects both the key dimensions characterising the objectification of workers (Nussbaum, 1995): denial of humanness (i.e., denial of human mental states; Study 1 and 3) and perceptions of instrumentality (Study 2 and 3). Moreover, the results revealed that both these dimensions are full mediators of the relationship between performing an objectifying activity and a relevant consequence for the self, i.e., decreased belief in personal free will. With regard to this latter issue, it is noteworthy that the alternative models that we ruled out (see Notes 4, 6 and 8) revealed that belief in personal free will also emerges as mediator of the relationship between the objectifying activity and both dimensions of self-objectification,

although only partially. This unexpected finding may suggest a bidirectional relation between self-objectification and belief in personal free will. That is, it is plausible to imagine that the feeling of not having personal free will can reinforce the perception of being similar to an object, creating a reinforcing effect on self-objectification and thus triggering a vicious circle.

By integrating previous empirical findings with the theoretical insights regarding the objectification of workers in modern society, we revealed that certain characteristics of work are an important source of objectifying self-perceptions. In particular, unlike past cross-sectional research (Baldissarri et al., 2014) that identified the superior's objectifying gaze as an important source of working self-objectification, here we experimentally showed that performing an activity characterized by specific working features evokes self-objectification per se. As observed in the previous chapter, objectifying perceptions in the work domain are determined by multiple factors, which may go beyond the motivational determinants characterising hierarchical relationships. In particular, the salience of specific working activities activates a process of inductive inference that leads laypeople to perceive workers as non-human and passive actors. In the same vein, we demonstrated that performing an activity characterized by the same features triggers self-objectification, over and beyond the internalisation of an objectifying gaze. We think that *Self-perception Theory* (Bem, 1973) importantly helps us to better explain this process. As people define themselves also on the basis of their actions and behaviours, performing a mechanical and repetitive job, and thus acting as a mere passive tool, may contribute to a definition of the self as more similar to an object than a human being. Thus, objectifying work can have a dual effect on workers' identity: a direct effect due to performing an objectifying activity and an indirect effect due to the objectifying gaze elicited by the same objectifying activity. Furthermore, the findings of Study 3 show that this process also emerges in modern, non-manual work activities.

To sum up, in this chapter we found that critical work activities can lead to self-objectification and, in turn, to a decrease of belief in personal free will. However, we think that it is crucial to analyse the phenomenon of self-objectification

in a real work setting, with real workers that perform this kind of activities every day. Therefore, the next chapter will present two field studies that replicate these results integrating them with previous empirical findings and introducing a new source of self-objectification, the perceived job insecurity, and an additional consequence, the decrease of personal well-being.

## **CHAPTER FOUR**

### **SELF-OBJECTIFICATION AT WORK: TWO FIELD STUDIES ON THE ANTECEDENTS AND THE CONSEQUENCES OF WORKING SELF-OBJECTIFICATION**

## **1. Introduction**

The previous chapter provided first evidence about the effects of critical work activities on self-objectification. In three laboratory experiments, we found that performing a manual or a computer objectifying (i.e., repetitive, fragmented and other-directed) task led participants to objectify themselves both in terms of a decreased self-attribution of human mental states and an increased self-perception of being instrument-like. Furthermore, this increased self-objectification led, in turn, to a decrease of belief in personal free will, a key dimension of evolved human beings.

Being work one of the central facets of human life (Bandura, 1995; Cheney, Zorn, Planalp, & Lair, 2008; Ciulla, 2000; Erikson, 1959), we think that it is important to deeply understand the conditions by which it can transform workers into objects, undermining their perception to have the chance to actively make choices, and we think that it is crucial to analyse the phenomenon of self-objectification in real work settings. Therefore, the last two studies presented in this chapter aimed to replicate outside the lab the pattern of results showed in the previous set of experiments, by examining real workers' perceptions in their own workplaces.

Few studies have analyzed self-objectification in a real work setting, focusing especially on workers self-objectification related to the perception of being instrumentalized. As described in Chapter 1, these researches show that workers are subjected to a sort of objectifying gaze. The perceptions of being viewed and treated as instruments by superiors lead workers to internalize this objectifying gaze and to objectify themselves, i.e., perceiving themselves as lacking human mental states (Auzoult & Personnaz, 2016; Baldissarri, Andrighetto, & Volpato, 2014). These results represent the first important steps in the analysis of self-objectification in real workplaces. Nevertheless, up until now no studies have verified the effect of critical work features, i.e. repetitiveness, fragmentation and other-direction, on self-objectification as well as its negative consequence on the decrease of belief in personal free will by considering a real workers' sample.

By integrating the empirical evidence of previous field research with the results of Chapter 3, the first aim of the present studies was to replicate the findings



of the effect of work features on belief in personal free will via self-objectification in real work settings, considering also the role of the other crucial objectifying antecedent: the perception of being objectified by superiors. Specifically, our purpose was to verify whether also this source of objectification would be related to a decrease of personal free will, and if this relationship would be mediated by self-objectification.

Additionally, in Study 2, we wanted to take another step forward in the study of the possible consequences of working self-objectification, by analysing its effect on workers well-being. A number of studies found that the critical working conditions, such as performing repetitive tasks, have detrimental effects on well-being (Häusser et al., 2014), individual motivation (Freude, Ullsperger, & Molle, 1995), and self-reported stress (Cox, Mackay, & Page, 1982). We think that the effect of critical working conditions on reduced levels of personal well-being can be explained by the increased tendency to self-objectify. Indeed, in the classic research on the phenomenon, self-objectification has been systematically found as related to a reduction of well-being on different dimensions (for reviews, see Calogero, Tantleff-Dunn, & Thompson, 2010; Moradi & Huang, 2008). Therefore, our purpose was to confirm the relationship between self-objectification and decreased well-being also in the work domain. We hypothesised that objectifying job features and the perceived objectification would lead to a decreased perception of well-being via the increased self-objectification.

Finally, Study 2 aimed to expand the knowledge on the antecedent factors of the phenomenon. In particular, we aimed to investigate, beside the objectifying job features and the perceived objectification, the role of another possible source of self-objectification: the precariousness and the related perceived job insecurity, a particular stressful factor that affects workers well-being (for a review, see De Witte, Pienaar, & De Cuyper, 2016).

### ***1.1 Precariousness, perceived job insecurity and well-being***

As introduced in Chapter 1, during the second half of the seventies the multinational corporations suffered from a major setback that led to a series of

dramatic changes for the employment conditions. The technological novelties and the recession promoted the raise of a more flexible labour market, associated to a decrease of social protection due to the declined influence of unions that contributed to the introduction of new forms of employment (Kalleberg, 2011; Vosko, 2011). These new forms were characterized by an increased job precariousness and by a deterioration of working conditions (Scott, 2004; Quinlan, Mayhew, & Bohle, 2001). The 2008 great recession further worsened the situation. For example, it had an impact on the increased unemployment and the decreased quality of jobs, leading to the growth of precarious and temporary job relationship even in the previously protected public sector (Benach, Vives, Amable, Vanroelen, Tarafa, & Muntaner, 2014). All these changes resulted in increased perceptions of job insecurity among workers (Daly, Hobijn, & Ni, 2013; Kalleberg, 2000, 2011). These perceived job insecurity affectes not only the new temporary workers, but also those permanent workers that survive to the job loss, that start to feel insecure about their situations, arriving to accept worst working conditions to remain employed (Fenwick & Tausig, 1994).

In the literature, perceived job insecurity is described as “a subjective phenomenon that concerns uncertainty about an involuntary loss of the current job in the future” (De Witte, 2005; Sverke, Hellgren, & Nasaal, 2002; in Griep et al., 2016, p.148). Research showed that job insecurity has significant negative consequences on health and psychological well-being (for a review, see De Witte, Piennar, & De Cuyper, 2016) with a particular impact on permanent workers. For example, it has been found that perceived job insecurity has particular relevant effects on permanent workers’ psychological complaints (Griep et al., 2016). Furthermore, facing job insecurity is related to decreased levels of job satisfaction and increased job exhaustion among those with permanent contract, while they remain relatively stable in temporary workers (De Cuyper & De Witte, 2007, 2008). Similarly, feeling insecure is related to higher experience of distress and poorer health in permanent employers and not in the temporary ones (e.g. Bernhard-Oettel, Sverke, & De Witte, 2005; De Cuyper & De Witte, 2005).

The detrimental consequences of job insecurity have been explained in different ways (see De Witte, Pienaar, & De Cuyper, 2016; Schreurs, van Emmerick, Notelaers, & De Witte, 2010). Some scholars refer to the violation of the work psychological contract (Rousseau, 1995), in which it is crucial the employer's guarantee of security in exchange of the employee's loyalty (Schreurs, van Emmerick, Notelaers, & De Witte, 2010). Workers thus perceive the experience of job insecurity as a break of the psychological contract with their employer (De Cuyper & De Witte, 2008) that has negative consequences for the well-being (Wanous, Poland, Premack, & Davis, 1992). In this line of research, different health-related outcomes have been found to be related to job insecurity, as for example psychological distress, anxiety, and depression (Roskies, Louis-Guerin, & Fournier, 1993). Furthermore, the detrimental consequence of job insecurity has been explained by the related frustration of the basic work function of fulfilling different manifest and latent needs, such as earning an income, having social contacts outside the family and to develop individually and socially (Jahoda 1982; Paul & Batinic 2010). The frustration of these functions has been showed to be associated with poor physical health and psychological well-being (e.g. McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Paul & Batinic 2010; Roelfs, Shor, Davidson, & Schwartz, 2012). In addition and crucially for our rationale, job insecurity implies a prolonged state of uncertainty (Dekker & Schaufeli 1995; Kasl, Gore, & Cobb, 1975) and uncontrollability (Vander Elst, De Cuyper, & De Witte, 2011; Vander Elst et al., 2014). This uncertainty leads to negative consequences for health and well-being. Indeed, it implicates a state in which people perceive themselves as not able to imagine the consequences of the events and of their actions (Milliken, 1987) and it involves feelings of powerlessness and perceptions of uncontrollability that are related to reduced levels of health (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004).

Based on these assumptions, we hypothesized that the perceived job insecurity would represent an important condition that may lead to an increased tendency to self-perceive as mere objects. The rationale for this prediction is based on two reasoning. First, as above-mentioned, job insecurity is characterized by the

loss of control over one's work and life (Vander Elst et al. 2011, 2014). This state of uncontrollability and uncertainty about the events usually characterized the state of objects, that are passive entities controlled by external forces, and not the state of the agents that manage their actions and foresee what is going to happen (Dennett, 1987; Michotte, 1946, 1963; Molina, Van de Walle, Condry, & Spelke, 2004; Wegner, 2002). Therefore, we believe that the state of job insecurity could affect the self-perception of workers as mere objects, and not agents, in terms of self-perception both as an instrument controlled by others and as being no more able, for example, to think and to plan, the mental states typical of human being. Second, the workers to which security is not guaranteed perceive to be treated by the employer as mere tools and so to be instrumentalized. As already shown in the literature (e.g. Baldissarri et al., 2014) the perception of being instrumentalized leads to higher tendency to be objectified. For these reasons, we supported the hypothesis that perceived job insecurity would lead to higher tendency to self-objectify and that this self-objectification can in turn explain the reduction of well-being related to perceived job insecurity.

## **2. Overview of the studies**

Our hypotheses were tested across two correlational studies in which participants were asked to fill in a survey concerning their work and their perceptions. All the participants were workers employed in the production lines of different companies located in Lombardia. Study 1 aimed to replicate and expand the previous laboratory studies in a real working setting. In particular, in this study we analysed the relationship between objectifying job features and perceived objectification, self-objectification and the belief in personal free will. Study 2 was implemented in order to consider a different outcome, the personal well-being, and to introduce the perceived job insecurity as a further source of self-objectification. In both the studies, we tested a model in which self-objectification, in terms of decreased self-attribution of human mental states and increased self-perceptions as instrument-like (vs. human-like), played the role of mediator in the relationship between the hypothesized predictor variables and the considered outcomes.

### **3. Study 1**

The first purpose of this study was to replicate the findings on belief in personal free will in a real work setting. To analyze the effect of the objectified work activities on self-objectification, we asked participants to rate the degree to which their job was characterized by the three critical features considered in the previous chapters: repetitiveness, fragmentation and other-direction. Therefore, we investigated the effect of a subjective perception of job activities as objectifying, and not an objective measure of objectifying activities. Furthermore, we considered the role of another variable that resulted to be related to self-objectification: the perception of being objectified by superiors. We expected that both the perception of the job features as more objectifying (that is repetitive, fragmented and other directed) and the perception of being objectified should be related to an increased tendency to self-objectify. This self-objectification should in turn be associated to a decrease of belief in personal free will.

#### ***3.1 Method***

##### *3.1.1. Participants.*

Three hundred and three workers (248 male) employed in different manufacturing industries of the territory of Lecco participated in the study voluntarily. Participants' age ranged from 20 to 62 years ( $M = 43.22$ ,  $SD = 9.63$ ). The time of employment ranged from a minimum of 6 months to a maximum of 42 years. All the participants worked at the production lines of the industries.

##### *3.1.2 Procedure and materials.*

Participants were involved into the study by the union's delegates of CGIL of Lecco, which administered individually to each participant the questionnaire, presented as a national survey on the "mood of the modern workers". Before fulfilling the scales described below, participants were asked some demographics, including age, sex, department and years of employment. At the conclusion of the study, all participants were thanked and fully debriefed.

*Perceived objectifying job features.* The workers' perception of their activities as characterized by objectifying job features was measured with six items ( $\alpha = .74$ ) adapted from the Job Diagnostic Survey (JDS; Hackman & Oldham, 1980). In particular the items concerned the three objectifying features considered in the previous studies: the repetitiveness (e.g., "The job is quite simple and repetitive"), the fragmentation, (e.g., "The job is arranged so that I have the chance to do an entire piece of work from beginning to end", *reverse item*) and the other-direction (e.g., "The job give me considerable opportunity for independence and freedom in how I do the work", *reverse item*). The participants were asked to rate the extent to which their job had these characteristics on a 7-point scale (1 = *not at all*; 7 = *extremely*). Higher scores on this scale indicated a higher perception of the activities as characterized by objectifying job features.

*Perceived objectification.* The adapted version of the *Objectification Scale* (Gruenfeld and colleagues, 2008) used by Baldissarri, Andrighetto and Volpato (2014) was used to measure workers' perception of being objectified by their superiors. Participants were asked to evaluate their relationship with their superior with nine items ( $\alpha = .74$ ) on a scale from 1 (*totally disagree*) to 7 (*completely agree*). Example items were: "My foreman appreciates me even when I am not useful to her/him"(*reverse item*); "My foreman looks for me only when she/he needs something"; "The importance that my foreman gives me depends entirely on my work skills"; "The relationship with my foreman is based on how much she/he likes me from a human point of view, rather than on how much I am productive" (*reverse item*). Higher scores on this scale indicated higher levels of perceived objectification.

*Self-objectification: SMSA and self-perceptions as being instrument-like.* Self-objectification was measured through the same measures used in Chapter 3. In particular, the Self-Mental State Attribution task (SMSA; Baldissarri et al., 2014), required participants to rate the extent to which they felt themselves able to experience 20 mental states ( $\alpha = .92$ ) during the activity. Mental states referred to perceptions (e.g., hearing), thoughts (e.g., reasoning), wishes (e.g., wishing), intentions (e.g., planning) and emotions (e.g., fear, pleasure). The items were rated on a 7-point scale (1 = *not at all*; 7 = *very much*). Furthermore, to measure self-

perceptions as instrument like (vs. human-like) the participants were asked to rate the extent to which they perceived themselves as similar (1 = *not at all*; 7 = *extremely*) to four instrument-related items (instrument, tool, thing, machine,  $\alpha = .90$ ) and four human-related items (human being, person, individual, subject,  $\alpha = .68$ ). The instrument score and the human score were combined into one index so that the higher scores indicated greater self-perception as instrument-like (vs. human-like).

*Belief in personal free will.* To measure the participants' belief in personal free will, we used the subscale (8 items;  $\alpha = .80$ ) of the Free Will and Determinism scale (FWD, Rakos et al., 2008) employed in the previous chapter. The participants were required to state the degree to which they believed they had free will (1 = *not at all*; 7 = *extremely*) after the activity. Sample items included "I am in charge of my actions even when my life's circumstances are difficult" and "I have free will".

### 3.2 Results and discussion

Table 1 presents correlations, means and standard deviations for each variable.

*Table 1. Correlations, means and standard deviations for each variable.*

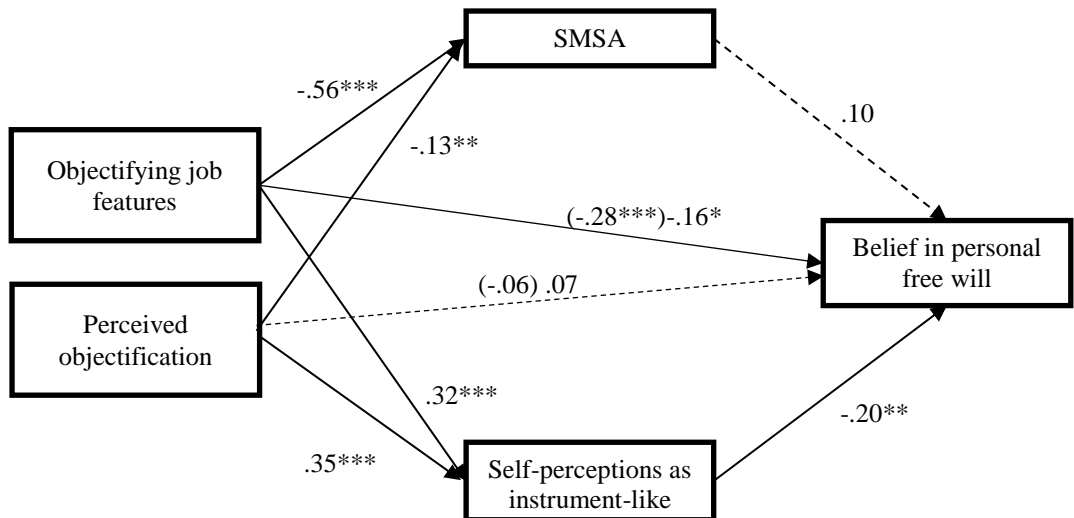
Variables	1	2	3	4	5
1. Objectifying job features	-				
2. Perceived objectification	.23***	-			
3. SMSA	-.59***	-.24***	-		
4. Self-perceptions as instrument-like	.40***	.42***	-.43***	-	
5. Belief in personal free will	-.28***	-.06	.29***	-.28***	-
<i>M</i>	4.06	4.62	3.69	-1.18	4.86
<i>SD</i>	1.06	1.07	1.11	2.69	0.99

*Note.* \*\*\*  $p \leq .001$ . SMSA abbreviation refers to the self-mental state attribution.

As expected, the perceived objectifying job features and the perceived objectification negatively correlated with SMSA and positively correlated with self-perceptions as instrument-like (vs. human-like). Furthermore, the objectifying job features were significantly related to a decrease of belief in personal free will, while perceived objectification did not result as directly associated with this belief. However, as expected the two self-objectification measures correlated with the belief in personal free will. Therefore, we expected to find significant indirect effects on free will via self-objectification from both the two considered independent variables: objectifying job features and perceived objectification.

To examine the prediction that perceived objectifying job features and perceived objectification would lead to a decreased belief in personal free will via self-objectification, we conducted a conditional process model using the PROCESS macro (Model 4) for SPSS with 5000 bootstrapping samples testing a model with multiple independent variables and multiple mediators (Hayes, 2013; see Figure 1).

Figure 1. Mediation model testing the indirect effects of perceived objectifying job features and perceived objectification on the belief in personal free will via self-perceptions as instrument-like (vs. human-like) and SMSA.



Note. SMSA = Self-Mental State Attribution. \*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$ . The values reflect standardized  $\beta$  coefficients.



Results showed that both the considered independent variables led to increased self-perceptions as instrument-like (objectifying job features:  $b = .82$ ,  $SE = .14$ ,  $t(2,270) = 5.98$ ,  $p < .001$ ; perceived objectification:  $b = .89$ ,  $SE = .13$ ,  $t(2,270) = 6.63$ ,  $p < .001$ ) and to a decrease in SMSA (objectifying job features:  $b = -.58$ ,  $SE = .05$ ,  $t(2,270) = -11.11$ ,  $p < .001$ ; perceived objectification:  $b = -.13$ ,  $SE = .05$ ,  $t(2,270) = -2.59$ ,  $p = .01$ ). In turn, the increased self-perceptions as instrument-like (vs. human-like) led to participants' decreased belief in personal free will,  $b = -.07$ ,  $SE = .03$ ,  $t(4,268) = -2.87$ ,  $p = .004$ , while in this model the decrease in SMSA was not significantly related to the decrease in belief in personal free will,  $b = .09$ ,  $SE = .07$ ,  $t(4,268) = 1.44$ ,  $p = .15$ . Consequently, the indirect effects of the two independent variables on the decreased belief in personal free will via SMSA were not significant (objectifying job features:  $a*b = -.06$ , 95% CI  $[-.15, .02]$ ; perceived objectification:  $a*b = -.01$ , 95% CI  $[-.04, .002]$ ). However, the mediational role of the self-perceptions as instrument-like were confirmed as shown by the significant indirect effects from objectifying job features,  $a*b = -.06$ , 95% CI  $[-.12, -.02]$ , and the perceived objectification,  $a*b = -.06$ , 95% CI  $[-.14, -.02]$ . Furthermore, when entered together in the multiple mediator model, the direct effect of objectifying job conditions on belief in personal free will decreased,  $b = -.15$ ,  $SE = .07$ ,  $t(4,268) = -2.21$ ,  $p = .03$ , suggesting a partial mediation of self-objectification in the relationship between job objectifying features and belief in personal free will<sup>9</sup>.

These findings partially confirmed our hypotheses. First, expanding the findings of Chapter 3, the analysis showed the role of the perceived objectification, i.e. the perception of being objectified by superiors, as a source of self-objectification (Baldissarri, Andrighetto, & Volpato, 2014) and, in turn, of decreased belief in personal free will. Perceived objectification was related to a decrease of self-

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<sup>9</sup> Two alternative models were tested in which we considered belief in personal free will as mediator and the two measures of self-objectification as final variables. In the models the indirect effects from objectified job features via belief in personal free will, on self-perceptions as instrument-like,  $a*b = .12$ , 95% CI  $[.03, .26]$ , and on SMSA,  $a*b = -.03$ , 95% CI  $[-.08, -.005]$ , were significant. However, at the same time, the direct effects of both the independent variables on the dependent variables still remain significant,  $p_s \leq .01$ . Furthermore, in both the models the indirect effects from perceived objectification were not significant, as it was not directly related to belief in personal free will. Thus, considering also the findings of Chapter 3, we believe that these results supported our proposed model.

attribution of mental states as well as to the increased self-perceptions as instrument-like (vs. human-like). Moreover, the results revealed also that perceived objectification has an indirect effect on the belief in personal free will via self-objectification.

Furthermore, the relationship between the objectifying job features and the belief in personal free will via self-objectification has been confirmed. However, with respect to the findings obtained in the lab studies (see Chapter 3), the direct effect on belief in personal free will still resulted to be significant, indicating a peculiar and direct link of the perception of work as objectifying with belief in personal free will. This could be due to the sample considered in this Study, which was composed by real workers. Probably, the fact of considering people that perform these kind of activities every day has brought out the strong direct link between critical job features and the belief to have free will, link that, instead, after only 20 minutes of lab activities resulted to be weaker in the mediational pattern. Therefore, we think that this result gives further support to the hypothesis, described in the previous chapter, that the belief in personal free will can be affected by the kind of activities that one performs.

Finally, the role of SMSA in this model appears to be only marginal and weaker than the self-perceptions as instrument-like. This result somewhat replicated the findings of Study 3 of Chapter 3, in which SMSA were marginally related to the belief in personal free will. Here instead the SMSA seemed to be not related with the final variable. However, it is noteworthy that when we tested a single mediator model considering only SMSA, the effect of SMSA on belief in personal free will resulted to be significant,  $b = .15$ ,  $SE = .06$ ,  $t(2,273) = 2.31$ ,  $p = .02$ , as well as the indirect effects from the independent variables via the SMSA (objectifying job features:  $a*b = -.09$ , 95% CI  $[-.18, -.01]$ ; perceived objectification:  $a*b = -.02$ , 95% CI  $[-.05, -.002]$ ). Therefore, following the discussion of Study 3 of the previous chapter, it could be that the strong relationship of belief in personal free will with job features and the predominant role of self-perceptions as instrument-like as mediator can explain the null results of SMSA in the presented model.

## **4. Study 2**

The first purpose of this study was to expand the knowledge on the potential consequences of self-objectification considering, as in Study 1, a real work setting. In particular, we aimed to verify whether self-objectification is related to decreased levels of well-being also in the work domain. The second aim concerned, instead, the analysis of the possible antecedents of self-objectification and, thus, of decreased well-being. As in Study 1, we considered perceived objectifying job features and perceived objectification. Furthermore, in this study we introduced another possible source of self-objectification, that is the perceived job insecurity. We expected that the perception of job features as more objectifying, the perception of being objectified by superiors and the perceived job insecurity should be all related to an increased tendency to self-objectify and to a decreased perception of personal well-being. Furthermore, self-objectification should mediate the effect of the predictor variables on well-being.

### **4.1 Method**

#### *4.1.1 Participants.*

One hundred and ninety-five workers (85 female) employed in the Lombardy branch of an international manufacturing industry of car's components participated voluntarily in the study. On the basis of a request done by the human resources manager that allowed us to submit the questionnaire to the workers, participants age were rated through ranges: 13,3% of the participants belongs to the 20-30 years range; 30,8% to 31-40 years range; 37,9% to 41-50 years range; 16,4% to 51-60 years range, 1% was over 61 years old and 0,5% was less than 20 years old. Participants were employed in the industry from a minimum of two months to a maximum of 36 years.

#### *4.1.2 Procedure and materials.*

An investigator administered individually to each participant a questionnaire, presented as a survey on the "mood of the modern workers." Before fulfilling the

scales described below, participants were asked some demographics, including age, sex, department and years of employment. At the conclusion of the study, all participants were thanked and fully debriefed.

*Perceived objectifying job features.* The workers' perception of their activities as characterized by objectifying job features (repetitiveness, fragmentation and other-direction) was measured with the same six items ( $\alpha = .79$ ) used in Study 1.

*Perceived objectification.* The same scale used in Study 1 was used to measure workers' perception of being objectified by their superiors. However the scale turned out to be not reliable ( $\alpha = .35$ ), so we used only seven ( $\alpha = .69$ ) of the nine items of the original scale.

*Perceived job insecurity.* Job insecurity was measured using four items ( $\alpha = .80$ ) taken from the scale of De Witte (2000; see Schreurs, van Emmerik, Notelaers, & De Witte, 2010). The items were: "I am sure that I will be able to keep my job" (*reverse item*); "There is a risk that I will lose my present job in the near future"; "I feel uncertain about the future of my job", "I think that I will lose my job in the near future." Participants rated each item on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

*Self-objectification: SMSA and self-perceptions as being instrument-like.* Self-objectification was measured through the same SMSA task ( $\alpha = .92$ ) and through the same 4 instrument-related ( $\alpha = .91$ ) and 4 human-related ( $\alpha = .70$ ) words used in Study 1. The instrument score and the human score were combined into one index so that the higher scores indicated greater self-perception as instrument-like (vs. human-like).

*Well-being.* To measure participants personal well-being we used the *Who-5 Well-Being Index* (Bech, 2004), the most used questionnaires to assess subjective psychological well-being, used also in organizational settings (for a review, see Topp, Østergaard, Søndergaard, & Bech, 2015). Participants were asked to rate how well 5 statements ( $\alpha = .88$ ; e.g. "I have felt cheerful and in good spirit", "I have felt active and vigorous") applied to him or her, considering the last two weeks, on a 7-point scale (1 = *never*, 7 = *everyday*).

## 4.2 Results and discussion

Table 2 presents correlations, means and standard deviations for each variable.

*Table 2. Correlations, means and standard deviations for each variable.*

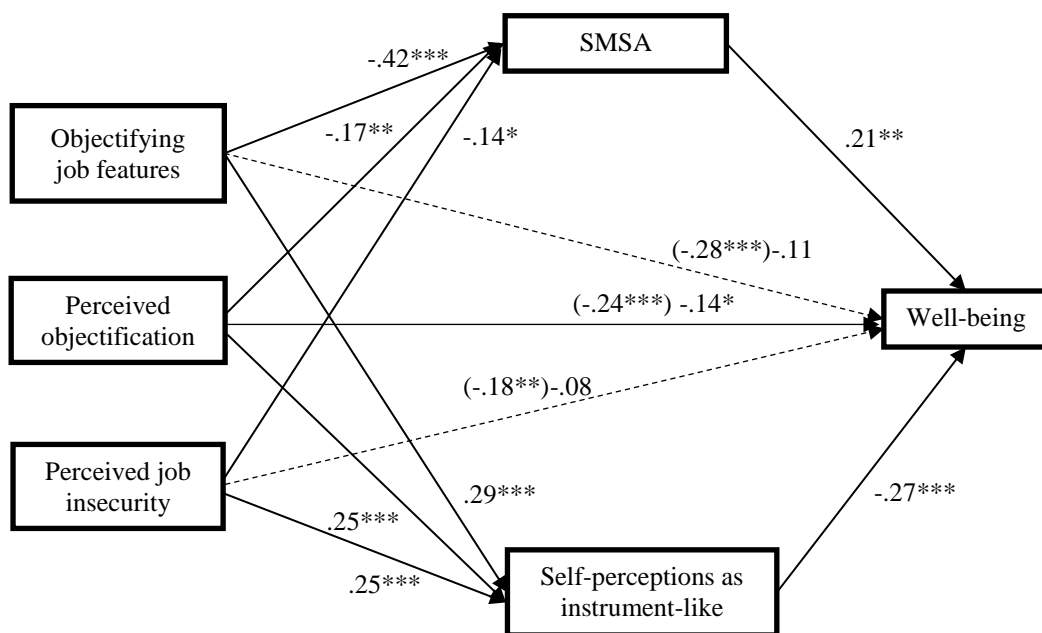
Variables	1	2	3	4	5	6
1. Objectifying job features	-					
2. Perceived objectification	.32***	-				
3. Perceived job insecurity	.27***	.27***	-			
4. SMSA	-.51***	-.34***	-.30***	-		
5. Self-perceptions as instrument-like	.44***	.41***	.39***	-.51***	-	
6. Well-being	-.40***	-.38***	-.32***	.48***	-.52***	
<i>M</i>	4.17	4.55	3.21	3.72	-1.28	4.29
<i>SD</i>	1.21	1.13	1.27	1.16	2.65	1.28

*Note.* \*\*\*  $p \leq .001$ . SMSA abbreviation refers to the self-mental state attribution.

As expected, the perceived objectifying job features and the perceived objectification negatively correlated with SMSA and positively correlated with self-perceptions as instrument-like. Furthermore, also perceived job insecurity showed significant correlation with the two dimensions of self-objectification. Moreover the table showed the expected relations on well-being. All the three considered predictors are negatively correlated with well-being, as well as the self-perceptions as instrument-like. Coherently, the self-attribution of human mental states is positively related to well-being.

The mediational roles of SMSA and self-perceptions of being instrument-like (vs. human-like) in the relationship between objectifying job features, perceived objectification, perceived job insecurity and well-being were then tested together. Similarly to Study 1, we tested a model with multiple independent variables and multiple mediators (Hayes, 2013; see Figure 2).

Figure 2. Mediation model testing the indirect effects of perceived objectifying job features, perceived objectification and perceived job insecurity on the well-being via self-perceptions as instrument-like (vs. human-like) and SMSA.



Note. SMSA = Self-Mental State Attribution. \*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$ . The values reflect standardized  $\beta$  coefficients.

Results showed that all the considered independent variables led to increased self-perceptions as instrument-like (objectifying job features:  $b = .65$ ,  $SE = .14$ ,  $t(3,190) = 4.64$ ,  $p < .001$ ; perceived objectification:  $b = .58$ ,  $SE = .15$ ,  $t(3,190) = 3.91$ ,  $p < .001$ ; perceived job insecurity:  $b = .52$ ,  $SE = .13$ ,  $t(3,190) = 3.93$ ,  $p < .001$ ) and to a decrease in SMSA (objectifying job features:  $b = -.40$ ,  $SE = .06$ ,  $t(3,190) = -6.52$ ,  $p < .001$ ; perceived objectification:  $b = -.18$ ,  $SE = .07$ ,  $t(3,190) = -2.69$ ,  $p = .008$ ; perceived job insecurity:  $b = -.13$ ,  $SE = .06$ ,  $t(3,190) = -2.13$ ,  $p = .03$ ). In turn, the increased self-perceptions as instrument-like (vs. human-like) led to the participants' decreased well-being,  $b = -.13$ ,  $SE = .04$ ,  $t(5,188) = -3.64$ ,  $p < .001$ , while the decrease in SMSA was significantly related to the decrease in well-being,  $b = .23$ ,  $SE = .08$ ,  $t(5,188) = 2.85$ ,  $p = .005$ . Crucially, confirming our mediational hypothesis, the indirect effects of the three predictor variables on the decreased well-

being via self-perceptions as instrument-like (objectifying job features:  $a*b = -.08$ , 95% CI [-.16, -.03]; perceived objectification:  $a*b = -.08$ , 95% CI [-.16, -.02]; perceived job insecurity:  $a*b = -.07$ , 95% CI [-.14, -.02]) and via SMSA (objectifying job features:  $a*b = -.09$ , 95% CI [-.19, -.03]; perceived objectification:  $a*b = -.04$ , 95% CI [-.10, -.01]; perceived job insecurity:  $a*b = -.03$ , 95% CI [-.07, -.005]) were significant. Furthermore, when entered together in the multiple mediator model, the direct effect of objectifying job features and of perceived job insecurity on well-being turned out to be non-significant,  $p_s > .12$ , suggesting a total mediation of self-objectification. The direct effect of perceived objectification instead decreased but still resulted significant,  $b = -.15$ ,  $SE = .07$ ,  $t(5,188) = -2.06$ ,  $p = .04$ , suggesting a partial mediation of self-objectification in the relationship between perceived objectification and well-being<sup>10</sup>.

These findings supported our hypotheses. First, the analysis confirmed the effect of objectifying job features and perceived objectification on the increased self-objectification. More interestingly, expanding the findings on the antecedents of self-objectification, the results showed the role of the perceived job insecurity as a source of self-objectification. As expected, perceived job insecurity was related to the decrease of self-attribution of mental states and to the increase of self-perceptions as instrument-like (vs. human-like).

Furthermore, the results showed that self-objectification mediated the effects of the predictor variables on a new considered consequence, the decrease of personal well-being. In particular, objectifying job features, perceived objectification and perceived job insecurity led to increased self-objectifying perceptions that in turn led to a reduction of personal well-being. However, in this study, the direct effect of

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<sup>10</sup> Two alternative models were tested in which we considered well-being as mediator and the two dimensions of self-objectification as final variables. In the models the indirect effects from the predictors variables via well-being on self-perceptions as instrument-like and on SMSA, were significant (the 95% CI did not contain the zero for all the indirect effects). However, at the same time, the direct effects of objectifying job features on SMSA and the direct effect of all the predictor variables on the self-perceptions as instrument-like still remain significant,  $p_s \leq .005$ , suggesting a partial mediation of well-being in almost all the considered relationship. Thus, these findings support our proposed model, in which self-objectification totally mediated the effect of two of the predictors variable, while partially mediated only one effect.

perceived objectification on well-being still resulted to be significant, showing a strong direct relationship between the perception of being objectified by superiors and workers well-being.

## **5. Conclusions**

The present work extends the knowledge about working self-objectification by analysing possible antecedents and consequences of this phenomenon in real work settings.

By integrating previous experimental and correlational findings, across two correlational studies we consistently found that the perception of job features as objectifying and the perception of being objectified by superiors are significantly related to self-objectification. Furthermore, we explored another source of self-objectification showing that also the perceived job insecurity plays a role in the increased tendency to self-objectify (Study 2). We explained this relationship as an internalization of the state of uncertainty resulted by job insecurity, that usually characterizes the state of objects and not that of agents. Thus, work can be considered objectifying in different ways: because of the execution of an activity characterized by critical job features, because of the internalization of the superiors objectifying gaze and, finally, because of the state of uncertainty and insecurity that leads to self-perceive as objects at the mercy of events.

Furthermore, these studies confirmed the role of self-objectification on belief in personal free will (Study 1) and expanded the knowledge on the possible consequences of self-objectification by verifying its effect on the reduction of personal well-being (Study 2). In particular, both the dimensions of self-objectification, self-attribution of human mental states and self-perceptions as instrument-like, are related to a decreased perception of personal well-being. These results provided the first evidence of the detrimental consequence of self-objectification on well-being in the work domain. Moreover, in both studies, we confirmed the role of self-objectification as mediator between the considered predictor variables and the two outcomes. With regards to this latter issue, it is noteworthy that the alternative models that we ruled out (see Notes 9 and 10)



revealed that belief in personal free will and well-being emerge as partial mediators of the relationship between the predictors and both dimensions of self-objectification, although they did not work in each of the considered links. As discussed in the previous chapter, we suppose that the feeling of being lacking in personal free will can strengthen the perception of being similar to an object, creating a reinforcing effect on self-objectification and thus triggering a vicious circle. In a similar vein, it is plausible to imagine that the perception of being lacking in well-being can reinforce the perception of being not able to experience different human mental states, feeling more similar to an object than a human being. Therefore, this finding may provide further support to the hypothesis of a bidirectional relation between self-objectification and its related outcomes. Moreover, the proposed models revealed a strong direct effect of objectifying job features on belief in personal free will and of perceived objectification on well-being. We think that the fact of considering a real workers sample, that are totally immersed in their workplace, contributed to point out the potential dangerousness of the critical work activities and of the perceived objectification. The latter result of a strong direct effect of the perception of being objectified on well-being is particularly interesting, as it shows the detrimental consequence of being subjected to objectifying gazes. These findings support the classic *Objectification Theory* (Fredrickson & Roberts, 1997) that identifies in the objectifying gaze a potent means that undermines individual self-perceptions through the internalization of the observer's perspective, that is through self-objectification.

To conclude, throughout the present studies, we analysed self-objectification in real work settings, considering workers that live in potentially objectifying situations every day. Our findings confirmed and expanded the previous knowledge on the phenomenon. Work objectifying activities, the perception of being objectified and the perceived job insecurity are dangerous factors that can lead to the emergence of tendencies of self-objectification. Furthermore, self-objectification has detrimental consequences for workers: it is related to decreased perceptions of personal free will and to reduced levels of well-being.



**CHAPTER FIVE**  
**GENERAL DISCUSSION**

## **1. Implications**

The present work makes a novel contribution to the objectification research, by empirically and systematically analysing, for the first time in literature, the processes underpinnings both other and self-objectification in the work domain.

By integrating the theoretical insights regarding the object-like treatment of factory workers with paradigms and measures commonly used in sexual objectification research, Chapter 2 documents for the first time that certain work activities are an important source of objectifying perceptions. In a set of laboratory studies, we showed that each of the critical features of factory work significantly affected the view of the worker as an instrument and as less able to experience human mental states. Coherently, we found that factory workers, unlike artisans, were perceived as more objectified when participants were asked to focus on the target's manual activities rather than on the target as a person. Our findings complement the previous work by Gruenfeld and colleagues (2008; see also Landau, Sullivan, Keefer, Rothschild, & Osman, 2012) on the motivational processes that lead to objectify others, by focusing on the cognitive process underpinnings this form of objectification. As discussed in the conclusions of the chapter, we believe that the salience of specific work activities triggered a process of inductive inference that leads respondents to judge the human target as a non-human actor. In particular, we conceptualized it as symmetrical to the cognitive process that triggers anthropomorphism (Waytz, Epley, & Cacioppo, 2010), the phenomenon by which animals that display humanlike movements are assimilated to human beings and attributed humanlike mental capacities (Morewedge, Preston, & Wegner, 2007). In the same vein, human beings that perform fragmented, repetitive and automatized actions may be assimilated to mere mindless and passive objects and, thus, be judged to have less human attributes. Therefore, on the basis of our findings and on the previous research, multiple factors concur to determine objectification of workers, involving cognitive (i.e., they are objectified because of the activities that they perform) and motivational (i.e., they are objectified in order to achieve one's own purposes) determinants, and we believe that an exhaustive analysis of this phenomenon should consider both these processes.

Furthermore, Chapter 2 contributes to expand the research on dehumanization, of which objectification represents only one possible form, in the work domain. Few other studies have analysed other forms of dehumanization related to different kind of work. For example, Loughnan and Haslam (2007) reported that the high-status occupational category of businessmen are stereotyped as cold or ambitious and dehumanised in a mechanistic way. Indeed, businessmen are seen as not able to feel emotions but still able to use their higher cognitive functions as rationality and logic. Here, instead, repetitive, fragmented and other-directed activities, that do not allow to exert higher cognitive functions, lead to see workers as unable to feel emotions and even to think or to plan, as cold objects. Therefore, we think our findings nicely complement those of Loughnan and Haslam (2007), identifying in objectification the most relevant process to describe why and when low-status workers are deprived of their humanity. It is noteworthy that a very recent line of research is analyzing the relationship between different stigmatized works (see Ashforth & Kreiner, 1999) and different forms of dehumanization. These studies confirmed that workers in subordinated states are objectified by laypeople. Furthermore, it has been found that workers whose activities are stigmatized as immoral are dehumanized in an animalistic way, while workers who performed in particularly degraded environments are biologized, that is associated to bacteria and disease (Valtorta, Baldissarri, Andrighetto, & Volpato, 2017). Thus, we believe that the interaction among occupational status, features of the work settings and activities might elicit different forms of dehumanising perceptions towards the workers, among which objectification is relevant, but not unique.

Similarly to research on sexual objectification that has focused on both the facets of this phenomenon (i.e., self-objectification and other-objectification; see Heflick & Goldenberg, 2014), we believe that research on the other-objectification of workers would go hand in hand with the analysis of the impact of work and its characteristics on the workers themselves. Coherently, we took a step forward in this field through the studies of the third and fourth Chapters.

In Chapter 3, across three laboratory studies, we analysed if performing an activity characterized by the same critical features analysed in Chapter 2 (e.g.

repetitiveness, fragmentation, other-direction) leads participants to self-objectify. Furthermore, we considered a possible consequence of self-objectification: the reduction of belief in personal free will. We consistently found that performing a manual, or a computer, objectifying task led participants to objectify themselves in terms of both decreased self-attribution of human mental states and increased self-perception of being instrument-like. Crucially, this increased self-objectification mediated the relationship between performing an objectifying activity and the participants' decreased belief in personal free will.

As discussed in Chapter 3, by integrating previous empirical findings with the theoretical insights regarding the objectification of workers in modern society, these studies revealed that certain characteristics of work are an important source of objectifying self-perceptions, and not just of other-objectification. Unlike past cross-sectional research (e.g., Baldissarri et al., 2014) that identified the superior's objectifying gaze as an important source of working self-objectification, here we experimentally showed that performing an activity characterized by specific work features evokes self-objectification per se. *Self-perception Theory* (Bem, 1967) can explain this process. As people define themselves also on the basis of their actions and behaviors, performing a mechanical and repetitive job, and thus acting as a mere passive tool, may contribute to a definition of the self as more similar to an object than a human being. Thus, objectifying work can have a dual effect on workers' identity: a direct effect due to performing an objectifying activity and an indirect effect due to the objectifying gaze elicited by the same objectifying activity. Furthermore, the effect are not related only to manual activity. The same process appears in more modern computer work activities, suggesting that the effect of repetitive, fragmented and other-directed task can lead to self-objectification also outside the classic factory work setting.

Moreover, our findings identified a relevant consequence of self-objectification that has not been explored so far: the decreased belief in personal free will. We believe that this finding has important theoretical and practical implications that go beyond the work domain. Indeed, belief in free will is an important dimension of human beings that pervades most domains of their everyday lives: it enables

people to pursue their self-interest and to make choice, it promotes prosocial behaviour and work performance, it leads to actively determining one's own behaviour instead to engage in mindless conformity (for a review, Baumeister & Monroe, 2014). Therefore, belief in having free will allows to be masters of one's own life and to choice for one's own interest. Our findings are in line with the theoretical reflections, exposed in Chapter 1, that highlight how worker has been transformed into an object, losing his freedom of action. People who perform objectifying activities feel as objects not able to make conscious choice, that is, according to Fromm (1941,1956), what the modern capitalism needs. Furthermore, we believe that this important consequence of self-objectification may pertain to a variety of domains, including the sexual one. That is, it is plausible to imagine that when women perceive themselves as mere tools to satisfy men's sexual desires, they consequently perceive themselves as less able to consciously and actively make decisions for their own lives.

These findings have been confirmed and further expanded through the field studies of Chapter 4, in which we provided first evidence that self-objectification is related, beyond the decreased belief in personal free will (Study 1), to reduced well-being also in the work domain (Study 2). In particular, both the dimensions of self-objectification, self-attribution of human mental states and self-perceptions as instrument-like, are related to a decreased perception of personal well-being. Furthermore, in both studies, we confirmed the role of self-objectification as mediator between the considered predictor variables, i.e. objectifying job features, perceived objectification by superiors (Study 1 and 2) and perceived job insecurity (Study 2), and the two outcomes. However, we do not exclude, as discussed in the previous chapters, that the feeling of being lacking in personal free will or in well-being can strengthen the perception of being similar to an object, creating a reinforcing effect on self-objectification and thus triggering a vicious circle. Moreover, the consideration of real workers sample, that work 8 hr a day and so are immersed in their workplace, contributed to point out a strong direct effect of objectifying job features on belief in personal free will as well as of perceived objectification on well-being. The latter result on the strong direct effect of the

perception of being objectified on well-being is particularly interesting, as it provides further evidence of the detrimental consequences of being subjected to objectifying gazes. These findings expand the conceptualization of the classic *Objectification Theory* (Fredrickson & Roberts, 1997) that identifies in the objectifying gaze a potent detrimental factor, by considering it in the work domain. As in the sexual domain, work objectifying gaze undermines individual self-perceptions and well-being through the internalization of the observer's perspective, that is through self-objectification.

Furthermore, we explored another source of self-objectification, showing that also the perceived job insecurity plays a role in the increased tendency to self-objectify (Study 2). As discussed in Chapter 4, we explained this relationship as an internalization of the state of uncertainty resulted by job insecurity. Indeed, the uncontrollability and uncertainty about the events usually characterized the state of objects, that are passive entities controlled by external forces, and not the state of the agents that manage their actions and foresee what is going to happen (Dennett, 1987; Michotte, 1946, 1963; Molina et al., 2004; Wegner, 2002). Therefore, we believe that the state of job insecurity could affect the self-perception of workers as mere objects. Moreover, when security is not guaranteed to the workers, they may perceive to be treated by the employer as mere tools and so to be instrumentalized. As already shown in the literature (e.g. Baldissarri et al., 2014) the perception of being instrumentalized leads to higher tendency to be objectified. Thus, work can be considered objectifying in different ways: because of the execution of an activity characterized by critical job features, because of the internalization of the superiors objectifying gaze and, finally, because of the state of uncertainty and insecurity that leads to self-perceive as objects at the mercy of events. These findings are particularly relevant for the current global scenario, in which the perception of insecurity is increasing. As reported by Schaufeli (2016), job insecurity has been indicated by the European Union as a “main psychosocial hazard” (2013, p. 13), and it is expected to increase in the near future for different reasons: economic hardship and stringency, globalization and increased competition (Schaufeli, 2016). These predictions are particularly daunting because the increased job insecurity, beyond its



widely demonstrated effect on decreased health and well-being (for a review see De Witte, Pienaar, & De Cuyper, 2016), could lead to increased self-objectifying perceptions, that is to a shared feeling among people of being no more human. The fact of feeling as less human involves other outcomes that are potentially detrimental for a society, such as aversive self-awareness or cognitive deconstructive states (see Bastian & Crimmon, 2014).

Beyond advancing the objectification literature, our findings provide an important contribution to the literature on organizational work research. Several studies in this field have shown, for example, that performing repetitive tasks has a detrimental effect on well-being (Häusser et al., 2014), individual motivation (Freude, Ullsperger, & Molle, 1995), and self-reported stress (Cox, Mackay, & Page, 1982), or that the perceived job insecurity has effect on health outcomes (De Witte, Pienaar, & De Cuyper, 2016). By extending these previous researches, we revealed that the perceived job insecurity, the perception to be objectified and the performing of repetitive, fragmented, and other-directed tasks affect also workers' self-perceptions as objects and, in turn, their belief to have free will and personal well-being. Therefore, our research is particularly relevant for companies because it shows further detrimental consequences of critical work settings. In particular, our findings suggest how difficult it can be to control these processes. Indeed, for example, the companies should limit the superiors' objectifying gaze and treatment towards subordinates in order to protect workers' well-being. Nevertheless, the intrinsic features of certain kind of work are factors that trigger this objectifying gaze, promoting the superiors' object-like treatment of workers. This generates a vicious circle that is hard to stop. However, our findings can have implications in suggesting to the companies and the policy makers what they can do in order to increase self-perceptions as human beings. If the objective features of work as repetitiveness or fragmentation can not be improved, the perception of being objectified and the perception of job insecurity can. Therefore, companies might invest in the supporting of human relationships and in the decrease of perceived insecurity. As suggested by Griep and colleagues, interventions on communication (e.g. de Vries & Balazs, 1997; Vander Elst et al., 2010), participation in decision making (Probst, 2005), and

perceived employability (De Cuyper et al., 2012) can reduce the negative effects of perceived job insecurity on employees' well-being and health (Jiang & Probst, 2013; Kirves et al., 2011; Vander Elst et al., 2011). Furthermore, these kinds of interventions can improve the relationships between superiors and subordinates, reducing the perceived objectification. These strategies may be of particular interest not only for the decrease of self-objectification of the subordinate workers, but also for the superiors' self-perceptions. Indeed, a recent study (Bastian et al., 2013) showed that the own harmful behavior can have effect on dehumanizing self-perception. Therefore, we think that also those superiors that mistreat their subordinates could feel less human. Future researches are needed, but we think that a particular attention to the workers' treatment should improve self-perceptions and well-being for all the members of the companies.

## **2. Limitations of the present research**

Despite the novelty of our findings, it is important to acknowledge that all our studies have a number of limitations that might restrict their generalizability and interpretation.

With regards to Chapter 2, it could be argued that the text vignettes (Study 1) might have arisen demand characteristics. Indeed, they explicitly made salient the presence (vs. the absence) of each feature to participants, hence possibly signalling to them how they were expected to respond to the following self-report measures of objectification. Thus, future research could replicate these findings by measuring objectification with implicit measures (see, e.g., Rudman & Mescher, 2012). Further, the experimental design of this study did not allow us to clearly establish whether our effects were actually driven by increased objectifying perceptions due to the explicitly presence of the features or, rather, by increased perceptions of humanness due to the explicit absence of the same features. To disambiguate this issue, it could be important a replication of the study with a baseline condition in which each feature may simply not be mentioned.

Studies 2 and 3 of Chapter 2 also have a number of methodological limitations. First, although the video clips presumably avoided demand

characteristics, they might have introduced some possible confounds. Indeed, videos are very rich stimuli that lead respondents to draw their own meaning from the exposure to a greater extent than other kind of material (Hughes & Huby, 2004). In particular, although we carefully selected and pre-tested both videos, we cannot exclude that the different participants' judgments of the targets were determined by other factors beyond the work activities, such as the presence of a machine in the factory worker video, the work wear of the target or the presumed social status of the target. Thus, future research should corroborate our findings by employing a variety of videos different from those used in the present work. Even better, it could be relevant to create ad hoc videos in which the possible effects of these confounding variables are minimized. A second issue of these studies concerns the manipulation of attentional focus that was employed to induce objectification. Indeed, one could argue that focusing on the more repetitive and monotonous work of the factory worker would require fewer cognitive resources than focusing on the activities performed by the artisan. Such different consume of cognitive resources may have affected the observed interaction effects. For instance, it is possible that the greater availability of resources after the exposure of the factory worker's video clip allowed participants to generate more critically informed judgments of the target than those generated after the exposure of the artisan video clip. Future research should more carefully check for the cognitive resources consumed by participants after the video exposure across the conditions. Alternatively, it would be important to induce this form of objectification by considering a different manipulation than the participants' attentional focus. A third issue is related to the fact that we used only the artisan target as comparison condition. Although we considered it a suitable comparison given the manual aspects of artisan labour, it is important to replicate our findings by taking into account different comparison work categories. Further, adding a control condition in which the features that we considered are performed by a target in a non-work (e.g., leisure) domain could be important to establish with more confidence whether our effects exclusively pertain the work domain. Finally, both the significant (i.e., factory worker target condition) and the null (i.e., artisan target condition) effects emerged in Study 2 should be interpreted with caution given the small sample

size of that study and its low statistical power (see Note 3, p. 56). Although these effects were replicated in Study 3 by employing a similar procedure, future research should verify the perceptions of instrumentality and humanness as a function of target and focus manipulation by employing a larger sample size.

Finally, it is noteworthy that in Studies 1 and 3 the mean ratings of instrumentality perceptions – despite varying according to the target and focus manipulation – were moderately low in all conditions, thus indicating a weak association of the target with instrument-related words. However, as previously mentioned it should be noted that our measure assessed the association between the target and instrumentality using a self-report measure, which may have been affected by the participants' desirability concerns (e.g., Crowne & Marlowe, 1964; Nederhof, 1985). Thus, greater associations between the factory worker and the concept of instrumentality may emerge in studies that use implicit techniques, which are less susceptible to motivated responding (see Gawronski & Bodenhausen, 2006).

With regards to Chapter 3, first, the procedures of our studies do not allow us to pinpoint what process in the ad hoc created activities actually triggered our findings. That is, we cannot exclude the possibility that, in the objectifying conditions, other variables would have increased participants self-objectification, above and beyond the critical features that we considered. For example, one could argue that the lower competence and lower creativity required by the objectifying activity could also explain our pattern of results. However, we believe that these two presumable confounding variables are conceptually included in the crucial feature of repetitiveness. That is, as mentioned in the chapter, repetitiveness by definition involves the exercise of the same few skills that, thus, require lower competence and less creative thinking than more varied activities. Instead, other possible confounding variables are conceptually separated by our critical features and should be controlled. For example, it is possible that an increase in participants' negative moods after the objectifying activity, compared with the non-objectifying one, could also explain our findings. However, a pilot study partially ruled out this possibility by showing a similar mood among participants who performed the objectifying activity of Study 3 and those who performed the non-objectifying activity (for more information on this

pilot study, see the Appendix 1). Nevertheless, we are aware that our studies cannot provide an exhaustive picture of the antecedents triggering self-objectification in the work domain. Future research is needed to deeply understand this phenomenon and to investigate other variables that we did not consider in our main and pilot studies. For example, the perception of isolation or the lack of feedback (Blauner, 1964; Hackman & Oldham, 1976) could be two further variables evoked by our manipulations that may have played a role in triggering self-objectification.

Second, it is important to note that all our ad hoc created activities were only 20 min long and that we assessed their short-term effects. However, we partially went beyond this limit with Chapter 4, in which we investigated the objectifying self-perceptions of real workers performing these activities for 8 hr a day.

Nevertheless, with regards to Chapter 4, although the links between our variables are consistent with previous findings, the correlational nature of our data does not allow us to draw causal inferences. It is likely that the relationships between our constructs are bidirectional and dynamics. A longitudinal study would be an important next step towards determining the directions of these paths, because it would permit stronger inferences about causality of tested links.

Furthermore, we explored limited outcomes of self-objectification, in particular the measure of well-being that we used concerns only a subjective personal well-being, while we did not consider other kinds of related work well-beings. It is plausible that higher levels of self-objectification would lead to a wide range of detrimental consequences, such as diminished job fulfillment, job satisfaction or work engagement.

Finally, also the measure of job insecurity that we used is particularly focused only on one of its facets, that is the threat of job loss. Actually, insecurity extends beyond the only fear to job loss, including the threat of loss of other important factors, such as income, social contacts, help with structuring time, and opportunities to develop skills (see Benach et al., 2014). Therefore, a multiple dimensions measure of job insecurity should be used in future research to have a broader understanding of its relationship with self-objectification.

### **3. Objectification at work: future directions**

Although our set of studies provided the first evidence that work is an important source of other and self-objectification, further research is needed to obtain a complete picture of this phenomenon.

For example, future directions should analyse the phenomenon of other-objectification by integrating the motivational and the cognitive processes that drive working objectification. Objectification indeed can be triggered by a hierarchical relationship in which powerful roles lead to objectify powerless workers (Gruenfeld et al., 2008; but see also Landau et al., 2012), or by a cognitive worker-object association due to the critical performed activities requested by work. An interesting future step may be to study the interaction between these two processes, hypothesizing a dangerous exponential effect on the object-like treatment of workers. Working objectification should be also investigated considering further relevant dimensions, such as the reduction of the worker to body and to silence (Langton, 2009; see also Auzoult & Personnaz, 2016). Indeed, perceiving the workers as mere bodies that are unable to speak may be another dangerous way to deny humanness that could lead to detrimental consequences as, for example, a scarce consideration of them as active actors in the organizational decision processes.

Coherently, to understand the possible impact of other-objectification in the work domain, future research should also verify if other-objectification can influence company policies and decisions toward workers. A first step in this direction has been done by Landau and colleagues (2012). In one study, the authors found that participants assigned to managerial roles, characterized by uncertainty, tended to punish the subordinates that violated company policy as a consequence of an increased tendency to objectify them. Therefore, these objectifying perceptions could effectively lead to negative consequences at a more interpersonal level, for example, in the exploitation of workers by superiors, resulting in a worsening of work conditions. Such deterioration, in turn, could increase objectifying perceptions that can trigger a detrimental vicious circle. Longitudinal field studies could be useful in promoting the understanding of the relationship between the variables examined in our studies and the evolution of a possible process that links objectification to the

mistreatment of workers. Furthermore, as above-mentioned, future research should pay attention also to the dehumanizing effect that the critical work setting and the objectifying behaviour can have on the superiors that objectify workers, by expanding the research on the effect of own harmful behavior on self-dehumanization (Bastian et al., 2013).

Future research should also extend our findings on other and self-objectification considering different work settings. In today's labour market, a number of jobs (see also the computer activity in Chapter 3), such as the so called modern factories call centers (e.g. Pierantoni, Guarnieri, Rouvery, Piccardo, & Genovesi, 2007) or the Amazon's stocks, are characterised by features similar to those of industrial settings in their use of standardised, repetitive and fragmented activities or severe forms of performance control, fast rhythms of work, a sense of uncertainty inherent to the company organization. Thus, it is crucial to analyse whether the same features that we analysed here would operate similarly to increase the other and self-objectification of workers across different work settings. It is also plausible to imagine that work features in addition to those we explored in Chapter 2 (Study 1) could significantly affect objectifying perceptions of workers. Future studies should identify such features.

Furthermore, we believe that it would be interesting to extend these findings considering the new forms of temporary contracts that have been found to have important impact on health (e.g. Moscone, Tosetti, & Vittadini, 2016; for a review, see Benach et al., 2014). Even though job insecurity affects permanent workers as well as the temporaries, precariousness and the fact of having temporary contract, in which insecurity is considered as an objective state, could be a further factor triggering objectification. The view of the temporary workers merely as useful resources replaceable, adaptable and flexible (Andreoni, 2005) somewhat recalls the Nussbaum's facets of objectification (1995) and may thus promote objectified perceptions of workers, as well as increase their tendencies to objectify themselves.

Future research needs also to analyse the possible several individual differences, as for example the growth need (Hackman & Holdman, 1976) or the work centrality (Paullay et al., 1994), that can moderate the internalization of

objectification, and also the several strategies that workers can use in the definition of their self to build positive identities (see, for example, Ashforth & Kreiner, 1999). This line of research is fundamental to understand the impact of objectification on workers' identity and identify potential protective factors, such as a high level of self-consciousness (Auzoult & Personnaz, 2016), that can prevent workers from feeling like objects, rather than human beings, even if they work in critical objectifying conditions.

Finally, an interesting future direction would be to expand our knowledge on the consequences of self-objectification on the workers' social presence and activism. In particular, Saguy and colleagues (2010) found that objectification leads women to speak less and to narrow their presence in social interactions. Furthermore, Calogero (2013) showed that sexual self-objectification is related to increased system justification beliefs that in turn leads to decreased activist intentions. Future research should analyse these relationships also in the work domain, in which the role of belief in personal free will could be crucial. Like other forms of dehumanisation, objectification serves to legitimise inequalities and to justify dominant behaviours (Opatow, 1990). In particular, the process of self-objectification may lead workers to be inclined to adapt themselves to the situation and to accept the status quo. In this process, belief in free will can have a main role. Disbelief in free will leads to a decreased preference for actively determine one's own behaviour opting to engage in mindless conformity (Alquist, Ainsworth, & Baumeister, 2013). Such a belief undermines motivation to exert oneself and to change the existing situation (Baumeister & Monroe, 2014). Self-objectification could limit workers' social mobility by undermining their belief in free will and so their motivation to engage in social action that would challenge economic and social inequalities. In this way, workers' self-objectification may operate as an unconscious means of system justification leading to fewer inclinations to social protests (see Calogero, 2013). Thus, through reduced belief in personal free will, self-objectification due to work-related tasks could inhibit workers' tendency to engage in social actions to change the existing status quo. Actually, this process appears in the erosion of the collective institutions such as the unions (e.g. Sharpe, 2016), and in the



disappearance of the industrial workers from the social scenario (Chicchi, 2003). It would seem that the process described by Gramsci (1934) is definitively over. Humanity and spirituality, which best manifested through the productive creation, have been "crashed" by capitalism: workplaces and the factory have actually become impersonal places where interpersonal relations are banned. Future research is needed in order to better understand the relationship between self-objectification and the reduced active social presence of workers.



## CONCLUSIONS

This research contributes to expanding the knowledge on the antecedents and the consequences of other and self-objectification in the work domain. Although this form of objectification is highly relevant in modern human society, social psychological literature has largely neglected it so far. However, work is one of the central aspects of human life; therefore, understanding the conditions under which work becomes a source of objectification or self-objectification is crucial, as well as the understanding the consequences that these two facets have for the objectified and the self-objectified target.

Our findings support the idea that some works do not respond to the basic needs for individual recognition, social self-esteem and identity; rather, they lead workers to perceive themselves as lacking human characteristics. Furthermore, this research may meaningfully help to better interpret the workers' current situations and why they often tend to accept the existing status quo. Like all other forms of dehumanisation, objectification serves to legitimise inequalities and to justify dominant behaviours. Dehumanizing perceptions of workers are critical factors in maintaining the existing critical situation (Volpato, Andrighetto, & Baldissarri, 2017). The objectification of individuals who perform dangerous, precarious and undignified jobs is functional for making such jobs socially acceptable and justifies the fact that these individuals are not treated as human beings but excluded, at least partially, from the moral community (Opatow, 1990). In times of economic crisis, such as the present, social disparities between individuals and social classes increase. In this sense, the objectification of workers may significantly contribute to exacerbate these disparities and to justify the worsening of life and working conditions among people in disadvantaged social classes. Thus, studying the conditions under which work becomes an "enemy" for workers and transforms them into mere objects is a compelling task for scholars. We believe psychosocial and organizational research should join efforts to increase the understanding of the antecedents and consequences of workers' objectification. In particular, a greater understanding of the impact of this phenomenon on workers' identity is essential in

order to prevent the negative consequences of particularly alienating work environments and encourage the development of labor policies aimed at avoiding workers' social exclusion and promoting their well-being.

In conclusion, the present research supports the analysis proposed by several eminent scholars (e.g. Arendt, 1958; Fromm, 1974; Marx, 1844). Work can reduce man to an object and this transformation affects his well-being and his belief to have personal free will. In particular, the assumptions stated by Fromm seem to be very actual. Modern capitalism needs men who feel free and independent but that, at the same time and in an unaware manner, need and want to be commanded, adapting themselves to the modern machine that has the only purpose of producing more (Fromm, 1974). The radical fragmentation of work leads to an organization in which man becomes a depersonalized cog, prisoner of the pace of the production and of the economy. In this process of objectification, that leads man to interiorize what the system wants from him (that is, to be a tool unable to think autonomously, needy someone that could make choice for him) man lost his freedom. In this way, modern man has been transformed into a mere and interchangeable "commodity" (Fromm, 1956).

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## APPENDIX

### **Chapter 3. Self-Objectification at work: the effect of work activities on self-objectification and its consequences.**

#### ***Study 3: Pilot Study***

A pilot study was conducted to control to what extent possible confounding variables are involved in the manipulation used in Study 3.

The first three variables that we considered - perception of time-pressure, competence and creativity - are actually three variables that we think are conceptually included into repetitiveness, fragmentation and other-direction. Therefore, we did not consider them as confounding variables, but as an integral part of the dimensions that we wanted to manipulate and so we expected a different perception of these variables depending on the experimental condition. In particular, we believe that time pressure is included in the other-direction feature and in how we operationalized it (i.e., by manipulating the presence of a timer, thus pushing participants to follow an external pace of work). Instead, perceived competence is intrinsically related with repetitiveness and fragmentation, as they decrease by definition the competence needed to perform the work activity. Similarly, perceived creativity is conceptually tightly linked with each of the three features, as they imply by definition a decreased use of creative thinking.

The other variables that we considered are instead related to the objectification process and can be considered as effective confounding variables: the perception of status and accountability, the decrease of flow experiences, the increase of negative mood (e.g. Fredrickson & Roberts, 1997; Harper & Tiggemann, 2008; Szymanski & Henning, 2007; Tiggemann & Kuring 2004).

#### Method

##### *Participants and Procedure*

Fifty-one volunteers (27 females) participated in the study. The participants' ages ranged from 18 to 73 years ( $M = 28.71$ ,  $SD = 12.74$ ). The participants were individually examined under experimenter supervision and were first randomly

assigned to one of the two experimental conditions (objectifying vs. non-objectifying activity). Similar to the main studies, the study was introduced as a research on recruitment. After performing the activity (see Chapter 3, Study 3, 5.1.2 *Procedure and materials* section), participants evaluated it on the following measures.

### *Measures*

*Repetitiveness, fragmentation and other-direction.* The participants judged the extent to which they perceived the activity as repetitive, fragmented and other-directed through a single item for each dimension, ranging from 1 (*not at all*) to 7 (*extremely*).

*Time pressure.* The participants rated on a 7-point scale (1= *not at all*; 7 = *extremely*) the extent to which during the activity they felt pressured and urged (2 items;  $r = .81, p < .001$ ) by the pace of work.

*Competence.* Participants were asked to indicate the degree to which the activity required competence and how many skills were needed to perform it ( $r = .80, p < .001$ ; 1 = *very a few*; 7 = *a lot*).

*Creativity.* The participants judged the extent to which they perceived the activity as creative and the extent to which it allowed them to release their creativity ( $r = .92, p < .001$ ) on a 7-point scale (1= *not at all*; 7 = *extremely*).

*Flow experience.* Three items adapted by the Flow State Scale (Jackson & Marsh, 1996) measured the extent to which the participants had a flow experience during the activity. The three items were the following: “I was completely focused on the task”; “I was not worried about what others may have been thinking of me”; “I was so engaged and involved that it was like time stopped” ( $\alpha = .53$ ; 1 = *totally disagree*, 7= *totally agree*).

*Status.* To rate the perception of status, the participants were asked to which socio-economic status they would expect to belong if they imagined to perform this activity in the real life (1 = *low*; 5 = *high*).

*Accountability.* The participants rated the extent to which they felt accountable for the activity they did and the extent to which this activity, if conducted in the real life, would require them to be accountable ( $r = .60, p < .001$ ; 1= *not at all*; 7 = *extremely*).



*Mood.* As in Harper & Tiggemann (2008), negative mood was assessed by considering the following emotions: anxiety, depression, happiness (R), anger and confidence (R). Participants were asked to rate the extent to which they felt (1 = *not at all*, 7 = *extremely*) the above emotions during the activity ( $\alpha = .61$ ) and after the activity ( $\alpha = .65$ ).

## Results and discussion

A series of independent *t*-test was conducted to verify whether each of the considered variables differed depending on the experimental condition (objectifying vs. non-objectifying activity).

As expected, the participants rated the objectifying activity as more repetitive ( $M = 6.65$ ,  $SD = .71$ ), fragmented ( $M = 5.22$ ,  $SD = 1.51$ ) and other-directed ( $M = 5.96$ ,  $SD = 1.33$ ) than the non-objectifying one (respectively:  $M = 4.32$ ,  $SD = 1.36$ ;  $M = 4.39$ ,  $SD = 1.34$ ;  $M = 4.21$ ,  $SD = 1.95$ ;  $t_s(49) \geq 2.07$ ,  $p_s \leq .04$ ,  $d_s \geq .58$ ). Similarly, they judged the objectifying activity as more time pressured ( $M = 4.78$ ,  $SD = 1.80$ ), less creative ( $M = 1.46$ ,  $SD = .78$ ) and as requiring lower competence ( $M = 2.72$ ,  $SD = 1.62$ ) than the non-objectifying one (respectively:  $M = 3.39$ ,  $SD = 1.68$ ;  $M = 2.79$ ,  $SD = 1.46$ ;  $M = 4.25$ ,  $SD = 1.33$ ;  $t_s(49) \geq 2.85$ ,  $p_s \leq .006$ ,  $d_s \geq .79$ ).

In contrast, participants reported no significant different ratings on flow experience ( $M_{obj} = 3.84$ ,  $SD_{obj} = 1.31$ ;  $M_{n-obj} = 4.38$ ,  $SD_{n-obj} = 1.34$ ), status ( $M_{obj} = 3.17$ ,  $SD_{obj} = 1.27$ ;  $M_{n-obj} = 3.79$ ,  $SD_{n-obj} = 1.07$ ), accountability ( $M_{obj} = 4.39$ ,  $SD_{obj} = 1.48$ ;  $M_{n-obj} = 4.57$ ,  $SD_{n-obj} = 1.46$ ) and mood during ( $M_{obj} = 3.45$ ,  $SD_{obj} = .99$ ;  $M_{n-obj} = 3.11$ ,  $SD_{n-obj} = .96$ ) and after the activity ( $M_{obj} = 2.65$ ,  $SD_{obj} = .67$ ;  $M_{n-obj} = 3.06$ ,  $SD_{n-obj} = 1.07$ ), all  $t_s(49) \leq 1.87$ ,  $p_s \geq .07$ ,  $d_s \leq .52$ .

Thus, the results of this pilot study revealed that the two activities – beyond our critical features – differed significantly on time pressure, creativity and competence. However, as explained above and in the main text, we believe that these variables hardly account for the results of our studies, as they constitute an integral part of the crucial features that we considered. Indeed, time pressure can be considered as a facet of the other-direction, creativity and competence as cognitive facets included in all the crucial features that we considered. In contrast, the results

did not reveal any significant differences regarding the other presumably confounding variables (e.g. the participants' mood during and after the activity) thus suggesting these variables were indeed not involved in our manipulation.

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