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## Workaholism: Its definition and nature

*Itzhak Harpaz and Raphael Snir*

### ABSTRACT

The term 'workaholism' is widely used, but there is little consensus about its meaning, beyond that of its core element: a substantial investment in work. Following Snir and Zohar, workaholism was first defined in the present study as the individual's steady and considerable allocation of time to work-related activities and thoughts, which does not derive from external necessities. Subsequently, it was measured as time invested in work, while controlling the financial needs for this investment. The relation between workaholism and possible attitudinal (meaning of work indices), demographic (gender, marital status), and situational (occupation type, employment sector) variables was examined through two representative samples of the Israeli labor force. The following predictor variables were significantly related to workaholism: work centrality, economic orientation, occupation type, employment sector and gender. From those variables, gender was found to be the strongest predictor – that is, men, in comparison with women, have a higher likelihood of being workaholics. Moreover, married women worked fewer hours per week than unmarried women, while married men worked more hours per week than unmarried men. The theoretical contribution of the above findings, and of the other study's findings, to the understanding of workaholism is discussed.

**KEYWORDS** meaning of work ■ workaholism

**Our understanding of work and its nature has attracted a great deal of attention recently, due to dynamic changes in working patterns, employment**

uncertainty, and transformations that have taken place in the meaning of work (Harpaz, 1999). During the 1970s and early 1980s, there were some concerns that the value of work in western society had been eroded and that a growing involvement with leisure activities and comfort had replaced the traditional work ethic (Cherrington, 1980; Harpaz, 1988; Vecchio, 1980). Recently, however, there have been many indications that the work ethic remains strong and for some people it is even growing (Abbas et al., 1995; Lipset, 1992; Tennesen, 1994). In certain situations, individuals may over-commit their energies and their time to their working lives. This overcommitment to work has been used in the literature to describe the notion of 'workaholism' (Seybold & Salomone, 1994).

The objective of this article is to gain better understanding and knowledge regarding the phenomenon of workaholism.

The term 'workaholic', coined by Oates (1971), refers to people whose need to work has become so exaggerated that it may constitute a danger to their health, personal happiness, interpersonal relations and social functioning (Oates, 1971). Although considerable attention has been devoted to the concept of workaholism in recent years (Fassel, 1990; Garfield, 1987; Kiechel, 1989a, b; Killinger, 1991; Klafft & Kleiner, 1988; Koonce, 1998; Machlowitz, 1980; Waddell, 1993), little empirical research has been undertaken to further our understanding of this phenomenon (e.g. Burke, 1999a, b, c; Doerfler & Kammer, 1986; Porter, 2001; Robinson & Post, 1995, 1997; Snir & Zohar, 2000; Spence & Robbins, 1992). Most writings have been anecdotal and clinical (e.g. Fassel, 1990; Killinger, 1991; Oates, 1971; Schaeff & Fassel, 1988). Basic questions of definition have not been addressed and measurement concerns have been neglected (Scott et al., 1997).

Although the term workaholism is widely used, there is very little consensus about its meaning, beyond that of its core element – a substantial investment in work. Mosier (1983) defined workaholics simply as those who work at least 50 hours a week. Some writers view workaholism in positive terms (Cantarow, 1979; Machlowitz, 1980; Sprankle & Ebel, 1987). For example, Machlowitz (1980) conducted a qualitative interview and study of more than 100 workaholics and found them to be satisfied with their lives. She prefers to view workaholism as an approach or an attitude toward working, rather than as the amount of time spent at work, since workaholics continue to think about work even when they are not working. Cantarow (1979: 56) speculated that the 'joy of creativity' is an element of the workaholic personality. She also stressed that workaholics seek 'passionate involvement and gratification' through work (Cantarow, 1979: 58). Others view workaholism negatively (Cherrington, 1980; Killinger, 1991; Oates, 1971; Porter, 1996; Robinson, 1989, 1997; Schaeff & Fassel, 1988). For example,

Cherrington (1980) sees workaholism as an irrational commitment to excessive work. These writers equate workaholism with other addictions and have focused on its deleterious aspects. Those who view workaholism favorably usually encourage it; while those who oppose it tend to discourage it.

Some researchers have proposed the existence of different types of workaholic behavior patterns, each having potentially different antecedents and associations with job performance, and work and life outcomes (Naughton, 1987; Scott et al., 1997; Spence & Robbins, 1992). Naughton (1987) presents a typology of workaholism based on the dimensions of career commitment and on obsessive-compulsive tendencies. Job-involved workaholics (high work commitment, low obsession-compulsion) are hypothesized to perform well in demanding jobs and be highly job satisfied, with low interest in non-work activities. Compulsive workaholics (high work commitment, high obsession-compulsion) are hypothesized to be potentially poor performers (staff problems resulting from impatience and ritualized work habits).

Spence and Robbins (1992) define workaholism based on their notion of a 'workaholic triad', which consists of three properties: work involvement, a feeling of being compelled to work, and work enjoyment. Workaholics score high on work involvement and on feelings of being compelled to work, and low on work enjoyment. In contrast, work enthusiasts score high on work involvement and work enjoyment, and low on the compulsion to work. Enthusiastic workaholics score high on all three components. In their research, workaholics were found to score higher than work enthusiasts on measures of perfectionism, non-delegation of responsibility, and job stress. They also scored higher on a measure of health complaints.

Scott et al. (1997) identify three types of workaholism patterns: compulsive-dependent, perfectionist, and achievement-oriented. They suggest that compulsive-dependent workaholism is positively related to levels of anxiety, stress, and physical and psychological problems; and negatively related to job performance, and job and life satisfaction. Perfectionist workaholism (when there are inadequate opportunities for the workaholic to gain control) is supposed to be positively related to levels of stress, physical and psychological problems, and hostile interpersonal relationships, as well as to voluntary turnover and absenteeism. It is also supposed to be negatively related to job satisfaction and performance (when the job requires overview and perspective). Finally, achievement-oriented workaholism is positively related to job and life satisfaction (when there are organizational rewards for achievement and personal demands are low), physical and psychological health, job performance, and pro-social behavior. It is also supposed to be negatively related to stress and voluntary turnover (when there are organizational rewards for achievement).

In summary, the three main alternative views concerning workaholism (the positive view, the negative view, and proposing the existence of different types of workaholism) are presented in Table 1.

Snir and Zohar (2000) define workaholism as the individual's steady and considerable allocation of time to work-related activities and thoughts, which does not derive from external necessities. This definition, compared with others in the literature, has several advantages. First, it includes the prominent core element of workaholism: a substantial behavioral and cognitive investment in work, without determining a priori whether workaholism produces positive, negative, or mixed consequences for workaholics, their families and their work environment. Second, this substantial behavioral and cognitive investment in work has to be steady; that is, it should not result from a temporary increase in workload. In addition, this definition considers external necessities that might foster workaholism. According to Schneider's attraction-selection-attrition theory (Schneider, 1987; Schneider et al., 1995), different kinds of organizations attract, select, and retain different kinds of people. Porter (1996) claims that there are certain organizational cultures in which long hours and 'sacrifices' are widely believed to be required in order to achieve success and advancement. Over time, the process of self-selection, employer recruitment-selection, socialization and reward systems would seem to build toward a situation in which workaholics can play out their tendencies more easily in some organizations than in others. Thus, based on the rationale of Porter (1996), Schneider (1987) and Snir (1998) claims that both situational and personality factors are important for the

**Table 1** The main alternative views concerning workaholism

<i>Workaholism as a positive phenomenon</i>	<i>Workaholism as a negative phenomenon</i>	<i>Existence of different types of workaholics</i>
Workaholism as derived from the love of work (Cantarow, 1979)	Workaholism as irrational commitment to excessive work (Cherrington, 1980)	Job-involved, compulsive (Naughton, 1987)
Workaholism as an intrinsic desire to work long and hard (Machlowitz, 1980)	Workaholism as an addiction (Killinger, 1991; Oates, 1971; Porter, 1996; Robinson, 1989, 1997; Schaeff & Fassel, 1988)	Workaholic, enthusiastic workaholic (work enthusiast not regarded as a workaholic) (Spence & Robbins, 1992)
		Compulsive-dependent, perfectionist, achievement oriented (Scott et al., 1997)

understanding of workaholism. However, while working overtime in order to pay debts or working long hours so as to advance one's career (e.g. a medical residency) can be considered as external necessities, organizational norms or job requirements need not be, since, at least in the long term, alternative less demanding workplaces/jobs might be available. As Scott et al. (1997: 295) point out, 'individuals who continue to work many hours and think about work excessively are appropriately viewed as workaholics when other organizations that might hire them would not require such devotion'.

The fourth advantage of Snir and Zohar's (2000) definition is that it is not based on work attitudes or values. As noted, the prominent core element of workaholism refers to a pattern of substantial behavioral and cognitive investment in work; and not to an attitude or a belief about work. Furthermore, it has been suggested that a conceptual definition should be broad, yet clearly bounded and not mixed up with other concepts (Osigweh, 1989). In this respect, a major flaw of an attitude-based definition of workaholism is that it might be indistinguishable from other well-established concepts – such as work centrality or job involvement and satisfaction. For example, defining workaholism based, *inter alia*, on work enjoyment (Spence & Robbins, 1992), and examining its relations to positive work outcomes – such as job satisfaction – might be problematic. One should also note that there is no consensus concerning the differences between concepts such as work ethic, work values, work commitment, work involvement, and work centrality (Morrow, 1983).

There has been scant empirical research on workaholism. The present study builds on previous work as well as an extension to new areas. Given the advantages of the definition of workaholism proposed by Snir and Zohar (2000), this definition will be used throughout the article. The goal of this study is to enhance our knowledge regarding workaholism by examining its relations with possible major attitudinal (meaning of work indices), demographic (gender, marital status), and situational (occupation type, employment sector) variables.

## Conceptualization of the meaning of work

Despite the relatively recent interest in this topic, a well-articulated theory of the meaning of work (MOW) has not yet been developed. The pioneering classic project of the Meaning of Work International Research Team resulted only in a heuristic model, based on the conception that the meaning of work is determined by the choices and experiences of individuals and by the organizational and environmental context in which they work and live

(MOW – International Research Team, 1987). The conceptualization presented here is based on the MOW research project, which was carried out comparatively in eight countries (Belgium, Britain, Japan, the Netherlands, the USA, West Germany, former Yugoslavia and Israel). It portrays the meaning of work in terms of six major notions or indices. Four of them are relevant for the present study: *work centrality*, *expressive orientation*, *economic orientation*, and *interpersonal relations*. The following text describes the core concept addressed by each of these terms.

#### Work centrality as a life role

Work is one of the most basic and important activities for people in modern society. The assertion that work plays a central and fundamental role in the life of individuals has been supported empirically in most industrialized countries (Brief & Nord, 1990; England & Misumi, 1986; Mannheim, 1993). Studies by Dubin and others (Dubin et al., 1975; Dubin et al., 1976) were helpful in developing this concept, which refers to the degree of general importance that working has in one's life at any given time (MOW – International Research Team, 1987). In general, work has been found to be of relatively high importance as compared with other areas of life (England, 1991; Ruiz-Quintanilla & Wilpert, 1991). It is usually considered to be more important than leisure, community, and religion and was found by several studies to be ranked second only to family (Harding & Hikspoors, 1995; Harpaz, 1999; MOW – International Research Team, 1987). Work centrality has been found to be positively related to important organizational variables, such as job satisfaction, participation in decision making (Kanungo, 1982), and job tenure (Dubin et al., 1975). Individuals with high work centrality seem to be more committed to their organizations and derive purpose and contentment from their jobs. Hence, it is conceivable that sudden possession of a large sum of money or wealth would not prompt these individuals to relinquish their jobs.

#### Expressive orientation

This concept emphasizes individuals' needs, including their evaluation of their competence for the job and whether the work task allows them an appropriate level of self-determination (Deci & Ryan, 1985). It is generally agreed that expressive or intrinsic variables include work aspects such as an interesting job, variety, autonomy, challenging work, and so on. Such expressive work aspects were found to be important for the development of strong job involvement among employees (Kanungo, 1982; Vroom, 1962). Several

scholars define or equate job involvement or components of it with work centrality or with the view of work as a central life interest (Lodahl & Keiner, 1965; Pinder, 1998). Expressive orientation emerged as the strongest predictor of work centrality in Germany, Israel, Japan, and the United States, prompting the researchers to argue that expressive orientation seems to be a universal phenomenon (Harpaz & Fu, 1997).

### Economic orientation

This sphere stems from one's disposition towards instrumental work outcomes. It assumes that people work mainly for, are motivated by, and enjoy obtaining the instrumental aspects of their work context. The importance of instrumental rewards tends to vary according to their attractiveness to individuals and their ability to satisfy various needs (Lawler, 1994). In Israel, income was selected as the most important work outcome by more than 30% of the sample representing the labor force in the 1980s, and by 43% in the 1990s (Harpaz, 1999).

There are a number of contentions and findings claiming that, contrary to general belief, intrinsic or expressive needs are not the only important aspect of work for people, and that instrumental variables are important as well (Dubin et al., 1975; Kanungo & Mendonca, 1992). It was disclosed that the most important role of work with which people identify is that of providing income for sustaining life and fulfilling other important needs (England & Harpaz, 1990; MOW – International Research Team, 1987). Accordingly, it seems that people with a high inclination toward instrumental or economic values perceive work as the main vehicle for providing income.

### Interpersonal relations

Humans are social beings and interaction between them is essential for their mental health (McAdams, 1988). The importance of interpersonal relations between people, for their well-being and subsistence, has been extensively discussed by various scholars (Battle, 1990). The need for affiliation and, specifically, the desire for friendly and close interpersonal relationships are part of most need theories (e.g. McClelland, 1985). In their classic typology of the meanings and functions of work that seems to incorporate the findings of most of the research, Kaplan and Tausky (1974) emphasize the prominence of 'satisfying interpersonal experiences' and point out that satisfaction stems from affiliations established at work (Kaplan & Tausky, 1974). The influence of social relations at work was also demonstrated by the outcomes attained by the MOW project (England, 1991; MOW – International Research Team, 1987).

Finally, some additional variables were examined in the MOW study in order to provide information on demographic variables, as well as a number of other aspects of the work situation (MOW – International Research Team, 1987). Six of these variables are relevant for the present research topic: gender, marital status, occupation type, employment sector; and, as called for by the workaholism definition that we use, weekly work hours and the degree of financial need.

## Hypotheses

Based on the limited available literature regarding the relations between workaholism and possible attitudinal, demographic, and situational variables, several hypotheses are being tested in the present study.

Attitudinal variables: meaning of work indices

### *Work centrality*

The roots of workaholism lie in the old Calvinistic philosophy that work redeems the believer and that indulging in pleasure will bring eternal damnation. Even nowadays, the dictum that work is a virtue and play is a sin still pervades in several industrial societies. The work ethic encourages working hard and putting in long hours. The appreciation of this behavior is reflected in sayings such as that someone is 'devoted' to their work (Killinger, 1991). Attributing high value to work is also a characteristic of Judaism. At different periods of time, work seems to have been a central focus of attention for Jews/Israelis, a norm that has had an effect on other important life values and attitudes and has shaped generations of workers in Israel (Harpaz, 1990).

Machlowitz (1980) claims that work is integral to and generally indistinguishable from the rest of the lives of workaholics. Scott et al. (1997) claim that workaholics spend a great deal of time in work activities, which consequently results in their giving up important social, family, or recreational activities. It may be argued that these are the behavioral manifestations of the considerable importance, both in an absolute and relative sense, attributed to work by workaholics. Hence, we assume:

*Hypothesis 1:* Work centrality will be positively related to workaholism.

### ***Expressive orientation***

Machlowitz (1980) uses the term workaholic to describe individuals whose desire to work long and hard is expressive. In addition, their work habits almost always exceed their job requirements and the expectations of the people with whom or for whom they work. Workaholism stems not from the motivation to earn more money, but rather to earn what Machlowitz (1980: 119) refers to as 'psychic income', defined as 'responsibility, meaning, opportunity, and recognition'. Therefore:

*Hypothesis 2:* Expressive work orientation will be positively related to workaholism.

### ***Economic orientation***

On the one hand, there are indications in the literature concerning the importance of economic reasons for working – money plays an important role in the life of most people (Lawler, 1971), and economic reasons for working are as important as ever (Haywood et al., 1989). However, on the other hand, Scott et al. (1997) state explicitly that workaholics work beyond what is reasonably considered as necessary to meet basic economic needs. Machlowitz (1980) claims that the motivation for workaholism is not mainly economic or instrumental, but rather intrinsic. Accordingly, we expect:

*Hypothesis 3:* There will be no relation between economic orientation and workaholism.

### ***Interpersonal relations***

Klaft and Kleiner (1988) indicate that the standards set by workaholic managers can result in resentment, conflict, and low office morale. Machlowitz (1980) states that workaholics demand devotion and dedication to the job even when their subordinates 'are at home asleep'. They also tend to be critical and contemptuous of co-workers, and display little interest in and great intolerance for the personal lives of assistants and associates. However, if, as Porter (1996) claims, workaholics are indeed attracted to and preferred by organizations in which long hours and 'sacrifices' are highly appreciated, they are likely to find themselves working with people who demonstrate the same workaholic norms and behaviors and consequently to have good interpersonal relations with those people. In view of these two opposing trends – namely, workaholics having problematic interpersonal relations with non-workaholics and good interpersonal relations with other workaholics, we assume:

*Hypothesis 4:* There will be no relation between valuing interpersonal relations at work and workaholism.

Demographic variables: gender and marital status

There is a consensus among researchers that Israeli society is family-centered (e.g. Harpaz, 1990; Izraeli, 1990). Although both Israeli men and Israeli women attribute great importance to family life, women shoulder most of the family responsibilities (Izraeli, 1990). For the majority of men, the dual-income situation differs fundamentally from that experienced by their spouses because, by tradition, the 'second shift' of unpaid work at home (i.e. home chores) does not fall on them (Hochschild, 1989). Wives in dual-career families spend much more time on household tasks than their husbands (Rothman, 1998). A number of studies have reported that working mothers have more difficulties than fathers do in balancing work and family demands (Duxbury & Higgins, 1994; Higgins et al., 1993). As a reaction to domestic demands, married women sometimes have to choose jobs that are part time, have flexible hours, or are close to home (Izraeli, 1990). While married women have to adjust work demands in order to meet domestic demands, according to the good-provider model (Bernard, 1981), to the extent that men view their family role as being the provider, marriage should lead them to increased work effort. Findings from past research generally have been consistent with the good-provider model (e.g. Cooney & Uhlenberg, 1991; Nock, 1998), so, as long as work is defined in the sense of paid employment, we assume:

*Hypothesis 5a:* Men, in comparison with women, will have a greater likelihood of being workaholics.

*Hypothesis 5b:* Married women will work fewer hours per week than unmarried women, while married men will work more hours per week than unmarried men.

Situational variables

### ***Occupation type***

Individuals with strong career identities work long hours, recommend work to others, stay with and invest in the organization, and sacrifice non-work activities and responsibilities for work. One component of career identity – the desire for upward mobility – encompasses needs for advancement, recognition, dominance and leadership (London, 1983).

Being a professional seems to provide suitable conditions for developing a strong career identity and, as a result, working long hours. Managerial

positions, by definition, demand increased work effort and responsibility. These positions also have the potential of fulfilling the desire for upward mobility. Based on the above claims, it is reasonable to assume that workaholics are more attracted to professional and managerial positions than non-professional and non-managerial positions. Consequently:

*Hypothesis 6:* Professionals and managers, in comparison with other workers, will have a greater likelihood of being workaholics.

### ***Employment sector***

Schneider's (1987) claim, that different kinds of organizations attract, select, and retain different kinds of people, may be applied to an entire employment sector, not just to a specific organization. For example, Izraeli (1990) argues that people with a high need to control the time they spend at work, such as working mothers, are attracted to the public sector due to the stable and convenient work hours it can offer in comparison with the private sector. Indeed, women constitute about 60% of Israeli civil service employees (Efroni, 1988; Maor, 1999). Workaholics, on the other hand, may be better suited to entrepreneurial ventures, in which they can manifest their devotion to work more easily, than to standard employment situations (Machlowitz, 1980). Thus we expect:

*Hypothesis 7:* Private sector employees, as compared with public sector employees, will have a greater likelihood of being workaholics.

## **Method**

### **Samples**

Data were collected in 1981 through the Meaning of Work international project and then again in 1993.

### ***The 1981 sample***

In 1981, a questionnaire probing the meaning of work was completed by a representative sample of the Israeli labor force, consisting of 973 respondents. The sample was drawn from 10 socioeconomic strata as defined by the Central Bureau of Statistics, using an ecological method. Eight strata represented the urban areas, covering 95% of Israel's citizens; while the remaining two strata represented the rural settlements, according to Israel's population distribution. This resulted in stepwise random selection according to random household identification, random choice among those who fell

within prescribed categories, and random quota sampling according to the specifications of the Israeli Central Bureau of Statistics.

Specifically, 35% of the sample were drawn from the four largest cities in Israel (Tel Aviv, Jerusalem, Haifa, and Beer Sheba), 35% from 'old' cities (founded before the establishment of the state of Israel in 1948), 13% from 'new' cities (founded after 1948), 6% from old urban settlements (towns administered by a local municipality), 7% from new urban settlements, 1.5% from old rural settlements, and 2.5% from new rural settlements. The stratification of the sample ensured a high level of representation and decreased sampling error.

Each city was divided into sub-districts, and streets were randomly selected according to their representation within each district; this being only in the range of the sampling error, so the population was organized in a less heterogeneous stratum. The sampling unit was the family living in an apartment or a house. In each street interviewers went to the first house, then from house to house, entering every apartment until they had completed the number of interviews allocated to that street. Thus a systematic bias of the sample was prevented (i.e. it eliminated the tendency of interviewers to enter only the lower floors, as most Israelis tend to live in apartment houses). Individuals were interviewed in their homes by professional interviewers from a national survey agency, using the University of Michigan's 'Kish Method' (Kish, 1967). This meant the interviewer was asked to compile a list of all people aged 18 and above who permanently lived in the same household. After the first interviewee was chosen, the interviewer proceeded to interview every third person on the list. This method ensures that two principles are taken into consideration: first, proper representation of families with respect to their size, which eliminates over-representation of small families or under-representation of large families; second, a lack of bias caused by the availability of family members to interview. Women, housewives, mothers of young children, and people over 65 tend to spend more time at home, so drawing up lists of family members and interviewing every third person prevented systematic bias of this kind.

Finally, an average interview lasted about 25 minutes, and about 87% of all individuals approached agreed to participate. Comparisons with regard to census data showed a high degree of representation (MOW – International Research Team, 1987).

The sample population comprised 57.4% men and 42.6% women, with a mean age of 39.4 years, and 81.6% of the respondents were married. Regarding educational level, 19.1% had only primary school education, 46.1% had secondary school education, 18.5% had some college or vocational/technical education, and 16.3% had a university degree.

### ***The 1993 sample***

Data on a new representative sample of the labor force were collected in 1993, following similar sampling and interviewing procedures to those used in the 1981 study. Specifically, respondents were selected by various random methods and were interviewed individually in their homes by professional interviewers from a national survey agency. The questionnaire contained the same items as those used in the 1981 sample, an average interview again lasted about 25 minutes, and 84 percent of all individuals who were asked about being interviewed agreed to participate in the study. Likewise, comparisons with census data of the *Statistical abstracts of Israel* (1995) showed a high degree of representation.

The 1993 sample population consisted of 942 respondents, 57.9 percent of whom were men and 42.1 percent women; the mean age was 38.2 years, and 74.5 percent of the respondents were married. Regarding education, 6.9 percent had primary education, 50.3 percent had secondary education, 21.9 percent had some college or vocational/technical education, and 20.9 percent had a university degree.

### **Measures**

#### Workaholism

Workaholism was measured as total weekly work hours (including overtime), while controlling the financial needs (see the following paragraph) for this time investment by means of hierarchical regression. This time investment measure addresses only the behavioral (work-related activities) and not the cognitive (work-related thoughts) component of the workaholism definition proposed by Snir and Zohar (2000). However, this measure was found to have high predictive validity regarding the cognitive component of Snir and Zohar's definition. Snir (1998) conducted a study according to the experience-sampling method, which attempts to sample randomly from people's everyday experiences, on a convenience sample of 65 full-time workers. Each of the 65 respondents provided four randomly sampled self-reports per day of his or her activities, thoughts and feelings over a one-week period. It was found that workaholism, as a predictor variable, was positively correlated with thinking about work in general and also in non-work settings during that one-week period.

### Financial needs

Financial needs were measured by an index that took into account marital status, whether or not the respondent's spouse worked (at least in a part-time job), and the number of people who were financially dependent on the respondent – which is similar to the index used by George and Brief (1990). Conceptually, single respondents and married respondents whose spouses worked were considered to have fewer financial needs than married respondents with non-working spouses. Additionally, the more people that respondents supported financially, the greater were considered their financial needs. Based on this reasoning, scores on the financial need index were computed in the following manner:

1. respondents who were single or married with a working spouse were assigned an initial score of 0, and respondents who were married with a non-working spouse were assigned an initial score of 1;
2. the final financial needs score for the respondent was calculated by adding to this initial score the number of people who were supported financially by the respondent.

### Meaning of work

A description of four meaning of work domains and their measurement scales, followed by a description of the procedure for the extraction and development of the indices used in the present study is given next. These four domains were employed in the 1981 Israeli data collection as part of the international MOW study (MOW – International Research Team, 1987). In order to maintain uniformity for replication and comparability, they were also used in the 1993 data collection.

The meaning of work study is an original and pioneering cross-national project that was initiated in the late 1970s by a group of researchers from eight countries. A model consisting of five domains was jointly formulated and empirically tested in each country (MOW – International Research Team, 1987). Four domains are relevant for the present study – work centrality, valued work outcomes, work goals, and work-role identification – with each one being designed uniquely in order to capture the multidimensionality and richness embodied in attitudes towards work and work values. These domains were utilized for the extraction of the present study's four MOW indices. A short description of the domains follows.

### ***Work centrality as a life role***

Two measures of work centrality were used. The first was an absolute measure (Likert-type scale) that indicated the overall importance of work in the individual's life (from 1 = low to 7 = high). The second was a relative measure that had respondents assign up to a total of 100 points to the following areas of their lives: leisure, community, work, religion, and family.

### ***Valued work outcomes***

This concept examines general outcomes sought through working, as well as their relative importance. It assumes that individuals making the evaluation of importance know or have experienced each outcome sufficiently to be able to link them to each other in an ordered manner. Respondents were asked to assign up to a total of 100 points to the following six outcomes that work provides: status and prestige, income, time absorption, interesting contacts, service to society, and satisfaction.

### ***Importance of work goals***

Another way of understanding what is important to individuals in their working life is to focus on a uniform detailed set of specific work goals or facets of working and to ascertain how important each is to individuals in a relative sense. Respondents ranked 11 goals or aspects of their work life according to their importance: opportunity to learn, interpersonal relations, possibilities for promotion, working hours, variety, interesting work, job security, match between job and abilities, pay, working conditions, and autonomy.

### ***Work-role identification***

This covers the extent to which people define and identify working in terms of various roles. Respondents ranked six work roles in order of their importance: task, company, product/service, co-workers, occupation, and money.

As indicated earlier, responses to the 1981 and 1993 MOW surveys were collected using a variety of methods. These included: (a) scoring items on a one to seven Likert scale, (b) allocating 100 points among several items according to their importance, and (c) ranking items according to a given priority. Utilization of different measurement approaches is a unique characteristic of the MOW study; however, comparing relationships among all items becomes problematic. This is mainly apparent in our ability to create indices and examine their reliability in the standard psychometric procedures.

Consequently, in order to surmount this complication, multidimensional scaling (MDS), was employed as an alternative procedure.

For the reader unfamiliar with this process, MDS is a scaling method that attempts to configure a geometrical space of a set of relationships among variables underlying different attributes or domains. It may be utilized when it is not known which dimensions individuals are using in responding to a group of stimuli, and hence enables the researcher to determine the composition of those dimensions (Nunnally, 1978). In multidimensional scaling, the complex phenomenon under study is usually represented by geometrical space, and the number of dimensions used for representing relationships among stimuli is usually unknown. Points in that space characterize individual stimuli, and responses are required in terms of similarities or differences among stimuli. The more similar the stimuli, the closer are the points (Nunnally, 1978). The objective of multidimensional scaling is first to determine the number of dimensions, and then to obtain scale values for the stimuli on a selected set of dimensions (Ghiselli et al., 1981).

In order to rank relationships among the miscellaneous scaled items in the present study, an ordinal distance matrix was formed by the absolute difference between normalized items scores, corrected for central tendencies and interdependencies. Transformation of the ordinal relationships among the MOW items to an interval scale was carried out through the multidimensional scaling method (Klahr, 1969), prepared by an SAS MDS procedure (1992). The procedure used Kruskal and Wish's (1978) stress formula with weighted Euclidean distances in which each matrix is allowed differential weights for the dimensions (in accordance with the 'Indscal' model formulated by Carroll & Chang, 1970). The 1981 and 1993 samples were analyzed separately, and the input for the analysis consisted of the ordinal relationship matrix calculated for each respondent, plus an initial matrix taken from the MDS configuration of the two samples combined. For each sample the MDS output was a five-dimensional configuration of item similarities on an interval scale (with 19.18 percent and 19.14 percent stress for the 1981 and 1993 samples respectively).

The 11 items making up the indices for the present study are as follows:

1. *Work centrality*: (a) absolute significance of work in an individual's life; (b) relative importance of work in relation to other life areas.
2. *Expressive orientation*: (a) variety of work; (b) interesting work that you really like; (c) satisfying work.
3. *Economic orientation*: (a) importance of pay; (b) the significance of the role of money; (c) valued income.
4. *Interpersonal relations*: (a) working permits interesting contacts; (b) type of people one works with; (c) good interpersonal relations.

The structure and stability of these indices across the measurement periods of 1981 and 1993 can be examined by the following results. Intra-item correlation (intra-class correlation for between-samples similarity) for the items ranged from 0.976 to 0.995, indicating that patterns of configuration of the items are similar in both 1981 and 1993 samples. A stepwise discriminant analysis revealed a significant contribution by four out of five MDS dimensions to the discrimination of items among the four MOW indices (significance ranging from  $p < 0.0001$  to  $p < 0.0441$ ). Significance of Mahalanobis distance ranged from 0.0582 to 0.0001. Two canonical variables made a significant contribution to the discrimination of items between indices (0.0001 and 0.0004) with zero error rates. Figure 1 portrays the canonical scores of the 11 items from the 1981 and 1993 surveys.

The procedure used clearly illustrates that the items forming each of the MOW indices remained in a similar configuration across samples. Hence, the results indicate a distinguished stability in the structure of these indices between both measurement periods (1981 and 1993). The analysis disclosed that the measurement model is solid and that these variables consistently represent the meaning of work indices. Consequently, these indices serve as four of the independent variables in the present study.

Our additional independent variables were measured as follows.

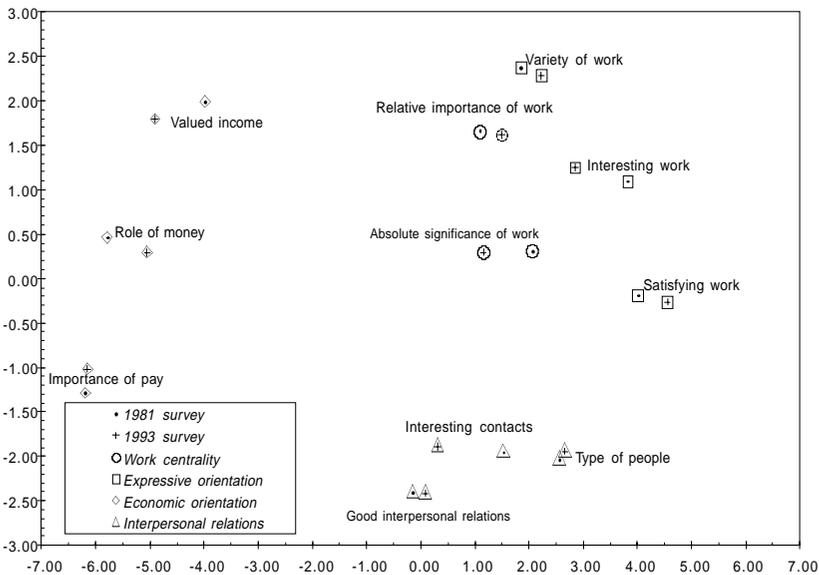


Figure 1 Canonical configuration of meaning of work indices

### Gender

Gender was a single item, which required the respondents to indicate their sex (0 = male; 1 = female).

### Occupation type

Respondents were classified according to three major occupational categories: professional and management (13.8% and 31.4% for the 1981 and 1993 samples respectively), clerical and services (49.7% and 46.5% for the 1981 and 1993 samples respectively), production and agriculture (18.4% and 13.6% for the 1981 and 1993 samples respectively).

Other individuals, such as the unemployed, military personnel, and those without a specified occupation, were not included in the relevant inferential analysis (hierarchical regression). The latter was conducted only with regard to the three major categories (1 = professional and management; 0 = a combination of the second and the third categories).

### Employment sector

Individuals were classified according to the sector in which they are employed (0 = public, 1 = private), with 41.4 percent of the 1981 respondents and 34.0 percent of the 1993 respondents being classified as public sector employees, and 36.7 percent of the 1981 respondents and 52.4 percent of the 1993 respondents classified as private sector employees. The unemployed and, due to change of ownership during the 1980s of some firms initially owned by the Histadrut (Israeli General Federation of Labor), Histadrut sector employees were not included in the relevant inferential analysis (hierarchical regression).

## Analysis

Hypotheses regarding work centrality, expressive orientation, economic orientation, interpersonal relations, gender, occupation type and employment sector will be examined via hierarchical regression. In the hierarchical approach to multiple regression, the investigator specifies from the outset the order or hierarchy in which the predictor variables are to be introduced into the regression equation (Hays, 1994). We used this approach in order to find out the additional specific contribution of each of these research variables to the prediction of total weekly work hours (including overtime) beyond the contributions of the following control variables: financial needs and labor force sampling year (1981 was coded as 0 and 1993 as 1).

The hypothesis concerning the interaction of gender by marital status was examined via multivariate analysis of variance (MANOVA), with financial needs as a covariate. The dependent variable was total weekly work hours. A three-way interaction of gender by marital status by labor force sampling year was also examined via MANOVA, in order to clarify the influence of the labor force sampling year on the pattern of the results.

## Results

Means, standard deviations, and number of items among research variables are presented in Table 2.

Hypotheses 1 to 5a, 6 and 7 were examined via hierarchical regression. The financial need score, which was entered into the regression equation in the first step, accounted for 0.6 percent of the variance in total weekly work hours ( $F(1,1176) 7.07, p < 0.01$ , adjusted  $R^2 0.005$ ). Labor force sampling year, which was entered into the regression equation in the second step, accounted for an additional 2.9 percent of the variance in total weekly work hours ( $F$  for  $\Delta R^2(1,1175) 35.44, p < 0.001$ , adjusted  $R^2 0.033$ ). The seven variables (work centrality, expressive orientation, economic orientation, interpersonal relations, gender, occupation type and employment sector) that were entered into the regression equation in the third step, accounted for an additional 23.8 percent of the variance in total weekly work hours ( $F$  for  $\Delta R^2(7,1168) 54.77, p < 0.001$ , adjusted  $R^2 0.268$ ). Standardized coefficients for these variables are presented in Table 3.

**Table 2** Descriptive statistics of the research variables for the representative samples of the Israeli labor force in 1981 and 1993<sup>a</sup>

Research variables	1981 sample		1993 sample		Number of items
	Mean	SD	Mean	SD	
Work centrality	4.10	0.95	4.16	0.92	2
Expressive orientation	3.68	0.87	3.68	0.86	3
Economic orientation	3.81	1.41	4.62	1.41	3
Interpersonal relations	3.32	0.95	3.10	0.98	3
Total weekly work hours	41.40	14.08	44.69	14.16	1
Financial needs	3.83	1.98	3.17	1.83	3

<sup>a</sup> The four MOW variables were constructed from questions based on different scale values; their items were transformed into a scale ranging from 1 (low) to 7 (high).

**Table 3** Hierarchical regression results (standardized coefficients) for total weekly work hours as a predicted variable

<i>Variables</i>	<i>Step 1</i>	<i>Step 2</i>	<i>Step 3</i>
<b>Control variables</b>			
Financial needs	.077**		
Labor force sampling year		.173***	
<b>Predictor variables</b>			
Work centrality			.135***
Expressive orientation			-.009
Economic orientation			.101**
Interpersonal relations			.028
Gender			-.413***
Occupation type			.064*
Employment sector			.074**

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

Hypothesis 1 was supported: work centrality was positively correlated with total weekly work hours. Hypothesis 2 was rejected: contrary to our prediction, no significant relation was found between expressive orientation and total weekly work hours. Hypothesis 3 was rejected: economic orientation, contrary to our prediction, was positively correlated to total weekly work hours. Hypothesis 4 was supported: no significant relation was found between valuing interpersonal relations at work and total weekly work hours. Hypothesis 5a was supported: men, in comparison with women, had a greater likelihood of working long hours. Hypothesis 6 was supported: professionals and managers, as compared with non-professional and non-managerial workers (in clerical, services, production and agriculture occupations), had a greater likelihood of working long hours. Finally, hypothesis 7 was also supported: private sector employees, as compared with public sector employees, had a greater likelihood of working long hours. Of the seven variables described, gender was found to be the strongest predictor of total weekly work hours.

Hypothesis 5b was examined via MANOVA. The analysis involved three independent variables (gender, marital status, and the year of labor force sampling), one covariate (financial need), and one dependent variable (total weekly work hours). Adjusted means and standard deviations of total weekly work hours in the MANOVA are presented in Table 4.

Hypothesis 5b was supported, as shown in Table 4. A significant main

**Table 4** Adjusted means and standard deviations of total weekly work hours in a multivariate analysis of variance, with financial needs score as a covariate

<i>Variable</i>	<i>Adjusted mean</i>	<i>SD</i>
<b>1981 sample</b>		
Married women	32.99	10.79
Unmarried women	37.90	13.60
Married men	47.96	12.66
Unmarried men	45.04	12.83
<b>1993 sample</b>		
Married women	37.02	11.50
Unmarried women	38.67	11.56
Married men	51.13	12.79
Unmarried men	48.29	15.93

effect for gender was revealed ( $F(1,1714) 216.44, p < 0.001$ ); men worked more hours per week than women. A significant two-way interaction of gender by marital status was also found ( $F(1,1714) 15.49, p < 0.001$ ). Married women worked fewer hours per week than unmarried women, while married men worked more hours per week than unmarried men. However, no significant effect for the three-way interaction of gender by marital status by labor force sampling year was found.

In both the hierarchical regression and the MANOVA, the pattern of results remained stable across the labor force samples.

## Discussion

The present study is one of the relatively few empirical studies concerning workaholism (e.g. Porter, 2001; Snir & Zohar, 2000; Spence & Robbins, 1992). Moreover, its findings have high external validity with regard to people in the Israeli labor force, since it was carried out on two representative samples of that population.

Workaholism was positively related to work centrality and economic orientation. It was also found to be primarily a male phenomenon that is especially relevant concerning professional/managerial positions and the private sector. Working long hours could be the behavioral outcome of attributing high centrality to work, but an alternative explanation for this positive relation between work centrality and workaholism may include a

cognitively constructed rationale. In view of Bem's (1972) self-perception theory, some workers may conclude, based on their workaholic behavior, that work is central for them.

Contrary to our predictions, no significant relation was found between expressive orientation and workaholism, while economic orientation was positively related to workaholism. These findings contradict Machlowitz's (1980) claim that the motivation for workaholism is not mainly economic or instrumental, but rather intrinsic. However, as Dyer and Parker (1975) argue, it may be quite hard to distinguish between intrinsic and extrinsic work motivators. In the modern industrialized world, money is inculcated with moral and emotional meanings (Furnham & Argyle, 1998), and highly valued due to its ability to acquire power, esteem, autonomy and freedom, as well as goods (Tang, 1992).

In general, no significant relation was found between valuing interpersonal relations at work and workaholism. However, examining the value attributed by workaholics to interpersonal relations at work with other, similar, workaholic colleagues versus non-workaholic colleagues might have yielded different results. If indeed workaholics have a better interaction with people who demonstrate the same workaholic norms and behaviors than with non-workaholics, this may have some staffing implications. If possible, organizations should consider formation of homogeneous work teams composed of either workaholics or non-workaholics. This could be a scheme to avoid stress that, as Porter (2001) claims, might be experienced by co-workers who cannot meet the demanding work standards set by perfectionist workaholics.

The finding that men, in comparison with women, have a higher likelihood of being workaholics supports Pittman and Orthner's (1988) assertion that men are apt to prefer work over relationships more than is the case for women. Since women's interest in professional advancement does not replace their orientation toward relationships (Baber & Monaghan, 1988), the working mother's 'second shift' at home (Duxbury & Higgins, 1994) may constitute a barrier to potential development of workaholic behavior in paid employment. Indeed, we found that married women worked fewer hours per week than unmarried women; while married men, consistent with the good-provider model (Bernard, 1981), worked more hours per week than unmarried men. In a recent study (Kaufman & Uhlenberg, 2000), which was carried out regarding only married men and women, a somewhat similar pattern was discovered. Mothers work, on average, about 4.6 hours per week less than childless married women; while fathers work, on average, about one hour per week more than childless married men (Kaufman & Uhlenberg, 2000). Contrary to the present study's findings, no relation was found

between gender and workaholism in two other studies (Burke, 1999a; Doerfler & Kammer, 1986). Doerfler and Kammer (1986) reported that 23 percent of their respondents were workaholics, and this was consistent across the two sexes. However, the majority of single workaholics were female, and female workaholics reported more masculine and androgynous characteristics than feminine characteristics (Doerfler & Kammer, 1986). Burke (1999a) found that females and males were similar on the three workaholism components based on Spence and Robbins's (1992) definition: work involvement, feeling compelled to work, and work enjoyment. A conceptual difference may explain the contradiction between the present study and Burke's (1999a) findings regarding the relation between gender and workaholism. While in the present study the conceptualization of workaholism is based on behavioral and cognitive work aspects (i.e. time investment in work-related activities and thoughts), Burke (1999a) relies on an attitude-based definition of workaholism. An attitude-based criterion, unlike a behavior-based one, does not seem to take into consideration working women's 'second shift' at home. Thus there is a higher likelihood of classifying working women as workaholics according to Burke's (1999a) conceptualization. However, Scott et al. (1997) state explicitly that workaholism is not simply an extreme case of work involvement – for example, an employee may consider work to play a central role in her or his life, while still being able to leave at the end of an eight-hour day and not think about it again until returning to work the following day.

It was found that professionals and managers, as compared with non-professional and non-managerial workers, had a greater likelihood of being workaholics. It can be argued that workaholics are attracted to professional and managerial positions since these positions are inherently challenging and demand high time investment. However, in view of the positive relation between economic orientation and workaholism, the high monetary rewards associated with these positions may serve as an additional reason for workaholics to occupy them.

Private sector employees, as compared with public sector employees, were found to have a greater likelihood of being workaholics. Perhaps not only different kinds of organizations (Schneider, 1987; Schneider et al., 1995) attract, select, and retain different kinds of people, but also entire employment sectors. If it is really so, future formal personnel selection procedures should contain an examination of person–employment sector fit, in addition to the conventional assessment of person–job fit, or the examination of person–organization fit suggested by Borman et al. (1997).

The overall pattern of results remains stable across samples (1981 and 1993). The study's findings are further supported by the fact that the labor

force composition did not change significantly between 1981 and 1993 (Harpaz, 1995). However, it should be stressed that even though workaholism is addressed in this study as the predicted variable, the use of cross-sectional, correlational data, drawn from two representative samples of the Israeli labor force, does not allow us to make causal inferences concerning the various hypothesized relationships.

The present study makes two major contributions to research on workaholism. First, it was carried out using a non-biased definition of workaholism (Snir & Zohar, 2000), which does not attribute a priori a positive or negative value to this phenomenon. Thomas et al. (1997) claim that construct development is a scientific process, with precision being one of its core quality standards. During construct development, a popular construct is transformed into a more 'respectable' theoretical construct. Accordingly, since the term 'workaholism' has a negative association with alcoholism, replacing it with a more precise term, such as work-directed behavior and cognition, is recommended. Second, the finding that gender is the strongest predictor of workaholism may indicate that existing conceptualizations of workaholism as an attitude or a trait (e.g. Machlowitz, 1980; Naughton, 1987; Spence & Robbins, 1992) have underestimated the importance of sex-roles in shaping work patterns and behaviors. For example, Etaugh and Folger (1998) examined how married parents are perceived as a function of their gender and the employment status of both the parent and his or her spouse following their child's birth. Full-time employment, as compared with part-time employment, enhanced perceptions of the professional competence of fathers, but not of mothers, and lowered evaluations of nurturance for both parents, but especially for mothers.

In view of the proposition that workaholism may be on the rise (Fassel, 1990; Koonce, 1998), the findings of the present study are timely. However, the question as to whether these findings can also be generalized to other countries still has to be examined as well. In the 1981 Meaning of Work project conducted in eight countries, including the present Israel sample, 75–95 percent similarity was found across the countries in the structure of individual work meanings (MOW – International Research Team, 1987). In addition, non-financial employment commitment was also high: over two-thirds of the respondents in each country stated that they would continue to work even if they had enough money to live comfortably for the rest of their lives without working (MOW – International Research Team, 1987). In sum, although there are similarities in work-related attitudes across countries, a future systematic cross-national comparative study needs to be carried out to discover how universal workaholism, as characterized in this study, may be.

The present study is limited in that its measures are based on self-reported

data collected through interviews. Future research should also include reports from family, friends, and co-workers (Porter, 1996), as well as some measures of workaholics' behavior patterns (e.g. organizational data concerning overtime work). Additionally, financial needs, as a common type of external necessity for substantial time investment in work, were measured in this study by an index that took into account marital status, whether or not the respondent's spouse worked, and the number of people that were financially dependent on the respondent. However, financial needs are not only an objective state, but also a subjective perception. Perceived financial needs might be as important as actual needs, and future research should address this topic. Finally, based on the non-biased definition of workaholism (Snir & Zohar, 2000), a longitudinal study could be performed in order to examine whether an employee's considerable allocation of time to work-related activities and thoughts is steadfast over the years. This may facilitate a more accurate measurement of workaholism and may also enable causal inferences concerning personal and situational antecedents and outcomes of workaholism in general and possible subtypes (e.g. in accord with Scott et al.'s, 1997, typology).

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