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# MORAL HAZARD AS A CONTRIBUTING FACTOR TO WORKER ABSENTEEISM IN SWEDEN

*Augustine M. Ripa*



## **Introduction**

Social insurance policies in Sweden provide benefits for individuals suffering from medical conditions that reduce their working capacity. These benefits are designed to help alleviate financial pressures felt from personal income reduction due to this reduced working capacity: workers absent due to sickness collect cash disbursements in place of earned income. In this manner, the social insurance programs subsidize worker absenteeism. Historically, the scope of this effort has increased and decreased as worker absenteeism levels have fluctuated substantially in the past. (“Social Insurance in Sweden 2003”) For a variety of reasons, including the effects on social insurance expenditure and labor supply, it is important to understand what contributes to these fluctuations.

In this article, I explore the role of one contributing factor to describe its influence on worker absenteeism: moral hazard. This is a sig-

nificant point, since from my personal experience in Sweden and in conducting research, I have seldom seen a candid exploration of this phenomenon to describe trends in worker absenteeism. I provide an in-depth look at the structure of the Swedish social insurance system, followed by a detailed explanation of moral hazard phenomena which provides suitable background for this investigation. I then examine research documenting the existence of moral hazard’s influence on worker absenteeism in Sweden in general. Finally, I present a closer look at absenteeism trends in Sweden since 1998 as a case study to further demonstrate moral hazard’s link to worker absenteeism.

## **The Welfare State and Social Insurance in Sweden**

Sweden is internationally recognized for its implementation of one of the world’s most

comprehensive welfare states. The expanse of Sweden's welfare program is truly vast and has earned a reputation for providing its citizens with so-called "cradle-to-grave" support. These welfare policies interest many scholars and policymakers, particularly in light of Sweden's embrace of capitalism and success in industry: Swedish companies include a long list of industry giants such as Electrolux and ABB. This dichotomy of business prowess and welfare sophistication has become a key characteristic of Sweden.

Sweden's welfare state embodies what is referred to as an *ideal* welfare system; the state administers "comprehensive and universal welfare for its citizens." ("An Introduction to Social Policy," p. 1) These welfare provisions are more generous than those of other industrialized nations, such as Britain, France, Germany, and the United States. The extent of Sweden's welfare coverage stems from its gravitation towards an institutional welfare system that addresses need as a fact of normal life. Swedish welfare support therefore transcends typical socioeconomic boundaries and becomes a part of life for all citizens — both rich and poor. ("An Introduction to Social Policy") Social insurance in Sweden, encompassing programs such as child-care benefits, retirement pensions, and sickness and disability insurance, stands out as one of the country's most noteworthy welfare policies. Although the scope of coverage is large, all social insurance programs embrace the same general mission: ensuring the financial security of citizens. Sweden's National Social Insurance Board describes these programs as follows:

The purpose of social insurance is to afford security for families with young children, in illness and disability, and in old age. The purpose of these benefits is also to even out economic conditions between child families and households without young children, and to spread economic resources over the life cycle. ("Social Insurance Expenditure in Sweden 2001–2004," p. 7)

The Standing Committee on Social Insurance, a permanent committee of the Swedish Riksdag, or parliament, administers the social insurance effort. The committee's responsibil-

ities include the management of many aspects of the social insurance system, including one category called "financial security during illness and disability." (Sveriges Riksdag) This category refers to the government's effort to prevent citizens from undue financial hardship during worker absence caused by poor health. The benefits provided under this system are defined as a percentage of previously earned salary; thus, both wealthier and less wealthy Swedes are protected under a universal plan of coverage. This adds another level of meaning to *social* insurance.

Any Swedish citizen earning an annual income greater than or equal to 6,000 SEK has rights to social insurance disbursements in the event of an injury or illness that limits working capability. ("Social Insurance in Sweden") The circumstances of any such condition are irrelevant to the type and amount of coverage received. An employee could injure himself off duty while pursuing leisure activities in his spare time, for example, and still qualify for these provisions. ("The Swedish Labour Market...") The National Insurance Act and the Act on Sick Pay elaborate details regarding the administration of insurance benefits. ("The Swedish Labour Market...") Currently, employers are required to pay for the first fourteen days of employee illness; but if illness persists beyond this point, the government assumes payment of the employee's benefits. This payment can be supplemented by private agreements between employee, employer, and a labor union. Although these private benefits usually cease after one year, public benefits can continue well beyond that point. The Swedish government currently compensates workers up to 80 percent of their previously earned income, although less compensation is possible depending on the degree to which one's working capacity is affected. ("Social Insurance in Sweden 2003") Combined, the private and government benefits generally bring total income compensation to 90 percent of previous income. ("The Swedish Labour Market...")

Once an employee's need for sickness benefits becomes a long-term condition, it is possible for the individual to be switched to disability insurance. Sick leave patients whose condition is deemed to persist for at least one

year are typically reviewed for disability status, which can be granted on a permanent basis if necessary. (“Social Insurance in Sweden 2003”) In sum, worker absenteeism in Sweden can be compensated generously under either sickness or disability insurance — both of which are forms of social insurance.

## What is Moral Hazard?

To examine moral hazard as an active force in Sweden’s social insurance program, a working definition of moral hazard must be established. Moral hazard can quickly be described as the “tendency of insurance to change behavior,” but this brief definition does not encompass the full scope of the term. (“Insurance”) Since moral hazard is so closely tied to the economics of insurance, a brief description of insurance will help solidify moral hazard as a concept.

Insurance is any means by which the consequences of risk are reduced. (“Economics A–Z...”) For example, risk can be pooled over a large group of individuals through contributions to a fund. Each individual has a particular chance of experiencing the adverse consequences of a certain risk, and thus the number of individuals expected to be struck by said risk can be determined. This allows fund managers to set required individual contributions to provide the fund with adequate means to compensate those stricken individuals. In this manner, each person can avoid the financial consequences of risk by paying only a fraction of the costs associated with those consequences. This is illustrated in the following general example:

If one out of 1000 homes will burn each year, and if each person contributes to a general fund 1/1000 of the value of his home, the fund will have enough (ignoring administrative expenses and the question of whether expensive homes are more or less likely to burn than cheap homes) to reimburse those whose homes burn down. (“Insurance”)

In certain instances, the specific nature of an individual’s insurance, in combination with the associated costs of a given risk’s consequences, creates economic incentives for an individual to experience those consequences. In other

words, if payments from an insurance fund exceed the financial cost incurred by misfortune, then individuals have the economic incentive to seek out that misfortune. Home insurance provides a good example to illustrate this point. If a home is worth \$100,000 but an insurance fund will reimburse the individual \$150,000 in the event of disaster, an economic incentive now exists to experience that disaster. In this case, the individual lacks incentive to steer clear of a potential calamity and may in fact act to induce it. Such a change in behavior induced by the presence of an insurance agreement is a moral hazard phenomenon. (“Insurance”)

Moral hazard sometimes manifests itself in extreme forms, but quite frequently reveals itself in more subtle ways. It is true that health insurance can create incentives in favor of injury or illness, but it would be absurd to assume that all insured individuals seek physical harm to reap these benefits. Although documented cases of such behavior do exist, moral hazard also embodies a much softer side of behavior modification. This phenomenon can be as subtle as an individual’s redefinition of tolerable pain. For example, suppose a worker experiences minor back pain as part of his daily life, but under his current insurance situation deems the pain small enough to continue reporting to work. Now, suppose that the insurance status of this worker changes so that this pain can be easily classified as an insurable illness, and thus the worker’s condition would be covered under the new insurance plan. An incentive exists for the worker to take advantage of the insurance program, cite this pain as a cause for his absence from work, and collect insurance benefits from home. The worker’s decision is dictated by the more favorable incentives created through a new insurance program rather than a change in his medical need; this is moral hazard.

In Sweden, an example of moral hazard could follow the preceding anecdote very closely, with a worker using his pain to claim sickness benefits instead of going to work. If this pain persists, the employee could even be considered for disability status and permanent income support. Another moral hazard phenomenon that could occur in Sweden involves

the incentive to exit sickness insurance programs. Suppose an injury incurred by an employee limits working capacity to a degree that qualifies him for sickness or disability benefits. The employee is now faced with the possibility of rehabilitation to re-enter the workforce. Now, suppose the social insurance income compensation, which has significantly reduced his economic incentive to return to work, in turn alters this employee's rehabilitation efforts. In other words, the employee pursues reintegration into the workforce with a slightly reduced fervor due to the presence and generosity of his sickness insurance. This is also moral hazard — the employee is using the generosity of the sickness benefits to stretch his sick leave stay beyond what he would under a less generous benefit package. Both of these hypothetical instances are examples of how moral hazard phenomena could exert influence on worker absenteeism in Sweden. I now discuss research that goes beyond the boundaries of such speculation and documents specific instances of moral hazard phenomena in Sweden.

## **Documented Moral Hazard in Sweden**

Worker absenteeism in Sweden is most certainly affected by a variety of complex contributing factors. Commonly cited examples of such factors include trends in worker health, quality of working environment, forms of employment and working hours of Swedish employees, the onset of psychological stress in work and private life, and/or the state of the Swedish economy. A substantial body of research and thought is dedicated to the exploration of these issues and their relation to Swedish worker absenteeism. Below, however, I present evidence documenting moral hazard's effect on Swedish worker absenteeism, as the purpose of this article is to demonstrate its contribution to absenteeism trends. This evidence does not diminish the role of other contributing factors, but it does show a clear link between moral hazard and the incidence of worker absenteeism in Sweden.

Henrekson and Persson show that incentives created by Sweden's insurance programs dictate a behavioral response that fluctuates

corresponding to the nature of those incentives. Their work correlates absenteeism levels with administrative changes in the structure of Sweden's social insurance regulations. (Henrekson and Persson) Utilizing data from 1955 to 1999, they compare numbers of sick days over a given period with the generosity of sickness compensation over that same period. Specifically, a regulation change in 1991, which significantly reduced initial compensation levels, is cited as causing large subsequent decreases in the number of sickness cases. (Henrekson and Persson) In general, Henrekson and Persson find a strong positive correlation between the generosity of sick leave benefits and the amount of sick leave.

According to our regression analyses there appears, in most cases, to be strong effects on sick leave behavior from changes in sick leave compensation levels. When the insurance system is made more generous, the aggregate number of sick days increases, and when the system is made more austere, the number falls. (Henrekson and Persson, p. 27)

These findings, through their demonstration of behavioral adaptation to incentives, clearly demonstrate moral hazard in the Swedish social insurance system. The historical timeline of the data suggests that moral hazard has expressed itself in the Swedish social insurance system for some time.

In another study, Larsson examines the rate at which unemployed Swedes seek sick leave benefits. While unemployed, Swedish citizens receive unemployment benefits from the government for a limited period of time. If a Swede falls ill while unemployed, he can claim sickness benefits as he would if working and receive sickness compensation based on previous income. It is important to note that sickness benefits are not time constrained and are usually greater than the unemployment benefits. (Larsson) Larsson finds that unemployed individuals claim sickness benefits at higher rates as the duration of their unemployment compensation expires. As Larsson explains:

...SI [sickness insurance] benefits are used as a means to save UI [unemployment insurance] benefit days, and thus, to postpone the drop in

income after all of the UI benefit days are used. The need to postpone becomes more obvious as the expiration date approaches, thereby increasing the willingness to report sick on the few UI benefit days that remain. (Larsson, p. 26)

This is another example of incentives dictating individuals' behavior. Here, incentives created by a disparity between two insurance programs are acted upon to postpone income loss. This, again, is moral hazard.

Still other studies have explored the relationship between job security and worker absenteeism due to sickness. Hesselius establishes that increases in the frequency and duration of sick leave stays correspond to an increased risk of unemployment. (Hesselius) He maintains that these results suggest that "less absence-prone workers are more likely to remain employed in a recession" and that such a relationship "may in part explain the procyclical pattern of aggregate Swedish sick absence rates." (Hesselius, p. 1) These findings suggest that insurance behavior is partially dictated by incentives created by an individual's job security and that times of decreased job security, such as high unemployment, are accompanied by decreased sick leave. Arai and Thoursie also investigate this issue by exploring relationships between sick leave and employment status. Employees under temporary employment contracts experience less job security than do permanently contracted employees due to the structure of Swedish labor laws. (Arai and Thoursie) The data show a strong negative correlation between an industry sector's sick rate and its percentage of workers with temporary contracts. (Arai and Thoursie) Again, this evidence suggests that an employee's decision to report sick is influenced by the incentives or disincentives created by job security and not solely by medical need — another manifestation of moral hazard in Sweden.

In another study, Thoursie correlates the frequency of short-term sick leave with the coincidence of popular sporting events to illustrate a more egregious example of moral hazard in Sweden. (Thoursie) In this study, the 1987 world championship skiing competition

and the 1988 Winter Olympic Games serve as tests to compare short-term sick leave rates immediately before, during, and after popular sporting events. The data yield a higher incidence of sick leave among men during the sporting events than during the time periods before or after. As Thoursie explains:

[Y]ounger male workers abused the sickness insurance system.... If workers abuse the system to watching [sic] sports, such behavior might also prevail for other reasons, such as hobbies. The two events considered here were of very short duration. Aggregated over a year and considering various types of events which take place during regular working time, the effects might precipitate considerable losses in production and productivity, as well as substantial costs to the sickness insurance system. (Thoursie, p. 15)

This observed behavior pattern serves as one of the most conspicuous documented examples of moral hazard in Sweden. In this case, workers are reporting sick and utilizing social insurance protection via the reduced disincentives to be absent for the purpose of pursuing leisure activities.

In light of this supporting evidence, it becomes clear that moral hazard may be an important component to Swedish worker absenteeism trends. In each case, the presented research links the incidence of worker absenteeism to moral hazard phenomena. It is also evident that moral hazard is not a new influence in Sweden, as Henrekson's data which span from 1955–99 attest. For a specific example, I now closely examine the patterns of absenteeism in Sweden since 1998 as a case study to demonstrate how moral hazard could be considered a contributing factor to worker absenteeism.

### **Case Study: Recent Trends in Worker Absenteeism**

As mentioned in the introduction, worker absenteeism in Sweden has experienced a number of rising and declining trends in recent history. For example, worker absenteeism levels were very high in the late 1980s, fell sharply

during the early to mid-1990s, only to rise again since 1998. These trends are evident in Figure 1, which displays the number of newly granted disability pensions and paid sick days over the period of 1990–2002. To demonstrate how moral hazard can be considered a contributing factor to current trends in Sweden, I examine the nature of the most recent upward trend, which began in 1998.

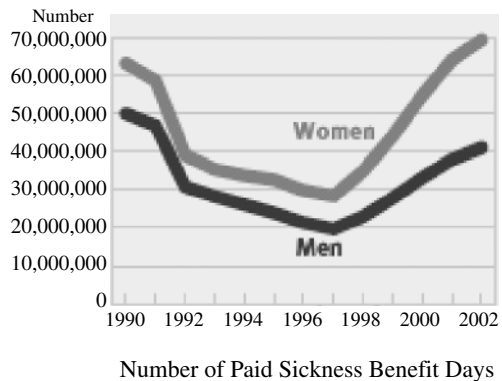
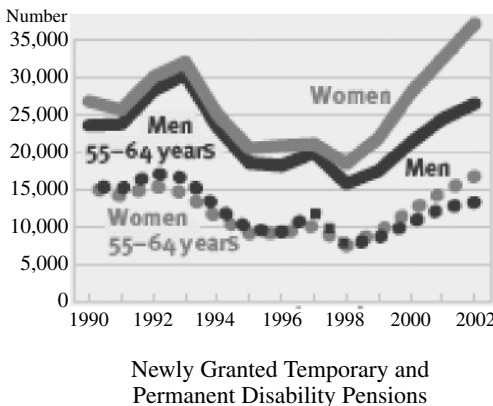
An increasing trend in worker absenteeism due to rising long-term sick leave and disability began in 1998 and continues to date. By 2002 the average duration of a sick leave spell climbed to 124 days in men and 132 in women, and the total number of paid sickness benefit days reached 110 million nationally. In the same year, the total number of persons on sick leave exceeding 60 days rose to 269,500. This is a 120 percent increase from 1996. (“Social Insurance in Sweden 2003”) Disability numbers have risen in a similar manner. Between 1998 and 2002, the number of newly granted disability pensions increased by at least 66 percent in men and 100 percent in women. (“Social Insurance in Sweden 2003”) As would be expected, trends in social insurance expenditure have followed a similar pattern. (“Social Insurance Expenditure 2001–2004...”) There is also a shift in the type of expenditure, with increasing emphasis on sickness cash disbursement and disability pension benefits. This

expenditure pattern is consistent with the increasing number of annual paid sick days and disability pensions that have given rise to worker absenteeism figures. The relation of social insurance expenditure patterns, illustrated in Figure 2, to worker absenteeism provides a good demonstration of the importance of understanding all possible contributing factors to worker absenteeism trends.

Why has worker absenteeism experienced steady increases in Sweden since 1998? Although this question may be difficult or impossible to answer fully, certain evidence suggests that moral hazard phenomena are, at least in part, contributing to these trends. As reported by Henrekson and Persson, 1998 saw a reform in the sickness insurance system that included the first increases in sickness benefits in over a decade; the last benefit increases occurred in the insurance reforms of 1987. (Henrekson and Persson) This is consistent with Henrekson and Persson’s conclusion regarding the positive correlation of worker absenteeism to benefit generosity, although their data end in 1999 and do not consider the most recent trends.

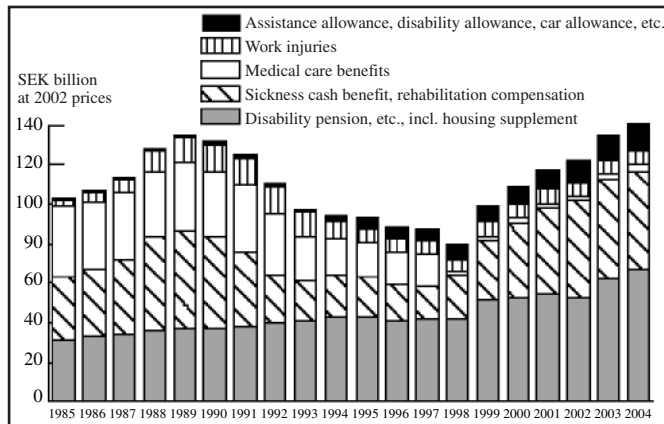
The types of worker injury most responsible for the recent increases in worker absenteeism also provide a good example to illustrate the link between moral hazard phenomena and the current incidence of worker absenteeism.

**Figure 1**  
**Trends in Sickness and Disability**



Source: Stockholm International in Sweden 2003.

**Figure 2**  
**Expenditure towards Financial Security in Sickness and Disability**



Source: Stockholm International Expenditure 2001–2004....

Worker injury in Sweden is classified into two different categories: occupational accident and occupational disease. Occupational accidents cover acute conditions, such as a laceration, while occupational diseases include more chronic ailments, such as stress-related illness. (“The Swedish Labour Market...”) These two injury categories have behaved differently in recent years, with occupational accidents increasing by seven percent and occupational diseases increasing by 36 percent between 1998 and 2000. (“More Musculoskeletal...”) This disproportional growth is important because occupational diseases have a far greater potential impact on the sickness insurance system; they are associated with much longer sick leave spells. (“More Musculoskeletal...”) It is these cases of longer worker illness that have the highest likelihood of evolving into a disability pension, and result in high cost for the social insurance system. (“Social Insurance in Sweden 2003”) Those occupational diseases typically responsible for the longest periods of worker incapacitation are musculoskeletal disorders, characterized by injuries to the body’s soft tissues, such as muscles, nerves, tendons, or joints, and are the result of a chronic condition rather than an acute incident. (“Musculoskeletal Disorders...”) Coincidentally,

it is an increase in these disorders that has fueled the rise of occupational disease in Sweden and, in turn, overall sick leave. As stated in a 2002 report, “The increase in sick leave in connection with musculoskeletal disorders is alarming and indicates that the rise in long-term sick leave is strongly linked to these disorders.” (“More Musculoskeletal...,” p. 24) Sweden therefore faces an increase in overall worker absenteeism fueled by the rising prevalence of musculoskeletal disorders — the illness associated with the highest levels of worker incapacitation. In light of this, a link between recent worker absenteeism trends and moral hazard can be established if a link between musculoskeletal disorders and moral hazard does exist. I now present research that describes such a link.

In general, musculoskeletal disorders and other chronic pain diseases are notoriously difficult to diagnose. In a statement presented to the Appropriations Subcommittee on Labor, Health and Human Services, Education by the American Association of Orthopaedic Surgeons, musculoskeletal disorders were described as follows:

Large numbers of patients who suffer from low back pain, wrist tenderness, shoulder aching, knee distress, or heel discomforts have no observ-



able objective findings. That fact does not mean their problems are not real. It does make diagnosing and studying those problems challenging. (Statement...)

This means that there is a certain amount of subjectivity in the diagnosis and treatment of musculoskeletal disorders. Therefore, it is reasonable to identify this subjectivity as possibly linking these particular disorders to moral hazard phenomena. Studies conducted in Canada and the United States support this.

Research conducted on Canada's social welfare and health insurance programs associates the incidence of musculoskeletal disorders with both benefit generosity and stringency of medical screening. (Campolieti) The data illustrate a significant positive relationship between the frequency of musculoskeletal disorder claims and the relative generosity of benefits in study areas. Also, the frequencies of musculoskeletal disorders were found to be inversely correlated to stringency of medical screening required to qualify for benefits. (Campolieti) These data suggest that musculoskeletal disorders become more prevalent with increasing economic incentives to use the health insurance program, and less prevalent with increasing stringency of medical examinations.

Data from the United States also link musculoskeletal disorders to moral hazard. In his study exploring HMO insurance incentives and moral hazard effects on injury reporting, Butler comments on the subjective nature of musculoskeletal disorders as contributing to moral hazard phenomena:

Because it is difficult to diagnose potentially work debilitating injuries (such as low back sprains and strains), moral hazard may affect frequency of claims. Even if an incident is known to have happened with certainty, it can be difficult to monitor the extent of the injury. Therefore moral hazard may also affect the reported severity of the injury. (Butler et al., 1997, pp. 192–93)

In another study, Butler examines the moral hazard effects on increased soft-tissue injury claims in the United States. As he concludes, "We find evidence that moral hazard response explains most of the 30% increase in the pro-

portion of soft-tissue injuries during the 1980s." (Butler et al., 1996, p. 1) These findings, as do those of Campolieti, suggest a strong link between musculoskeletal disorders and moral hazard. Consideration of this fact and the already established link between the recent incidences of worker absenteeism and musculoskeletal disorders suggest moral hazard as a contributing factor to these trends in Sweden. The coincidence of a sickness insurance benefit increase in 1998, the first of its kind in over a decade, also prompts similar consideration. Both instances support the need for identifying moral hazard phenomena as a contributing factor to Swedish worker absenteeism trends.

## Conclusion

I have set out to explore moral hazard as a contributing factor to the incidence of Swedish worker absenteeism. First, I presented a detailed review of the structure of the Swedish social insurance system and the nature of moral hazard to set the context for such an exploration. Second, through an investigation of available research, moral hazard phenomena are seen to contribute to the incidence of worker absenteeism in both past and present. My investigation establishes the need for consideration of moral hazard phenomena when explaining trends in worker absenteeism in Sweden. A closer examination of absenteeism increases since 1998 demonstrates how such consideration could be applied to current conditions.

Many explorations of worker absenteeism trends in Sweden have steered clear of candidly identifying moral hazard as a contributing factor. Swedish policymakers and researchers can now "connect the dots" between available evidence and attempt to evaluate objectively the role of moral hazard in determining worker absenteeism. Culturally, this will not be an effortless task, as a wonderfully generous atmosphere of worker-protection and social justice permeates the Swedish system. Equally difficult will be the implementation of any new policy designed to reduce insurance claims due to moral hazard — a vastly encompassing social benefits program is a hallmark of the Swedish tradition. In fact, when discussing insurance and moral hazard, it is easy to identify large

benefit cutbacks as a solution to moral hazard. In certain respects this seems logical; a removal of insurance incentives will consequently remove the behavior driven by those incentives. One must approach this with caution, however. To some degree the very purpose of the Swedish social insurance program is to afford citizens the right to certain behavioral changes; workers are relieved of having to work while seriously ill or physically incapacitated. The economic punishments of such conditions are, by design, alleviated. This

reduction of necessary hardship in daily life is why the welfare state exists. An overzealous tightening of insurance benefits to reduce moral hazard incentives could thus undermine the very purpose of the Swedish social insurance system. On the contrary, the results of a more active consideration of moral hazard phenomena, by providing a more complete understanding of the worker absenteeism implications of social insurance policies, should lend insight as how to best preserve this tradition in the future.

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