Pull, Kerstin

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What is the fair wage? A model of as-if-co-operation

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What is the fair wage?
– a model of as-if-co-operation

Kerstin Pull

Contents:

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1. The fair wage concept: a „catch-all“ in the discussion on wage determination

The fair wage-effort hypothesis brought forward by AKERLOF (1982) was meant to explain why workers are paid more than their market-clearing wage and why unemployment may persist as a consequence: Employers offer wages above the market-clearing level in exchange for „productivity or quality enhancing behaviors from employees“ (REBITZER/TAYLOR 1995: 678). As long as these wage increases „pay for themselves“ (LEVINE 1992), both workers and employers are able to benefit from the system of „a fair day's work for a fair day's wage“ (SOLOW 1990: 33).

But what constitutes the fair wage? Is it fair to pay a wage which is at least as high as the one paid before as e.g. AKERLOF (1982: 556), LEVINE (1993: 1242) and WADHWANI/WALL (1991: 545) assume? Is it fair to be paid the same wage as the „social neighbours“ (SCHMID 1992: 36) are? Who are these social neighbours: comparable workers in the same firm (AKERLOF/YELLEN 1990: 270), in comparable firms, or in unemployment (AKERLOF 1982: 555, COSTABILE 1996: 615)? Is the fair wage determined by the market wage (whatever this may be) as AKERLOF/YELLEN (1990: 270) suppose? Are fairness perceptions influenced by collectively set wages (SCHLICHT 1992: 438; SCHNABEL 1995: 33)? Is it fair to pay a high wage when profits are high (DICKENS/KATZ 1987: 50; LEVINE 1992: 1113; 1993: 1242; FITZROY/KRAFT 1992: 209) or when unemployment is low and local wage level and living standard are high, as SCHLICHT (1992: 447ff.) assumes?

Given its ambiguity, it does not come as a surprise that the fair wage concept has been used to explain so many of the stylized facts on wage-setting behaviour: Wages increase in time because this is regarded as fair, wages are similar for comparable workers because this is also regarded as fair, wages rise when unemployment benefits rise, when the market wage rises, when the collectively set wage rises, when profits go up, when unemployment goes down or when living standards increase. All of this is regarded as fair. The fair wage concept has thus become a „catch-all“, present whenever called upon to explain any observed particularity of wage-setting behaviour. Its success in the literature[1] might indeed be closely related to its ambiguity as a theoretical concept.

Acknowledging the importance of fairness norms in labour relations, this paper tries to substantiate what constitutes the fair wage. It will be argued that what workers and employers consider „fair“ can be interpreted as the result of „as-if-

1 See e.g. DICKENS/KATZ (1987: 84); KRUEGER/SUMMERS (1988: 278); LEVINE (1991: 238); REBITZER (1993: 1418).

co-operation": If the employer sets the wage according to the rules of a co-operative game he will meet worker fairness conceptions. The implications of this assumption are not only surprisingly compatible with the stylized facts on wage setting behaviour. They also allow for the analysis of the net effect of the determinants of the fair wage – something which is out of reach in the present state of the fair wage concept. The paper will proceed as follows: Section 2 contains a brief review of the experimental evidence on ultimatum and related games. These are presented not only to highlight the potential importance of fairness norms in labour relations (section 2.1), they also hint at the idea of the fair wage being the result of as-if-co-operation (section 2.2). Section 3 presents a simple model where the fair wage is assumed to be the result of as-if-co-operation and confronts the model implications with the stylized facts on wage setting behaviour, section 4 contains a short summary.

2. Experimental games and the concept of as-if-co-operation

2.1 Ultimatum and related games: their relevance for labour relations

What do economic agents consider as fair? What in particular is a fair wage? Experimental game theory might give the answer. In the so-called *ultimatum game*, where one person (player 1) is asked to divide a given amount of money between another person (player 2) and himself and where then player 2 can decide whether to accept this division or walk away (in which event none of the two gets anything) it has been shown that people do not at all behave in accordance with the prescriptions of economic theory: Instead of offering only a marginal amount to player 2 (which – assuming "rational" behaviour of player 2 – should then be accepted as it is better than nothing), „offers typically average about 30-40 percent of the total, with a 50-50 split often the mode" (CAMERER/THALER 1995: 210).[2]

Why should player 1 behave in this way? Why should he offer more than just a marginal amount? Is he led by a fear of rejection? There is indeed experimental evidence from ultimatum games illustrating that player 2 is ready to reject small

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2 In the experiment run by GÜTH/SCHMITTBERGER/SCHWARZE (1982) proposing players offered about 35% of the cake on average (cf. KIRCHSTEIGER 1994: 347), STRAUB/MURNIGHAN (1995: 353) report mean offers between 33% and 46%. According to CAMERER (1997: 169) the typical offer is 40-50 percent of the amount at stake, the experiment having been replicated in several countries for stakes up to an amount of two months' wages.

amounts.[3] Player 2 might be led by equity norms (SELTEN 1978; GÜTH 1994). the violation of which might weigh high enough to make him not accept the offer even though he can only lose on this. Player 2 then might seek to „punish“ player 1 for an „insultingly low” offer (GÜTH/DAMME 1994: 1) or in BOLTON's (1997: 366) words: „acquiring a 'fair share' seems a strong motivation force”.[4]

But even in *dictator games* player 1 (the dictator) passes a positive amount to player 2, even though the latter cannot veto his decision (STRAUB/MURNIGHAN 1995: 348). Player 1 thus apparently does also act according to *internalised* norms of fairness and equity when offering more than marginal amounts and is not only led by fear of rejection but also by a „do-as-you-would-be-done-by principle” (BINMORE 1998: 276). Still, the fact that offers in dictator games generally are „not quite as fair“ as those in ultimatum games (CAMERER 1997: 169) again seems to question the idea of *internalised* norms of fairness as being the sole explanation for the observed behaviour in ultimatum and related games.[5]

Nevertheless, there seem to be forces at work that lead the parties to an agreement that standard (non-co-operative) game theory cannot explain. Can these forces (which will be analyzed in more detail in section 2.2) explain wage-setting behaviour as well? In labour relations it is the employer who acts as player 1 and offers a wage to the worker (player 2). As in the ultimatum game the worker can indeed „punish“ the employer, e.g. through the choice of a low effort level. The employer then might not be left with nothing if punished by the worker for an „insultingly low” offer but he ends up in a situation where what is left to him is less than what he could have gained if he had offered a „fairer distribution“. The worker, too, does receive his share, but he also could have been better off.

However, it might be argued, ultimatum game experiments differ in important respects from wage determination: *First*, while players in ultimatum games typically cannot interact, employer and worker typically can. It has been shown, how-

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3 GÜTH/SCHMITTBERGER/SCHWARZE (1982: 384) report „subjects do not hesitate to punish if their opponent asks for 'too much'“; KIRCHSTEIGER (1994: 374) speaks of „non-negligible“ rejection rates. According to KNEZ/CAMERER (1995: 2f) rejection rates in ultimatum game experiments vary from 5 to 25% – the mean rejected offer being as high as 20% of the amount divided. Especially low offers are typically rejected by a majority of respondents: In the experiment run by STRAUB/MURNIGHAN (1995: 352) about 75% of the respondents rejected an offer of $0.01.

4 The result of STRAUB/MURNIGHAN (1995: 352) seems to support this interpretation: if respondents did not know the size of the cake and could not judge it to be either „insultingly low“ or „only fair“ the rejection rate for an amount of $0.01 fell from about 75% in the full information case to only just 40%.

5 The result by STRAUB/MURNIGHAN (1995: 348) who report that „when respondents did not know the amount being divided, offerers offered ... significantly lower offers“ hints in the same direction. See also the evidence reported in footnote 9.

ever, that the more the parties are allowed to interact, the *higher* the probability that fairness norms are activated (FREY/BOHNET 1995: 291f.). Fairness considerations thus should be even more important in labour relations than in ultimatum games. *Second*, it might be argued, while what is at stake in ultimatum games comes as a „gift", wages and remaining profits are typically regarded as something which has been „earned" by the parties. In the so-called *reward allocation game*, however, where both parties have to perform a common task before player 1 gets the chance to distribute a sum of money, the equal division of the amount at stake again is „a frequent outcome" – even in those cases where player 1 is told that he contributed more to the common goal than player 2 (SELTEN 1978: 290f.). In labour relations fairness norms then should play at least an equally important role as in ultimatum game experiments. *Third*, while the two players in ultimatum games cannot choose among a range of possible bargaining partners, employers and workers typically can. If there e.g. is excess supply of workers the risk of rejection which presumably is one of the forces leading player 1 to offer a „fair" distribution could be less relevant for the employer than it is for player 1 in the ultimatum game. FEHR ET AL. (1998: 329) can indeed show that this „competitive element" of labour relations might reduce wage offers in case there is excess supply of workers as compared to the situation in the standard ultimatum game experiment. These competitive forces, however, lose their effect when the game is repeated for a few rounds. The often long-term character of labour relations thus should reduce the competitive element. In so far as labour relations involve specific investments and successively lead to a situation of a bilateral bargain between employer and worker the competitive element should turn more and more negligible.[6]

The empirical evidence on ultimatum game experiments consequently should be of relevance for labour relations. If fairness plays a role in ultimatum game experiments it should do so as well in labour relations. But what else can be learned from experimental games? Are there any hints as to the determinants of the ultimatum game solution? Can we derive a *model* that is capable of capturing the determinants of the wage setting process as well? The following section tries to give an answer.

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6 Apart from that, proposers can be expected and are also observed to learn from past behaviour. If they, e.g., underestimated respondents' readiness to reject low offers in previous rounds they typically adjust their offers subsequently (even if they play against a different respondent in each round): In the repeated ultimatum game experiment cited by ROTH (1995: 277), where offerers played ten consecutive games against different respondents, mean offers in the last round were about 10 percent higher than the ones in the first round.

2.2 The concept of as-if-co-operation: the invisible hand of the fair arbitrator

In what follows it will be argued that even though players in ultimatum game experiments find themselves in a non-co-operative game, they seem to behave *as if* they were taking part in a co-operative game: The solution they typically arrive at is not only in sharp contrast to the solution rational players ought to arrive at according to (non-co-operative) game theory but it surprisingly resembles the solution one would expect in a co-operative game (where binding agreements can be signed – something which is obviously not the case in the ultimatum game experiment). Players in ultimatum games seem to behave *as if* they had signed a binding agreement. They apparently have an (implicit) understanding of how the amount at stake should be divided between them – the understanding being to divide the cake according to the rules of a co-operative game.

What are the rules of a co-operative game? What is the solution prescribed? Co-operative game-theory is best been represented by its most prominent solution, the NASH bargaining solution (NASH 1950, 1953).[7] According to this solution, two players in a co-operative game reach an agreement where the product of their utility gains (compared to their fall-back positions) is maximized.

Let V represent utility of player 1 and U utility of player 2, respectively, with $\overline{V}$ and $\overline{U}$ representing the relevant fall-backs. Then the NASH bargaining solution is given by maximizing the so-called NASH product Ω:

$$\Omega = (V - \overline{V}) \cdot (U - \overline{U}) \tag{2.2.-1}$$

The NASH bargaining solution of a co-operative game where a given amount has to be divided among two players and where the relevant fall-back-positions both are zero (none of the two gets anything when no agreement is reached as is the case in ultimatum games), results in an equal division of the amount at stake: Let utility of player 2 still be denoted by U and what is left to player 2 by (1-U) (the size of the cake being standardized to 1), then the NASH product is given as follows:

$$\Omega = (1 - U) \cdot U = U - U^2 \tag{2.2-2}$$

Maximizing with respect to U gives:

$$U^* = 0.5\,;\; V^* = 0.5 \tag{2.2-3}$$

Equity theory, however, is also capable of explaining the equal split in ultimatum games: According to equity theory, it would be regarded as fair if the two players

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7 As in CARLIN/SOSKICE (1990: 393) „... this is not the place to conduct a survey of bargaining theory [...] It is reassuring to note that, although the different approaches to bargaining solutions use quite different arguments, they turn out to produce similar results."

received a share of the amount at stake corresponding to their respective inputs (GÜTH 1994: 156). As the positions of the two players are assigned arbitrarily in the standard ultimatum game, and non of the two has "earned" his position in the game, they both should walk away with the same amount. But equity theory only applies to situations where players, apart from their possibly different inputs, are identical. Differences in power, however, representing a major characteristic of labour relations, cannot be accounted for by equity theory.[8] In that context the *asymmetric* version of the NASH bargaining solution applies.

Let λ_1 denote bargaining power of player 1, and λ_2 bargaining power of player 2 with $0 < \lambda_1, \lambda_2 < 1$ and $\lambda_1 + \lambda_2 = 1$. According to the asymmetric NASH bargaining solution the two players reach an agreement where the product of their utility gains, weighted by their respective bargaining powers, is maximized:

$$\Omega = (V - \overline{V})^{\lambda_1} \cdot (U - \overline{U})^{\lambda_2} \tag{2.2-4}$$

Applying this to the situation of dividing a cake of size 1 between two players results in:

$$\Omega = (1 - U)^{\lambda_1} \cdot U^{\lambda_2} \tag{2.2-5}$$

Taking logs and maximizing with respect to U gives:

$$U^* = \lambda_2 \text{ , } V^* = \lambda_1 \tag{2.2-6}$$

What is assigned to the parties immediately results from the distribution of bargaining power. The better the bargaining position of a player the larger his share in the game.[9]

In what follows it will be assumed that people faced with the problem of having to share behave *as if* they found themselves in a co-operative game and offer a distribution according to the NASH bargaining solution taking account of differences in bargaining power. In the literature the NASH bargaining solution is regularly described as „agreement a fair arbitrator would suggest" (DE MENIL 1971: 7; see also: MCDONALD/SOLOW 1981: 904; CURRIE 1994) where the fair arbitrator is „fair" in so far as he sticks to the arbitration procedure set up by the bargaining

8 SELTEN (1978: 298), too, calls wage bargaining a „non-equitable distribution conflict", where equity theory „cannot be applied".

9 The results of GÜTH/DAMME (1994) who introduced a third, but inactive, (dummy) player in the ultimatum game are illustrative: While player 1 offers about 30% of the stake to player 2 (whose veto would leave all of them with nothing) he offers only 5-10% to player 3 (the dummy player). Undoubtedly player 2 is in a much better „bargaining position" than player 3. At the same time, however, the experiment (and the above cited evidence on dictator games) illustrates that bargaining power is not necessarily being „exploited" by the bargaining partners. But obviously an unequal distribution of bargaining power would result in a deviation from the equal split suggested by equity theory in favour of the party who is in the better bargaining position.

partners (CARLIN/SOSKICE 1990: 392). Assuming the NASH bargaining solution to be the one people agree on (in ultimatum games as well as in labour relations) is equivalent to assuming that people accept the division a fair arbitrator would have suggested. The fair arbitrator, of course, is not there; it is his „invisible hand" that leads the parties to the agreement both can accept.

What is this agreement in the wage determination process? What are the determinants of the fair wage – once we accept the NASH bargaining solution to represent people's fairness perceptions? This, of course, crucially depends on the specification of worker and employer utility and their respective bargaining positions.

3. The fair arbitrator at work: What determines the fair wage?

3.1 Model specification

Let worker utility be given in wage w and employer utility in profits Π, the latter being a function of returns R and labour costs $w \cdot L$, where L stands for employment and labour is the only (and homogenous) input. Let returns be increasing in wages (at diminishing rates) to capture the idea that higher wages evoke higher effort levels and that these in turn have positive effects on output quantity or quality. Let fall-back utilities of both, worker and employer, for simplicity at this point each be 0. Let λ_1 denote bargaining power of the employer, and λ_2 bargaining power of the employee with $0 < \lambda_1, \lambda_2 < 1$ and $\lambda_1 + \lambda_2 = 1$.[10]

$$U = w \tag{3.1-1}$$

$$V = \Pi = R(w) - w \cdot L \qquad \text{with:} \qquad R' > 0;\ R'' < 0 \tag{3.1-2}$$

$$\overline{U} = \overline{V} = 0 \tag{3.1-3}$$

The NASH-product Ω is then given by:

$$\Omega = (R(w) - w \cdot L)^{\lambda_1} \cdot w^{\lambda_2} \tag{3.1-4}$$

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10 Although extremely simplifying, these assumptions are not at all uncommon in the literature on wage bargaining: The assumption that worker utility is a function of the wage rate only and that employees are risk-neutral is made e.g. by MUYSKENS/VEEN (1996), HOLDEN (1988, 1990), MOENE (1988), MCDONALD/SUEN (1992) and FEHR (1990). Employer utility almost always is determined by profits alone, and employer risk-aversion is generally not taken into account (see e.g. AOKI 1984; DE MENIL 1971; NICKELL/ANDREWS 1983; NICKELL 1984). Fall-back utilities of 0 are assumed e.g. by LINDBECK/SNOWER (1991) and OSWALD (1987). See footnote 17, however, to see what would happen if positive fall-back positions were assumed.

Taking logs and maximizing with respect to w gives:

$$w^* = \lambda_2 \cdot \frac{R}{L - \lambda_1 \cdot R'} \tag{3.1-5}$$

The fair arbitrator would set a wage w* increasing in worker bargaining power λ_2, increasing in returns R, decreasing in the employment level L and increasing in the sensitivity of returns with respect to wages R'.[11]

While returns, employment level, and the effect of wages on returns are well understood as theoretical concepts (although not necessarily easily measured empirically) the determinants of worker bargaining power are „rather controversial" (DALMAZZO 1995: 121), to say the least. However, it should be rather uncontroversial to assume bargaining power to be a function of „the availability of alternative sources of income"[12] on the one hand and „the degree of commitment to the outcome at stake in the bargaining" on the other (EMERSON 1962). Applied to labour relations one would then expect worker bargaining power to be the higher the better his chances on the external labour market (the better his „alternative income sources") and the more the employer has invested in the relation in terms of firm-specific training (the greater the employer's „commitment" to the labour contract or the greater his risk to be held-up by the worker).

3.2 Implications, plausibility and empirical evidence

Starting with the idea of worker fairness perceptions being influenced by what a fair arbitrator would have suggested and accepting the specifications of the proposed simple model of as-if-co-operation the question on the determinants of a fair wage can be answered as follows:

- The better the outside options of a worker (the higher the wage he could get elsewhere and the better his chances to get a job elsewhere) and the easier the worker can hold-up the employer (the more the employer has „invested" in worker specific human capital), the better the worker's bargaining position and the higher the fair wage and, as a consequence, the higher the effectively paid wage.

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11 A necessary condition for equation 11 to prescribe a maximum is:
$dV/dU = R' - L < 0$

This is equivalent to the requirement of PARETO-optimality.

12 It should be noted that these outside options are to be differentiated from the fall-back positions. See BINMORE/RUBINSTEIN/WOLINSKY (1986: 185) for a general discussion of this question.

That wages typically increase when regional unemployment decreases is widely accepted and summarized in the literature on the wage curve.[13] A correlation between regional wage rate and wage level has also been frequently found.[14] In so far as a worker's general human capital can serve as an indicator for his ability to find another job the correlation between „years of education" and wage level as measured by numerous empirical studies on the relevance of MINCER earnings functions provides further support to the model of as-if-co-operation.[15]
A direct test on the correlation between worker specific human capital and wage level is not available. However, with the help of „QUIPPE", a data set on the personnel policies of European firms where more than 80 firms in 4 different countries were questioned (see BACKES-GELLNER/BÖCK/WIENECKE 1994) it can be shown that the more workers participated in further training (as a percentage of all workers in the firm) the higher the wage paid in the firm (PULL 1996: 178).

- The higher returns, the higher the fair wage and the higher the effectively paid wage.

HOLDEN (1990), e.g. can show a positive correlation between effectively paid wages and returns; SCHNABEL (1994: 17) finds a close long-term relationship between effectively paid wages and firm-level gross valued added (in real terms).

- The lower the employment level, i.e. the less workers there are who demand a share of what is at stake, the higher the fair wage and the higher the effectively paid wage.

A correlation between employment and wage level has been shown in numerous empirical studies – always in the direction prescribed: the higher the employment level (capital input being held constant) the lower the wage.[16]

- The larger the sensitivity of returns with respect to wages (the greater the possibilities of the worker to influence the size of what is at stake, and the more

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13 See CARD (1995) for a review. MCDONALD/SUEN (1992) who try to measure worker bargaining power empirically also identify „unemployment" as a major determinant of trade union power (and, as a result, of the wage level). Also the fact that GERLACH/WAGNER (1995) have failed to show a correlation between regional *long-term*-unemployment and the regional wage rate seems to fit the model: A low level of regional unemployment enters the wage equation as a determinant of worker bargaining power: the worker can „threaten" to quit the job and work elsewhere without incurring high costs to himself. The level of long-term-unemployment, however, can be expected not to directly influence the worker's chances of finding a new job once he quitted the old one: the long-term-unemployed are typically expected not to be true competitors for vacancies in the regional labour market (see e.g. SCHLICHT 1995).

14 See e.g. BLANCHFLOWER/OSWALD/GARRETT (1990); NICKELL/WADHWANI (1990); HOLMLUND/SKEDINGER (1990).

15 In their empirical analysis of British establishments BLANCHFLOWER/OSWALD/GARRETT (1990: 159) even find „no evidence of insider influence in the unskilled non-union sector".

16 See e.g. ABOWD/KRAMARZ/MARGOLIS (1994); FITZROY/KRAFT (1992), DICKENS/KATZ (1987), NICKELL (1988) or ERIKSSON/SUVANTO/VARTIA (1990).

he is likely to be motivated by a higher wage), the higher is the fair wage and the effectively paid wage.

> In the analysis by MEYER (1994: 227f) the wage gap (difference between the collectively set wage and the actually paid wage) was higher if wage setters assumed income to be a good motivator. TESCHNER (1977) reports that effectively paid wages are higher for workers in responsible positions, i.e. in positions where the direct and indirect influence on output can be expected to be rather large. BLANCHFLOWER (1991), too, comes to the conclusion „[b]eing a supervisor raises pay".

The implications derived thus seem to be plausible and fit the stylized facts of wage setting behaviour.[17] Unlike the fair wage concept in its current state the presented model of as-if-co-operation allows for the derivation of hypotheses on possible cross effects between the determinants of the fair wage and on the question if an increase in, e.g., worker bargaining power would result in increasing, constant or diminishing increases in the fair wage. Among others, the following hypotheses can be derived:

- The fair wage should increase when regional unemployment decreases or the regional wage rate goes up, and it should do so at *diminishing* rates:

$$\frac{\partial^2 w}{\partial \lambda^2} = \frac{-2 \cdot \overbrace{(L - R')}^{>0} \cdot R'}{\underbrace{(L - \lambda_1 \cdot R')^3}_{>0}} < 0 \qquad (3.2\text{-}1)$$

  The same is true for a worker's specific human capital which is also assumed to influence the fair wage through its effect on bargaining power. We would thus expect diminishing rates of return for specific human capital accumulation – something which is regularly assumed for human capital accumulation in general and typically justified by decreasing productivity effects as the level of already acquired human capital increases. Here, however, diminishing rates of return for specific human capital accumulation result from a decreasing effect of bargaining power on the wage level.

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17 It also seems to be of interest what would happen if fall-back utilities were not assumed to be equal to zero. Here the collectively set wage or minimum wage enters the model. It can be shown that under reasonable assumptions the collectively set wage has a positive influence on the fair wage (see PULL/SADOWSKI 1997: 73f) – even when the fall-back position of the employer is assumed to rise with the fall-back position of the worker (see MUYSKENS/VEEN 1996): The higher the collectively set wage, the higher is the fair wage (within the limits of profitability). According to BLUM (1983: 264), KÜLP (1976: 111) and ROBAK (1978: 49, 91) actually paid wages and collectively set wages are indeed highly correlated. The wage gap on the other hand seems to decrease when the collectively set wage increases (SCHNABEL 1994: 19f; LEVER 1991) – an implication which can also be derived from the model of as-if-co-operation (see PULL/SADOWSKI 1997 for the details).

- Furthermore we would expect the effect of regional unemployment, regional wage level and specific human capital to be larger, when returns are high:

$$\frac{\partial^2 w}{\partial \lambda_2 \partial R} = \frac{L - R'}{(L - \lambda_1 \cdot R')^2} > 0 \qquad (3.2\text{-}2)$$

  In a situation where returns are high (and wages are, too) a change in labour market conditions should result in a larger change of the wage than in a situation where returns are low: With higher returns the component of the wage which is determined by bargaining power (the share of returns that adds to the fixum given by the fall-back-position) increases.

In the same way hypotheses on possible cross-effects between the other determinants of the fair wage can be derived. They demand an empirical test, however, which is beyond reach in this paper. The fact that the bivariate implications already fit the stylized facts is promising and will hopefully inspire further empirical as well as theoretical work on the fair wage concept.

4. Summary

The fair wage concept has become a catch-all used to explain virtually any observed particularity of wage-setting behaviour. Acknowledging the importance of fairness in the wage determination process an attempt is made to model worker fairness conceptions. Based on experimental evidence in ultimatum games it is argued that worker fairness conceptions might be influenced by what the result of a co-operative game would have been, i.e. by what a fair arbitrator would have suggested. The fair wage then becomes a function of worker outside options, employer commitment in the contractual relation, employment level, returns and the sensitivity of returns with respect to wages. The implications derived are compatible with the stylized facts of wage determination. Unlike the fair wage concept in its current state the proposed model of as-if-co-operation allows for the analysis of possible cross-effects concerning the determinants of the fair wage. Their test is left for further studies.

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