

Social absorption and social individuation: Dutch validation

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Social absorption (SA) and social individuation (SI) are two dimensions that may help understand and predict the quality of interpersonal experiences and relationships (Ickes, Hutchison, & Mashek, 2004). A Dutch translation of the SA and SI scales was validated with a circumplex of interpersonal adjective scales, vulnerability factors to depression and attachment style dimensions among a sample of 429 Flemish and Dutch Open University students. Confirmatory factor analysis revealed that SA consisted of two subfactors; SI was shortened for reliability reasons. Subsequent correlational analyses revealed that both SA subfactors correlated positively with warm and assertive interpersonal behaviours, secure attachment style and sociotropy. The shortened SI factor correlated positively with cold and aloof interpersonal behaviours, autonomy and fearful and dismissive attachment. A graphical projection of scales in the interpersonal circumplex further informs the reader about behavioural commonalities between all the variables. (*Netherlands Journal of Psychology* 65, 40–52.)

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Deep, superficial and suffocating are only three of many possible adjectives to describe and evaluate one's experiences in relating to others. Social absorption (the experience of 'merging with others') and social individuation (making a strong 'distinction between self and other') are two relatively new personality dimensions that may contribute to understanding our individual likelihood of having some of those experiences more than others – and with it, of having satisfy-

ing interpersonal relationships (Ickes, Hutchison, & Mashek, 2004).

Beside relationship quality, social absorption and social individuation shed some empirical light onto the nature of intersubjectivity. Intersubjectivity is conceived of as a basic feature of consciousness that makes social relating possible (Morganti, Carassa, & Riva, 2008). The precise nature and form of intersubjectivity has become an increasing focus of debate, as it is receiving ever more attention in philosophy, communication theories, neuroscience, evolutionary and social psychology (Morganti et al., 2008).

Below, we introduce Ickes et al.'s (2004) conception of intersubjectivity and discuss the theoretic-

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cal and factorial background of social absorption and social individuation. We then provide an overview of previous research into the predictive, convergent and discriminant validity of these constructs. This account forms the basis for the current goals: to provide a translated version of Ickes' Social Orientation Scale and to extend the existing knowledge of its validity by integrating it with behavioural and cognitive constructs.

Theoretical background and development of the Social Orientation Scale (SOS)

Ickes et al. (2004) state that a relationship is intersubjective insofar as two people 'share – and agree that they share – a common interpretation of what lies within their joint experience' (p. 358). Ickes et al. (2004) reason that if Ann and Billy knowingly share the conviction that they are soul mates, their conviction is intersubjective and their relationship can be called 'true'. Insofar as Billy does not share Ann's conviction, Ann's conviction is merely subjective, and the relationship only exists in her imagination. Also, insofar as Billy averts becoming behaviourally and cognitively interdependent with Ann, the chances that they will ever share any broad common (intersubjective) ground at all are small. For friendships and romantic relationships, it follows that people who are open to cognitive and behavioural interdependence will have better odds at developing true, meaningful intersubjective connections than people who are not.

Ickes developed an individual difference measure that may help explore this theoretical underpinning of intersubjectivity. He performed a review of theoretical conceptions of social relating. Among social psychological conceptions is Zimbardo's (1969) contrast between individuation as a psychological state in which individuals clearly distinguish their own identities, roles and responsibilities, and deindividuation as a 'merging' of self and others whereby boundaries dissolve as individuals become more cognitively and behaviourally interdependent. Similarly, Aron, Aron and Smollan (1992) contrasted a mode of social relating whereby individual identities are separate and distinct, with the mode of self-expansion whereby a significant other is 'included in the self', as partners form an intersubjective system of shared cognitions and behaviours. Ickes (2002) defined subjective social cognition as the product of imagined, remembered or anticipated interaction, and intersubjective social cognition as the product of real, ongoing social interaction. Since subjective social cognition only occurs in one person's mind, the 'other' is only an abstraction. In contrast, intersubjective social cognition involves that we apprehend the other's subjectivity as it 'meshes' into our own. For the full review, which also treats phenomenological and existentialist con-

ceptions of intersubjectivity, see Ickes et al. (2004).

In all of the theoretical perspectives, Ickes noticed two posited modes of social relating. The first mode is characterised by relatively strong self-other distinction, little behavioural interdependence and a lack of the experience of merging. The second is characterised by relatively weak self-other distinction, high behavioural interdependence and the experience of merging. He then formulated 18 self-report items, assessing people's degree of (1) 'self-other distinction', (2) 'merging with others' and (3) 'behavioural interdependence'. Subsequent studies totalling over 1700 respondents revealed not three, but two orthogonal factors (Hutchison & Ickes, 1999). One factor, labelled social absorption (SA), reflects the behavioural propensity to merge and become interdependent with others; the other factor, labelled social individuation (SI), reflects the propensity to maintain a strong cognitive distinction between self and others. Because social absorption and social individuation appear to be orthogonal, not two, but four modes of social relating can be distinguished that were labelled anonymous independence (low SA / low SI), individuated aloofness (low SA / high SI), deindividuated merging (high SA / low SI), and individuated interdependence (high SA / high SI) (see Ickes et al. (2004) for an in-depth interpretation of these modes and their implications for theoretical models of intersubjectivity).

Previous validation studies

In a first study to investigate the social behavioural implications of social absorption and social individuation, Hutchison (1999) observed the behaviour of strangers in dyads of all four combinations (individuals who had both scored low SA-low SI, or both low SA-high SI, and so on); only extreme scorers had been recruited. The experimenter asked the strangers to take place on one couch and wait when she left the room. After six minutes, the experimenter returned, informed the participants that they had been filmed with a hidden camera and asked for their consent to use the footage as data. Unexpectedly, some of the low SA-high SI participants became visibly upset, protested anxiously and did not give consent before ample reassurance that nobody but the researchers would ever see the tape. At first, the data revealed few behavioural differences between the dyad types, such as in the amount of talking and smiling, but when asked to look for behaviour like that of the protesters, observers rated the low SA-high SI participants as unusually wary, suspicious and distant of each other. Wondering if low SA-high SI individuals would even keep their romantic partner at a distance, Mashek and her colleagues (see Ickes et al., 2004) surveyed 449 students in dating relationships. Indeed, compared with the

other types, low SA-high SI individuals felt less close and desired less closeness, resisted becoming involved with their partners and disliked becoming known by them. In extremis, Ickes et al. (2004) interpreted the low SA-high SI mode as a possible sign of personality disorder, characterised by existential alienation through objectifying self and others, and a fear of being objectified by others.

In a related study, high social absorption scores were also associated with desiring less closeness with the partner, which suggests that highly socially absorbed people may become so involved with their partner that they need to 'come up for air', whereas low SA people seem to come 'nowhere near the water' (Mashek & Sherman, 2004, p. 352).

Charania and Ickes (2007) found that social absorption and social individuation made unique contributions in predicting marital satisfaction over the more established predictors attachment anxiety and avoidance. Attachment anxiety presumes a desire for closeness but negative partner expectations; avoidance presumes negative partner expectations and no desire for closeness (Hazan & Shaver, 1987). Using a dyadic survey among 400 couples, Charania and Ickes (2007) found that satisfaction was highest when both partners scored high on social absorption. Partners with high social individuation scores were dissatisfied if their spouse scored relatively low on individuation, suggesting that people who are characterised by a high need for self-other distinction are dissatisfied if their spouse fails to respect this. The researchers concluded that the social individuation measure may help marriage counsellors to identify boundary issues within couples, and that social absorption may be a better indicator than avoidant attachment for marital satisfaction.

Finally, the above studies also collected validity information that supports the notion of social absorption and social individuation as relatively stable personality variables. For instance: social absorption correlated positively with the Big Five dimensions extraversion, agreeableness and openness to experience, and negatively with avoidant attachment. Social individuation correlated positively with conscientiousness, negatively with agreeableness, and positively with anxious attachment. Interpreting their validity findings, Charania and Ickes (2007) stated that '... people who score high (vs. low) in social absorption tend to be supportive and understanding in their relationships, along with being positively responsive and attached to their partners. In contrast, people who score high (vs. low) in social individuation tend to maintain greater distance from their partners and to experience greater anxiety' (p. 203). The positive correlation of social individuation with conscientiousness was interpreted as a tendency to properly categorise the world, which is also evident in the distinction of self and other (Ickes et al., 2004).

Taken together, these studies indicate that social absorption and social individuation play unique and powerful roles in the quality of human relating beyond more established personality variables such as attachment.

The present study

The present study aimed to provide a Dutch version of Ickes' measures for social absorption and social individuation and to extend our understanding of their validity. For these purposes we selected questionnaires from three related theoretical domains: interpersonal theory (e.g., Horowitz, 2004), depression theory (e.g., Blatt, 2004) and attachment theory (e.g., Mikulincer & Shaver, 2007). These theories share the notion that two fundamental motivations determine (and perpetuate dysfunctional) interpersonal behaviour: agency and communion (Bakan, 1966; McAdams, 1994). McAdams (1994) defines agency as 'the tendency to separate self from others, to master, dominate, and control the environment' (p. G-2) and communion as 'the tendency to merge or unite with others, to surrender the self as part of a larger whole' (p. G-2). Clearly, social absorption parallels the communal need to merge with others and social individuation matches the agentic need to differentiate from others. From a heuristic point of view we expect meaningful relationships to emerge between constructs that share a similar theoretical foundation.

In the present validation study we included a circumplex of interpersonal adjective scales (cf. Wiggins, 1979). The interpersonal circumplex (Leary, 1957; Wiggins, 1996) positions the full spectrum of specific interpersonal behaviours in a circle around two bipolar axes, which are best known as power (submissive vs. assertive) and affiliation (cold vs. warm); according to Horowitz (2004) these main axes mirror the agentic and communal orientations, respectively. Reserved behaviour is to be found in the cold-submissive quadrant, open-heartedness in the warm-assertive quadrant. Consequently, we predict social absorption to be situated in the warm-assertive quadrant (Hypothesis 1) and social individuation in the cold-submissive quadrant (Hypothesis 2). A distinct advantage of a circumplex is that it offers an integrative (two-dimensional) visual background for other 'interpersonal' variables (Wiggins & Broughton, 1991; Van Geel, 2000; see Figure 1).

As for depression theory, the personality dimensions of sociotropy and autonomy are assumed to make a person vulnerable to depression (Beck, 1983; Blatt, 2004). Sociotropy reflects the excessive reliance on, or investment in, significant others, and intense needs for acceptance and love from others. Autonomy subsumes the excessive investment in personal achievement, excessive demands for accomplishment and con-

trol, and relentless self-criticism when stringent self-standards are not met (Alden & Bieling, 1996; Beck, 1983; Blatt, 1974; Nietzel & Harris, 1990). These two constructs are reminiscent of what in the literature is known as ‘unmitigated communion’ (the tendency to focus on others to the exclusion of self) and ‘unmitigated agency’ (the tendency to focus on self-development to the exclusion of others) (Helgeson, 1994). Mashek and Sherman (2004) noted overinvolvement in others as a possible downside of social absorption. Ickes et al. (2004) observed that so-called low SA-high SI individuals were more self-critical, specifically ‘more likely to feel humiliated or embarrassed’, and ‘more likely to hate themselves’ (p. 371). On these grounds we expect a positive correlation between social absorption and sociotropy (Hypothesis 3), and social individuation to correlate positively with autonomy (Hypothesis 4).

As for attachment, we used Bartholomew’s (1990; Griffin & Bartholomew, 1994) four attachment styles based on positive or negative generalised images of the self and other people: secure (positive view of self and others), preoccupied (negative view of self, but positive view of others), fearful (negative view of self and others) and dismissive (positive view of self, yet negative view of others) (for a detailed description of these attachment prototypes, see Bartholomew & Horowitz, 1991, p. 244). Compared with findings in Ickes et al. (2004) and Charania and Ickes (2007), we expect social absorption to show a positive correlation with secure attachment (Hypothesis 5) and a negative correlation with dismissive attachment (Hypothesis 6). In addition, we expect social individuation to correlate positively with dismissive attachment (Hypothesis 7).

Finally, to probe whether social absorption and social individuation indeed influence the odds at maintaining close or other relationships, we asked the respondents about their social network. We predict that more people with high social absorption (vs. low) maintain very close friends as well as many other contacts (Hypothesis 8) and vice versa for social individuation (Hypothesis 9).

Method

Design, participants and procedure

The hypotheses were examined in a survey, using an online self-report questionnaire of 139

items, including an assessment of respondents’ demographic characteristics.

The participants were recruited from the student population of the Open University of the Netherlands (OUNL). This population is geographically well spread over Flanders and the Netherlands and has a broader age range than regular university populations. An invitation to participate was posted in 64 newsgroups of the internal computer network of the OUNL; it was also distributed on flyers in all ($n = 21$) Flemish and Dutch study centres of the Open University. The invitation directed participants to an internet address for the online questionnaire with further instructions. Anonymity was guaranteed and the incentive for participation was general feedback concerning the findings of the study, which – on request – was sent to respondents by e-mail. In total, 429 respondents completed the questionnaire (139 men, 290 women; mean age = 40.6 years; $SD = 10.63$).

Measures

The original SOS items (Table 1) were translated by the first author and judged for any discrepant associations by Dutch and Flemish reviewers proficient in English or bilingual, until agreement was reached. All 18 SOS items were scored on a Likert scale ranging from 1 (very uncharacteristic) to 4 (very characteristic), in accordance with Charania and Ickes (2007).

The interpersonal circumplex was operationalised with a shortened Dutch version of Wiggins’s (1979) Interpersonal Adjective Scales (IAS-48; Van Geel, Castelijns, Heldens, Dercks, & Reith, 2006). Respondents rated themselves 1 (not at all) to 5 (extremely) on 48 adjectives that describe interpersonal behaviour, such as respectful, aloof and assertive. Initial studies on the factorial structure of the IAS-48 revealed that the theoretically intended (two-dimensional, circular) structure could only be approximated sufficiently by making a selection of the original 48 items; the additional requirement for reliable scales narrowed the number of items per scale even further (Castelijns, 2007; De Schutter, 2007; Bentsink, 2009). Eventually, 31 items were retained (Table 1) to form eight reliable scales that approached the circumplex structure as envisioned (Figure 1).

Table 1 Composition of eight Interpersonal Adjective Scales (IAS-31) and coordinates of scales in ideal octagonal configuration

Items	Coordinates in ideal octagon		Ideal angle with horizontal axis
	dim1	dim2	
FRIENDLY, loving, respectful, considerate	1.000	0.000	0°
OPEN, lively, cheerful, enthusiastic	0.707	0.707	45°
ASSERTIVE, confident, powerful, determined	0.000	1.000	90°
AUTHORITARIAN, domineering, brutal	-0.707	0.707	135°
CALCULATING, cunning, sly, callous	-1.000	0.000	180°
ALOOF, distant, reserved, reticent	-0.707	-0.707	225°
SUBMISSIVE, timid, shy, subdued	0.000	-1.000	270°
SELF-EFFACING, accommodating, modest, undemanding	-0.707	-0.707	315°

The first adjective is used as label of the scale.

The factorial validity of the eight scales of the IAS-31 was tested with Structural Equation Modelling (AMOS 5.0; Arbuckle, 2003). Confirmatory factor analysis, employing maximum likelihood estimation, indicated that the eight (intercorrelated, latent) factors offered an 'acceptable' description of the observed item correlations ($NNFI = 0.87$; $CFI = 0.88$; $RMSEA = 0.065$). The goodness-of-fit indexes were just below the threshold of good fit (0.90), but a $RMSEA$ below 0.08 is considered reasonable (Vanheule, Desmet & Rosseel, 2006). Also, the relative χ^2 was lower than 3 ($\chi^2/df = 2.80$), which is considered acceptable (Kline, 1998). The technical rationale of circumplex analysis is further explained below (see Analysis).

The Personal Style Inventory (PSI; Luyten, Soenens, Vansteenkiste, & Corveleyn, 2003, translated from Robins, Ladd, Welkowitz, Blaney, Diaz, & Kutcher, 1994) comprises 48 items scored from 1 (completely disagree) to 6 (fully agree). Sociotropy is measured by three subscales: concern what others think (e.g., 'I am very sensitive to criticism by others'), dependency (e.g., 'I find it difficult to be alone all day') and pleasing others (e.g., 'I often put other people's needs before my own'). Autonomy is measured by three subscales: perfectionism/self-criticism (e.g., 'It bothers me when I feel only average and ordinary'), need for control (e.g., 'I resent it when people try to direct my behaviour or activities' and defensive separation (e.g., 'I don't like relying on others for help'). Upholding a criterion for item-total correlations of > 0.30 in

every scale, we removed one item from each of the PSI scales pleasing others, need for control and defensive separation. Alpha values for all these PSI scales were acceptable to good, ranging from 0.67 to 0.89. Attachment was assessed with the Attachment Style Questionnaire (ASQ; Van Oudenhoven & Hofstra, 2004; Van Oudenhoven, Hofstra, & Bakker, 2003). Its 24 items are scored 1 (fully disagree) to 5 (fully agree). Examples are: 'I'm comfortable in close relationships' (secure style); 'I worry others dislike me' (preoccupied); 'I fear close others will betray me' (fearful); and 'I like self-sufficiency' (dismissive). All four ASQ scales displayed adequate reliabilities, ranging from 0.70 to 0.83.

As for social network, respondents indicated whether they had 'any very close friends' yes or no, and 'only few' or 'many' other contacts.

Analysis

First, we examine the correlational structure of the 18 SOS items with principal factor analysis (PFA). Candidate clusters of items are further scrutinised for 'internal consistency' by including only those items with item-total correlations > 0.30 . A confirmatory factor analysis (CFA) is applied to corroborate the scale construction of the SA and SI scales.

Subsequently, the (nine) hypotheses formulated above are tested by simple correlational analyses. For a graphical integration of the variables, an auxiliary circumplex analysis is performed. Circumplex analysis is a kind of factor

Table 2		Factor structure of 14 items of the SOS after principal axis factoring and varimax rotation (n=429)		
<i>Item</i>		<i>Factor</i>		
		<i>1</i>	<i>2</i>	<i>3</i>
SA_5	In my social relationships, I experience such a strong sense of connection and sharing that I think in terms of 'we' rather than in terms of 'me' and 'you'.	52	15	-13
SA_7	It's easy for me to get 'in synch' with other people and to 'merge' with them during the time we're together.	65	11	-04
SA_10	I have such a strong sense of rapport with others that I can assume without question that we understand each other.	61	10	07
SA_12	In conversations, the things I say are so interconnected with the things my partner says that I don't even try to separate them.	38	05	-11
SA_14	I feel comfortable opening up to other people and sharing experiences with them.	46	16	-18
SA_17	I like the experience of merging with others and becoming part of something larger than myself.	43	26	-12
SA_1	It's easy for me to get so caught up in a conversation with someone that I lose all track of time.	18	79	02
SA_3	I tend to get completely absorbed in my interactions with other people.	40	47	-03
SA_9	I can get so absorbed in a conversation or a shared activity with someone that I forget everything else.	19	79	-01
SI_4	It's important to me to have a distinct sense of my own identity and to know how it differs from that of other people.	05	17	54
SI_8	I like to maintain a clear distinction between myself and others when I interact with them.	-26	-02	47
SI_11	I like to have a clear sense of who I am dealing with, and of how that person is different from me.	05	-05	69
SI_13	When I interact with other people, I am aware of the 'invisible barrier' that separates us.	-18	-05	45
SI_18	As a person, I have clearcut boundaries and I expect other people to respect them.	-12	-08	52
SI_2	In my interactions with others, I have a clear and definite sense of the difference between my perspective and theirs.	-01	00	25
SI_6	It's easy for me to keep track of what I contribute and what the other person contributes to a discussion.	07	-07	23
SI_15	In conversations with others, I am very aware of the thoughts and feelings I should keep to myself.	-10	-10	24
SI_16	I tend to stay absorbed in my own thoughts and feelings, even in social situations.	-24	-07	17

SA_1 = SOS item 1; SI_2 = SOS item 2, and so on. These are the SOS items as reported in Ickes et al. (2004). Loadings > |0.35| are shown in boldface; decimals have been omitted. The last four (dismissed) SI items were not subsumed in the factor analysis, but were correlated with the factor scores (estimated by 'Anderson-Rubin') stemming from the initial analysis.

analysis in which variables that can be arranged in a circular pattern (in two dimensions) serve as background for other variables. Applying this method to our data, it comes down to first approximating the octagonal configuration of the eight interpersonal scales with the aid of orthogonal procrustes rotation (Verboon, 1994; Van Geel, 2006), and subsequently, projecting the other scales within the boundaries of the octagon (cf. Wiggins & Broughton, 1991). The theoretical locations of the eight interpersonal IAS-31 scales are given in Table 1. The coordinates are cosines and sines corresponding to the ideal angular positioning in a regular octagon.

Results

Social Orientation Scale: factor analysis

The 18 SOS items were subjected to principal axis factoring (PAF) using varimax rotation. Initially, as intended, social absorption and social individuation emerged as two different factors. However, regarding social individuation, only five of the nine SI items had item-total correlations > 0.30 . The same five items were also the highest loading SI items as reported by Ickes et al. (2004), which suggests that these items constitute the core of the SI factor. These items refer to maintaining a strong distinction and boundary between the identities of self and others in a more explicit way than the four other items. A subsequent PAF, which excluded the four dismissed SI items, yielded a two-factor solution that was not appropriate either, as many of the residual correlations were larger than $|0.05|$. By extracting an additional third factor, the amount of residual correlations $> |0.05|$ dropped considerably from 31 to 10% (Table 2). Confirmatory

factor analysis (AMOS 5.0) substantiated that only the three-factor model gave an acceptable fit: (1) two-factor-model: $\chi^2/df = 4.53$, $NNFI = 0.72$, $CFI = 0.77$, $RMSEA = 0.09$; (2) three-factor-model: $\chi^2/df = 2.52$, $NNFI = 0.88$, $CFI = 0.90$, $RMSEA = 0.06$.

As can be seen in Table 2, this final three-factor solution comprises the SI-core factor and two SA subfactors; it explains 36.7% of variance of the remaining 14 SOS items. Semantically, these three factors appear to correspond to the three theoretical constructs that Ickes originally intended to measure (see introduction): (1) 'self-other distinction' corresponds with the SI core (items 4, 8, 11, 13, 18; $\alpha = 0.67$); (2) the 'experience of merging' seems common to all items in the SA subfactor that we labelled SA merging (as in merging, interconnecting, shared experience, we-ness, unquestioned understanding) (items 5, 7, 10, 12, 14 and 17; $\alpha = 0.70$); and (3) 'behavioural interdependence' resembles the SA subfactor that we labelled SA-interactive absorption, referring to absorption in a shared activity to the extent of becoming unaware of anything else (items 1, 3 and 9; $\alpha = 0.76$). For the present validation purposes we added a composite social absorption scale, aggregated across both SA subscales (Table 3); such a composite scale seems acceptable because it has an internal consistency of $\alpha = 0.77$ with all item-total correlations over 0.30.

A final note about our choice of labels. Arguably, *self-other distinction* may be a more neutral label than *social individuation (core)* and the label *social absorption* is more uniquely appropriate for the subscale *interactive absorption* than for the composed social absorption scale. We have kept the labels social absorption and social individuation (core) to facilitate the comparison with Ickes et al.'s (2004) dimensions.

Table 3 Correlations of social absorption and social individuation with interpersonal behaviour, personal style, attachment style and social network ($n = 429$)

Scale	Items retained	α	SA merging	SA interactive	SA total	SI core
Social Orientation Scale (SOS)						
Social absorption merging	6	0.70	X	0.43**	X	-0.23**
Social absorption Interactive	3	0.76	0.43**	X	X	-0.06
Social absorption total	9	0.77	X	X	X	-0.19**
Social individuation core	5	0.67	-0.23**	-0.06	-0.19**	X
Interpersonal behaviour (IAS-31)						
Friendly	4	0.74	0.35**	0.28**	0.38**	0.02
Open	4	0.83	0.41**	0.30**	0.43**	-0.10*

Scale		Items retained	α	SA merging	SA interactive	SA total	SI core
	Assertive	4	0.85	0.20**	0.15**	0.21**	0.07
	Authoritarian	3	0.72	-0.04	-0.02	-0.04	0.12*
	Calculating	4	0.83	-0.01	-0.12*	-0.06	0.21**
	Aloof	4	0.80	-0.52**	-0.25**	-0.48**	0.20**
	Submissive	4	0.79	-0.12*	-0.06	-0.12*	0.09
	Self-effacing	4	0.64	0.08	0.01	0.06	-0.03
Personal Style Inventory (PSI)							
	Sociotropy ^a	23	0.89	0.21**	0.14**	0.21**	0.04
	Concern what others think	7	0.82	0.15**	0.05	0.13**	0.05
	Dependency	7	0.70	0.20**	0.14**	0.20**	0.02
	Pleasing others	9	0.81	0.19**	0.16**	0.21**	0.03
	Autonomy ^b	22	0.86	-0.25**	-0.08	-0.21**	0.28**
	Perfectionism/self-criticism	4	0.67	0.09	0.09	0.11*	0.16**
	Need for control	7	0.73	-0.13**	0.00	-0.09	0.20**
	Defensive separation	11	0.81	-0.39**	-0.19**	-0.36**	0.27**
Attachment Style Questionnaire (ASQ)							
	Secure	8	0.83	0.37**	0.30**	0.40**	-0.16**
	Preoccupied	7	0.83	0.12*	0.06	0.11*	0.08
	Fearful	4	0.79	-0.12*	0.00	-0.09	0.30**
	Dismissive	5	0.70	-0.22**	-0.17**	-0.24**	0.17**
Social network							
	Any very close friends	1	-	0.17**	0.18**	0.20**	0.00
	Many other contacts	1	-	0.19**	0.08	0.17**	-0.10*

^a Sociotropy = concern what others think + dependency + pleasing others. ^b Autonomy = perfectionism + need for control + defensive separation. * $p < 0.05$. ** $p < 0.01$, two-tailed.

Correlational results and tests of the hypotheses

Table 3 presents the correlations between the SOS factors and the other variables. All but one of the results support our hypotheses. Social absorption correlated positively with interpersonal behaviours in the warm-assertive quadrant (cf. Hypothesis 1), sociotropy (Hypothesis 3), secure

attachment (Hypothesis 5) and having very close friends as well as many other contacts (Hypothesis 8); and negatively with dismissive attachment (Hypothesis 6). Importantly, the hypotheses for SA are supported for each of the SA subscales, with the partial exception that SA-interactive absorption showed no significant correlation for many other contacts.

The social individuation-core factor correlated positively with interpersonal behaviours in the cold-submissive quadrant (Hypothesis 2), autonomy (Hypothesis 4), and dismissive attachment (Hypothesis 7). Hypothesis 9 was only partially supported: Social individuation correlated negatively with maintaining many contacts, but showed no significant correlation with very close friends.

We conclude that we have succeeded in providing valid scales for social absorption and social individuation in Dutch. Within the unpredicted significant results, the positive correlation between social absorption and perfectionism/self-criticism is strikingly discordant with the negative correlation for the larger autonomy construct.

Circumplex analysis

Figure 1 presents the SOS scales projected into the interpersonal circumplex, offering a some-

what different perspective on the data. The ASQ and PSI scales are included as well, so the reader can have an integrated overview. For correct understanding: the projection shows how all of the variables are interrelated *in terms of interpersonal behaviour*. Variables that are close together in the same segment of the circumplex will more often than not inter-correlate positively, but the projection may deform those relations.

The position of the two SA subscales in the upper right quadrant of the circumplex signifies that high social absorption is associated with an open-friendly behavioural attitude, which it seems to have in common with secure attachment. The position of SI core in the lower left quadrant signifies more cold-alloof behaviours, which are also associated with dismissive attachment and need for control.

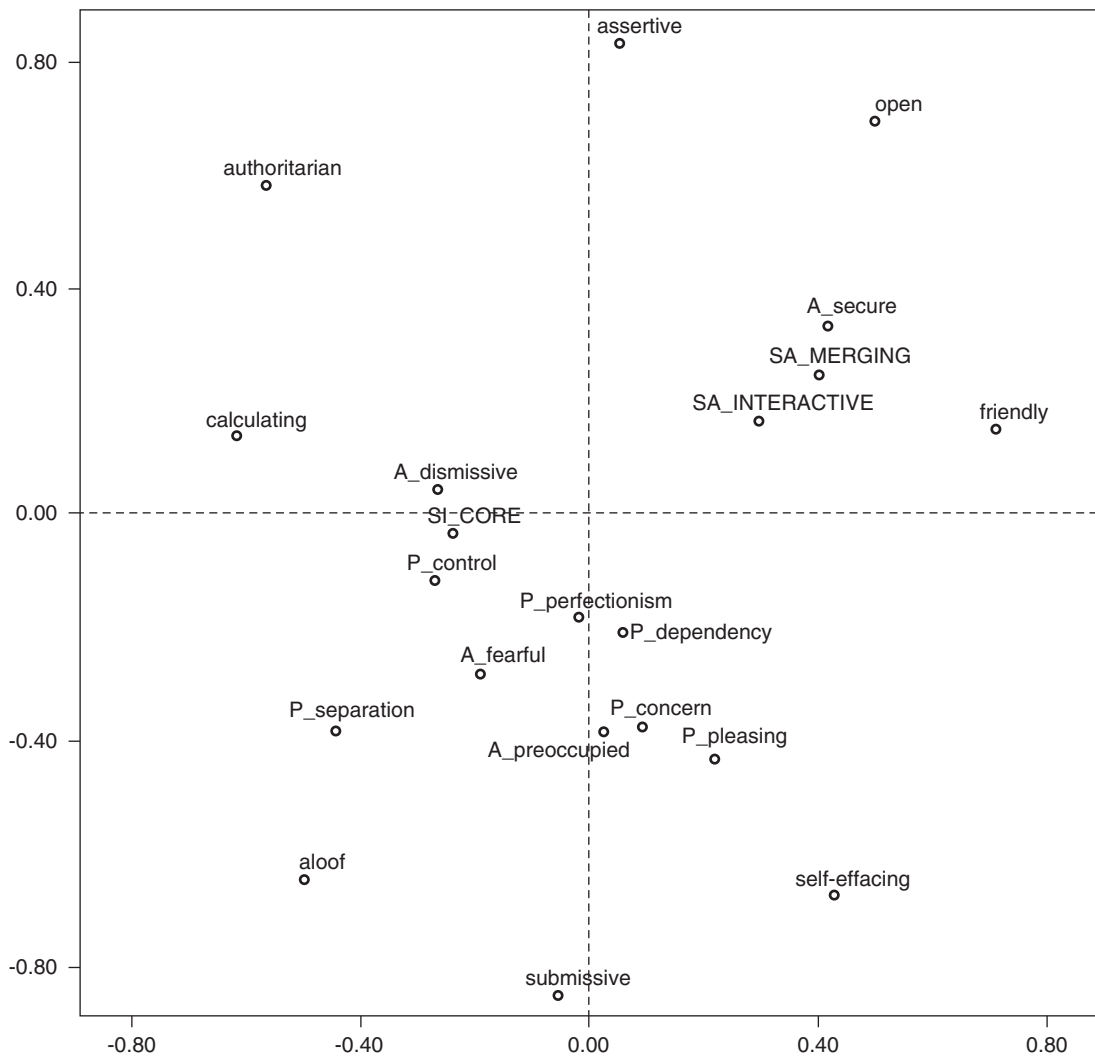


Figure 1
Interpersonal adjectives circumplex containing subscales from the Social Orientation Scale (SOS), Attachment Style Questionnaire (ASQ) and Personal Style Inventory (PSI). SOS scales are in capitals, SA = social absorption, SI = social individuation. A_ = ASQ scale, P_ = PSI scale.

Discussion

The goals of this study were to provide a Dutch language measure for social absorption (SA) and social individuation (SI) and to extend our understanding of their validity. These goals have been met. The three SOS factors that surfaced in this study seem to correspond with Ickes' three-construct conceptualisation of intersubjectivity. Nonetheless, the reliability and validity results for these three factors suggest that both SA subscales still tap into one underlying social absorption factor, which is quasi orthogonal with the social individuation (core) factor.

Validity of social absorption and social individuation

Social absorption is supported as a measure for the readiness to form interdependent relationships, as Charania and Ickes (2007) phrased it. People who score high on social absorption (versus low) tend to say they interact with others in confident, warm and outgoing ways; their attachment styles suggest that they hold positive views of others and they maintain very close and many other relationships. Conversely, a low score on social absorption seems a remarkably strong indicator for aloof behaviour.

Other results, both predicted and unpredicted, have substantial implications for the nearly exclusively healthy image of high social absorption that resulted from the previous research: High social absorption seems to entail a general sociotropic vulnerability. The counterintuitive association of social absorption with perfectionism/self-criticism may be explained by a desire to be viewed favourably (as in perfect) by others, which would correspond with the sociotropic concerns about what others think and the desire to please, and with preoccupied attachment. On the other hand, it is not surprising that people who easily and happily experience social absorption want to be aware of what others think of them and 'bravely' overcome any insecurities. Sociotropy is only presumed problematic if it is extremely present and the secure attachment result suggests that the positive aspects of social absorption may outweigh the negative.

Also, the interpersonal theory on which the circumplex is based (Leary, 1957; Wiggins, 1996; Horowitz, Alden, Wiggins, & Pincus (2000) suggests that warm-assertive behaviours invite warm-submissive behaviour in others. While such openness may generally be constructive for intersubjective relationships, if this behaviour is rigidly present to the exclusion of other behaviours (as in unmitigated communion), it may be maladaptive. These are grounds for more research.

As for social individuation, our results have identified a range of concrete interpersonal behaviours that accompany this propensity to 'cognitively' distinguish self from others and to maintain an awareness of interpersonal bound-

aries. The behaviours in question seem to serve to maintain a self-protective, objectifying (e.g. 'calculating') distance from others that fits with the anxious and distant image of high social individuation. According to the interpersonal theory, cold behaviours invite cold behaviours (Horowitz et al., 2000). This suggests that high SI behaviours may also communicate an invitation to others to respect their boundaries. This would support Charania & Ickes' (2007) conclusion that people who score high on social individuation will be dissatisfied if a partner fails to honour that invitation because he or she is low in social individuation.

The social network results importantly suggest that high social individuation is not an impediment to having very close friends, which fits with Mashek and Sherman's (2004) finding that SI was not correlated with desiring closeness with a partner. There does seem to be a slight reservation against maintaining many other connections: this might just be a consequence of distant behaviour, but we speculate that people with high social individuation are relatively selective in the company they keep: they may prefer connections with people they perceive as unthreatening to their integrity, while they dismiss others. This would also fit with the results for anxious and dismissive attachment style.

So far, social individuation may seem to measure only aspects of unmitigated agency and not the socially desirable trait that agency and the psychodynamic/developmental term 'individuation' typically denote. However, we think more research is needed to understand if high social individuation also provides adaptive features, such as self-protection, analytical distance to help appreciate others fully as individuals, and prevention of undesirable transgressive interpersonal behaviours.

Questions for future research

The questions we have already raised deserve more research, even if only to reduce the risk of over-generalised and one-sided labelling of individuals. Psychiatric labelling has been found to rob individuals of their sense of subjective integrity and adversely affect the way a labelled person experiences his intersubjective presence (Knight & Bradfield, 2003). Especially the low SA-high SI group has received a rather bleak image. Our current results for this group show a constellation of anxiety and reserved plus defensive behaviours that forms a remarkably precise recipe for the intense reaction that Hutchison (1999) observed (see Introduction, p.5, 2nd paragraph). Then again, Hutchison had only invited people with extreme scores and it seems likely that most people will recognise two or more modes of social relating, depending on the specific other, the relation one has with the other and the situation (Kenny, 1994; Mashek & Sherman, 2004). For the mode of high SA-high SI,

Ickes et al. (2004) provide the example of cooperation with respect for each other's boundaries, such as among colleagues or neighbours.

One important question here is whether an individual's scores on the general social orientation scale that we used necessarily imply the same mode of social relating towards any specific partner. Charania & Ickes (2007) and Mashek (in Ickes et al., 2004) used a partner-version of the SOS, replacing 'others' by 'my partner' in every item. Perhaps some people prefer to maintain only one very close connection (or an overseeably small in-group), while they dislike becoming very absorbed and mixed up with 'others' in general. Similar remaining questions concern the stability of social absorption and social individuation over time and situations. Still, our current information suggests that with the passage of time, over many social encounters and situations, social absorption and social individuation can have life-shaping consequences even if the traits are dynamic to a certain degree. Beside effects on someone's marital satisfaction, social network and vulnerabilities for depression or alienation, one might speculate about matters such as the (in)aptitude to engage in teamwork and other professional forms of social relating, the ability to seek social support in times when it would be healthy, or the ability to withstand long periods of loneliness (Ickes labelled the low SA-low SI mode as anonymous independence). There seem to be ample reasons why these dimensions deserve more investigation.

Practical use

For counsellors, our integrative validity information may help them analyse why certain problematic social experiences recur in a client. This may in turn convince the clients to experiment with adjusting relevant behaviours. For instance, a person who scores low on social absorption and who complains about missing connectedness with others, might investigate the possibility

that he or she is not open enough to establish the necessary common ground. This may then convince him or her to try opening up, to mutually share self-disclosing information with others or even simply to interact more.

Limitations

Limitations of this study include a possible self-selection bias due to the voluntary nature of respondent participation, self-report biases and response sets. The cross-sectional nature of this study does not allow for conclusions about causality. Also, no back-translation to English was performed on the SOS. The reliabilities of social absorption and social individuation were adequate, although modest for the social individuation-core scale ($\alpha = 0.67$). Replacing the discarded items by newly formulated ones might raise its reliability. Social network was narrowly operationalised with a simple and rather vague question. A more sophisticated measure may be more reliable and have more statistical power, but the result has been included in this report because it is an important first token of influence that social absorption and social individuation may have on someone's social network.

Conclusion

To conclude, we have provided Dutch speaking researchers and practitioners with a usable equivalent of Ickes' Social Orientation Scale. Having integrated interpersonal behaviour and preoccupations, social absorption and social individuation are proving to be informationally rich dimensions that may add to our understanding of the intricacies of intersubjective experiences and personal relationships.

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