Journal of Research in Personality 65 (2016) 89–93

Contents lists available at ScienceDirect

Journal of Research in Personality

journal homepage: www.elsevier.com/locate/jrp

Double dissociation between implicit and explicit affiliative motives: A closer look at socializing behavior in dyadic interactions

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ARTICLE INFO

Article history:
Received 9 May 2016
Revised 27 July 2016
Accepted 17 August 2016
Available online 4 September 2016

Keywords:
Social motivation
Intimacy
Affiliation
Implicit motives
Dyadic interaction
Nonverbal behavior
Picture Story Exercise

ABSTRACT

In the present research, we followed two objectives. First, we aimed to replicate the classic finding by McAdams, Jackson, and Kirshnit (1984) that strong implicit affiliative motives predict high levels of nonverbal socializing behavior (eye contact, laughing, smiling) in dyadic interactions with an unacquainted person. Second, we applied a dual-motives perspective and hypothesized a double dissociation between implicit and explicit motives. Whereas implicit motives were supposed to predict nonverbal socializing, the corresponding explicit motives were supposed to predict verbal socializing (i.e., self-disclosure). Using observational data from 123 university students in ostensibly casual conversations, the findings by McAdams et al. were replicated, and the double-dissociation hypothesis was confirmed. These results corroborate dual-motives theory in the domain of affiliative motivation.

1. Introduction

Implicit motives are recurrent concerns for specific classes of affectively charged goal states (McClelland, 1987). For affiliative motives (i.e., the needs for intimacy and affiliation), such goal states refer to establishing and maintaining positive interactions and relationships (McAdams, 1980). Thus, affiliative motives are expected to promote spontaneous, positive socializing behavior in dyadic interactions. Indeed, McAdams, Jackson, and Kirshnit (1984) found that, in a dyadic interview situation, college students scoring high on the implicit intimacy motive displayed higher levels of nonverbal socializing behavior than students scoring low on the motive. Specifically, a strong intimacy motive predicted more eye contact with the interviewer and more laughing and smiling. These effects were independent of age and gender and unaffected by a manipulation of the interviewer's reciprocal behavior (i.e., whether interviewers reacted to the participants' autobiographical stories with reports of their own experiences or not).

This classic study corroborated the predictive validity of affiliative motives assessed with the Picture Story Exercise (PSE), in which implicit motives are inferred from imaginative stories generated in response to ambiguous pictures (Pang, 2010). This indirect method has been criticized for psychometric problems (see Lang, 2014 for an overview of this methodological debate). Also, the validity of results from personality and social psychology in general has been called into question in the ongoing replicability debate (e.g., Open Science Collaboration, 2015). Thus, our first objective was to replicate the principal finding of McAdams et al. (1984), namely that implicit affiliative motives predict nonverbal socializing behavior in dyadic interactions with an unacquainted person.

In addition, we applied a dual-motives perspective accounting for both implicit and explicit representations of affiliative motives. According to McClelland, Koestner, and Weinberger (1989), implicit and explicit motives are distinct dispositions rooted in functionally independent motivational systems. Whereas implicit motives are nonconscious affective preferences, explicit (or self-attributed) motives are cognitively elaborated aspects of the motivational self-concept. Previous research has confirmed that implicit and explicit motives are only weakly related (Köllner & Schultheiss, 2014). Importantly, the two motivational systems differ in the kinds of behavior they are assumed to guide. According to Schultheiss (2001), explicit motives respond to verbal symbolic stimuli (e.g., questions asked by an interaction partner) and guide deliberate aspects of behavior (e.g., the content of the answers to

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http://dx.doi.org/10.1016/j.jrp.2016.08.003
0092-6566/

the questions of an interaction partner). Explicit motives can therefore be assessed with declarative measures that reflect a person's verbally represented self-concept. Conversely, implicit motives are aroused by nonverbal experiential stimuli (e.g., the friendly facial expression of an interaction partner) and guide more spontaneous behavior that is less controlled by a person's conscious intentions (e.g., physiological responses or nonverbal communication behavior). Accordingly, implicit motives are assessed with non-declarative measures.

Based on dual-motives theory, we expected a double dissociation between implicit and explicit affiliative motives in the prediction of different kinds of socializing behavior in casual dyadic interactions. Specifically, we hypothesized that implicit motives predict nonverbal, but not verbal socializing, whereas explicit motives predict verbal, but not nonverbal socializing (see Wegner, Bohnacker, Mempel, Teubel, & Schuler, 2014 for a similar hypothesis in a sports context).

2. Method

The following descriptions were partly adopted from an article by Dufner, Arslan, Hagemeyer, Schönbrodt, and Denissen (2015), which was based on the same data set.

2.1. Participants and procedure

We analyzed existing data from a broader research project on motive dispositions conducted in two waves of assessment. The project was aimed at a sample size of 200 participants, which allows for the detection of the average effect size in social psychological research, estimated at $r = 0.21$ by Richard, Bond, and Stokes-Zoota (2003), with a statistical power >80% at a Type-1 error probability of 5%. Participants were students from different universities in the Berlin area of Germany studying diverse subjects, excluding psychology. As an incentive, participants were offered monetary compensation (€120) and individual feedback about their personalities. Socializing behavior was observed at Wave 2 only, and thus we focused on data from this wave. A total of 191 students took part in two internet studies for the assessment of their implicit and explicit motives and in an extensive individual laboratory session including the observation of dyadic interactions with an experimenter. Because of a technical malfunction, these planned interactions were recorded only for 123 participants, which reduced the statistical power. In this group, age ranged from 22 to 36 years ($M = 27.3$, $SD = 2.9$). Eighty-three participants were female.

At the end of the laboratory session, which included tasks unrelated to the present investigation, the experimenter commenced an ostensibly casual conversation in a friendly and open manner. Participants were unaware that these conversations were part of the investigation, but were debriefed afterwards. The conversations were structured by five questions of the experimenter asking how the participants liked the experiment, whether they had finished their studies yet and how they felt about their current situation and their future plans (see supplemental materials for details). The experimenter asked one question at a time and allowed participants to speak for as long as they wanted. The duration of these conversations ranged from 42 to 345 s ($M = 128.3$, $SD = 66.6$).

2.2. Measures

2.2.1. Implicit and explicit affiliative motives

To assess the implicit need for affiliation-intimacy (henceforward termed *nAffiliation*), a variant of the PSE was employed. In the PSE, participants invent stories in response to ambiguous pictures. These stories are content-coded for the appearance of motive-related themes and expressions. Usually, participants are presented with a sequence of four to eight pictures in a single session (Pang, 2010). To achieve a higher level of aggregation and avoid bias due to fatigue and momentary mood states, PSE data were assessed as a part of a diary study conducted online. Over a period of two weeks, participants responded to one picture per day. Each picture was presented for 10 s, and participants had 5 min time to write an imaginative story about the depicted scene. Fourteen different pictures were employed. Six pictures are widespread in the literature (*couple by a river, trapeze artists, nightclub, women in laboratory, boxer, ship captain* (e.g., Pang & Schultheiss, 2005), another six pictures were taken from Heckhausen's (1963) variant of the TAT (*several men in an office, a boy sitting at a desk, a man sitting at a desk, a man in an office, a conference group, a group of workers*), and two additional pictures (*a mountaineer, a snowboarder*) were self-chosen. Participants' stories were content-coded for nAffiliation using Winter's (1994) coding system. Two trained coders were randomly assigned to different cases. Absolute agreement among coders as assessed in a subset of 63 stories was high (*intraclass correlation* = 0.93). To obtain raw motive scores, we calculated each participant's average number of nAffiliation categories per story ($M = 0.52$, $SD = 0.32$). These raw scores correlated with story length (i.e., a person's average word count per story; $r = 0.52$, $p < 0.001$). To avoid confounding with verbal fluency, we residualized the raw scores for story length in a linear regression on person level and used the corrected motive scores in all further analyses (Pang, 2010).

It is noteworthy that Winter's (1994) measure is not identical to the measure of the intimacy motive employed by McAdams et al. (1984). It is rather a combination of two classic coding systems for the needs for affiliation and intimacy, respectively. However, the contents of the two systems show broad similarities, and a review of the literature revealed that their average intercorrelation was 0.58 (see details in the supplemental materials). Thus, the classic measures of the needs for affiliation and intimacy seem to reflect facets of an overarching communal motive, and using a combined measure like Winter's (1994) system seems justified. Also, our hypothesis applies to both facets.

To measure the explicit, self-attributed need for affiliation-intimacy (henceforward termed *sanAffiliation*), we used the 6-item versions of the *Unified Motive Scales* (*UMS*; Schönbrodt & Gerstenberg, 2012) for affiliation and intimacy. Example items are "I spend a lot of time visiting friends" (affiliation) and "I like to fully immerse myself in a relationship" (intimacy). Usually, UMS items are rated on six-point scales. However, due to a technical error, the highest response category was not displayed for all items except for two, such that, in most cases, item values could only range between 1 and 5. Thus, all items were *z*-standardized before aggregation. Affiliation and intimacy items were collapsed and averaged to approximate the bandwidth of the PSE measure of nAffiliation. Internal consistency of the resulting 12-item scale ($M = 0.00$ due to item standardization, $SD = 0.59$) was good ($\alpha = 0.83$), and sanAffiliation correlated modestly with nAffiliation ($r = 0.27$, $p = 0.005$). Next to the UMS, two additional scales were employed to assess the explicit affiliation motive (see supplemental materials for details). The UMS were chosen a priori for the main analyses because they possess increased measurement precision and incremental validity compared to established scales (Schönbrodt & Gerstenberg, 2012). In addition, their contents, referring to both intimacy and affiliation, bear the greatest resemblance with the PSE measure.